



THE CIBJO BLUE BOOK SERIES

THE Gemstone Book



## Table of contents

|                                                                              |    |
|------------------------------------------------------------------------------|----|
| Foreword .....                                                               | iv |
| Introduction.....                                                            | vi |
| 1. Scope .....                                                               | 8  |
| 2. Normative references .....                                                | 8  |
| 3. Classification of materials .....                                         | 9  |
| 3.1. Natural materials .....                                                 | 9  |
| 3.1.1. Gemstones.....                                                        | 9  |
| 3.2. Artificial products.....                                                | 9  |
| 3.2.1. Composite stones.....                                                 | 9  |
| 3.2.2. Synthetic stones .....                                                | 10 |
| 4. Normative clauses.....                                                    | 10 |
| 4.1. General clauses.....                                                    | 10 |
| 4.1.1. Description and display .....                                         | 10 |
| 4.1.1.1. Disclosure.....                                                     | 10 |
| 4.1.1.1.1. Verbal Disclosure .....                                           | 10 |
| 4.1.1.1.2. Written Disclosure .....                                          | 10 |
| 4.1.1.2. Terms designed to disguise .....                                    | 11 |
| 4.1.1.3. Display.....                                                        | 11 |
| 4.1.1.4. Name of cuts .....                                                  | 11 |
| 4.1.1.5. Chatoyancy .....                                                    | 11 |
| 4.1.1.6. Asterism .....                                                      | 11 |
| 4.1.1.7. Cultured.....                                                       | 11 |
| 4.1.1.8. Semi-precious .....                                                 | 11 |
| 4.1.2. Weight .....                                                          | 11 |
| 4.1.2.1. Carat .....                                                         | 12 |
| 4.1.2.2. Rounding.....                                                       | 12 |
| 4.1.3. Measurements .....                                                    | 12 |
| 4.2. Gemstone clauses.....                                                   | 12 |
| 4.2.3. Place of origin.....                                                  | 12 |
| 4.2.3.1. Geographic areas .....                                              | 12 |
| 4.2.3.2. Origin opinion.....                                                 | 13 |
| 4.2.3.3. Origin and quality .....                                            | 13 |
| 4.2.3.4. Processing centres and places or origin.....                        | 13 |
| 4.2.4. Commercial names.....                                                 | 13 |
| 4.2.4.1. Mineralogical names .....                                           | 13 |
| 4.2.4.2. Biological names.....                                               | 13 |
| 4.2.4.3. Chatoyancy and asterism.....                                        | 13 |
| 4.2.4.4. Approval of commercial names.....                                   | 13 |
| 4.2.4.5. Names of gemstones used in direct conjunction with each other ..... | 13 |

|            |                                                                                          |    |
|------------|------------------------------------------------------------------------------------------|----|
| 4.2.5.     | Treated Gemstones .....                                                                  | 14 |
| 4.2.5.1.   | Informing the customer .....                                                             | 14 |
| 4.2.5.1.1. | Prior to closing a sale .....                                                            | 14 |
| 4.2.5.1.2. | At the closing of a sale or in the event of a written presentation .....                 | 14 |
| 4.2.5.1.3. | In advertisements and or any other promotional material .....                            | 14 |
| 4.2.5.1.4. | Gemstones that are suspected, without certainty, of being treated.....                   | 14 |
| 4.2.5.2.   | Treatment codes, types of treatments and methods to disclose treated gemstones. ....     | 15 |
| 4.3.       | Artificial products clauses.....                                                         | 16 |
| 4.3.1.     | General clauses .....                                                                    | 16 |
| 4.3.1.1.   | Display.....                                                                             | 16 |
| 4.3.1.2.   | Names of geographical areas.....                                                         | 16 |
| 4.3.1.3.   | The terms “real”, “precious”, “genuine”, “natural”, “cultured” .....                     | 16 |
| 4.3.1.4.   | Names of natural materials.....                                                          | 16 |
| 4.3.2.     | Artificial products partially made by man (composite stones) .....                       | 16 |
| 4.3.2.1.   | Description and display.....                                                             | 16 |
| 4.3.2.1.1. | Opal doublet .....                                                                       | 17 |
| 4.3.2.1.2. | Opal triplet.....                                                                        | 17 |
| 4.3.2.1.3. | Opal mosaic .....                                                                        | 17 |
| 4.3.2.2.   | Terms other than specified in clause 4.3.2.1 .....                                       | 17 |
| 4.3.3.     | Synthetic stone clauses .....                                                            | 17 |
| 4.3.3.1.   | Description and display.....                                                             | 17 |
| 4.3.3.2.   | Terms other than “synthetic” .....                                                       | 17 |
| 4.3.3.3.   | Brand or manufacturer’s name .....                                                       | 17 |
| 4.3.4.     | Artificially crystallised products with no natural counterparts (artificial stones)..... | 18 |
| 4.3.4.1.   | Description and display.....                                                             | 18 |
| 4.3.4.1.1. | Name similarities .....                                                                  | 18 |
| 4.3.4.1.2. | Terms other than “artificial product”, “artificial stone” or “imitation”. ....           | 18 |
| 4.3.5.     | Artificial uncrystallised products.....                                                  | 18 |
| 4.3.5.1.   | Descriptions and display .....                                                           | 18 |
| 4.3.5.2.   | Terms other than those specified in clause 4.3.5.1 .....                                 | 19 |
| 5.         | Terms and Definitions .....                                                              | 19 |
| 6.         | Annex A - Care requirements (Also see clause 8 Annex C) .....                            | 30 |
| 6.1.       | Normal care .....                                                                        | 30 |
| 6.2.       | Special Care.....                                                                        | 30 |
| 7.         | Annex B (normative) Trade codes for Gemstones.....                                       | 31 |
| 7.3.       | Trade codes for care requirement.....                                                    | 32 |
| 7.3.1.     | Code for gemstones and treated gemstones that require normal care.....                   | 32 |
| 7.3.2.     | Code for gemstones and treated gemstones that require special care.....                  | 32 |
| 8          | Annex C (normative) List of gemstones .....                                              | 32 |
| 9          | References.....                                                                          | 90 |

## Foreword

CIBJO is the French acronym for the Confédération Internationale de la Bijouterie, Joaillerie, Orfèvrerie, des Diamants, Perles et Pierres, which translates as the International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones (normally shortened to the International Jewellery Confederation). Founded in 1926 as BIBOAH, a European organisation whose mission was to represent and advance the interests of the jewellery trade in Europe, it was reorganised in 1961 and renamed CIBJO, in 2009 it was once again reorganised and officially named “CIBJO, The World Jewellery Confederation”. Today CIBJO, which is domiciled in Switzerland, is a non-profit confederation of national and international trade associations including commercial organisations involved in the jewellery supply chain. It now has members from countries representing all five continents of the world. CIBJO printed its first deliberations on terminology and trade practices in 1968.

It is the task of CIBJO to record the accepted trade practices and nomenclature for the industry throughout the world. The records of the trade practices complement existing fair trade legislation of a nation or in the absence of relevant national laws they can be considered as trading standards. In countries where laws or norms exist, which conflict with the laws, norms or trade practices in other countries, CIBJO will support the national trade organisations to prevent trade barriers developing. The purpose of CIBJO is to encourage harmonisation, promote international co-operation within the jewellery industry, consider issues which are of concern to the trade worldwide and to communicate proactively with members. Foremost amongst these the aim is to protect consumer confidence in the industry. CIBJO pursues all of these objectives through informed deliberation and by reaching decisions in accordance with its Statutes. CIBJO relies upon the initiative of its members to support and implement its standards, and to protect the trust of the public in the industry.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The work of CIBJO is accomplished through Committees, Commissions and Sectors. Committees and Commissions consider standards for use in the jewellery supply chain. Sectors represent levels of trade in the jewellery industry. Sectors and commissions advise the Executive Committee on current trade practices and issues that affect the jewellery industry.

Three independent sectors exist within the confederation:

Sector A - The Products Sector

Sector B - The Supply Chain Sector

Sector C - The Service Sector

The Executive Committee may appoint Commissions that consider detailed issues. At present these are:

Coloured Stone

Diamond

Ethics

Gemmological

Marketing & Education

Pearl

Precious Metals

Responsible Sourcing

The Commissions for, Diamonds, Gemstones, Pearls and Precious Metals have collated the guidelines, which present the accepted trade practices for applying descriptions to these materials. It is in the best interest of all those concerned to be aware of them.

The Sectors and Commissions will propose changes in the standards, also known as the Blue Books, to the Executive Committee. After review the Executive Committee will submit the accepted proposals for adoption to the Board of Directors and if approved they will notify the assembly of delegates of the changes at the annual congress. Furthermore, it is our mutual responsibility to support these recommendations, which concern all professional people connected with diamonds, gemstones, pearls and precious metals. CIBJO Standards are subject to government regulations in the respective jurisdictions of CIBJO members.

The national umbrella organisation for each country represents, in principle, all the national trade organisations involved in the sectors mentioned above. This democratic structure, which has contributed to CIBJO's world-wide recognition also includes international trade and commercial organisations, it provides an international forum for the trade to collectively draw attention to issues and implement resulting decisions.

CIBJO Secretariat:

CIBJO, The World Jewellery Confederation  
Viale Berengario, 19  
20149 Milano, Italy

Tel: +39-02-4997-7098 / 7097 / 6187

E-mail: [cibjo@cibjo.org](mailto:cibjo@cibjo.org)

Web site: [www.cibjo.org](http://www.cibjo.org)

## Background

CIBJO's status on the Economic and Social Council of the United Nations (ECOSOC) enables it to represent the jewellery industry and present its strategy and objectives in support of the UN development goals. CIBJO's strategy in this respect is multi-layered. It serves to protect its constituents from factors that threaten the confidence of consumers in the jewellery industry, as well as factors that threaten the confidence of consumers in the jewellery product itself, and at the same time promote the jewellery industry, which creates sustainable economic and social opportunity in the countries and regions in which it is active.

The harmonisation of industry standards is a critical element of CIBJO's mission and stands at the heart of its effort to protect the confidence of consumers in the jewellery product itself. To advance the goal of universal standards and terminology in the jewellery industry, CIBJO developed its "Blue Book" system, which involves a definitive set of standards for the grading, methodology and nomenclature of diamonds, coloured gemstones, pearls and other organic materials, precious metals and gemmological laboratories.

## Introduction

This CIBJO Gemstone book is designed to assist and guide all those involved with gemstones and artificial products, by recording the accepted trade practices and nomenclature for the industry throughout the world.

The standard/rules are non-judgmental and the definitions and clauses contained herein are designed to prevent unfair or deceptive trade practices, they are formatted and worded only to ensure that each gemstone and artificial product bought or sold is done with clarity and honesty. The stability of the market place depends upon the use of the proper nomenclature and the declaration of all known facts that ensure a fully informed purchase or sale, throughout the distribution pipeline all the way to the final consumer.

The following definitions apply in understanding how to implement CIBJO Blue Books and some of its normative references, e.g. when applicable ISO standards.

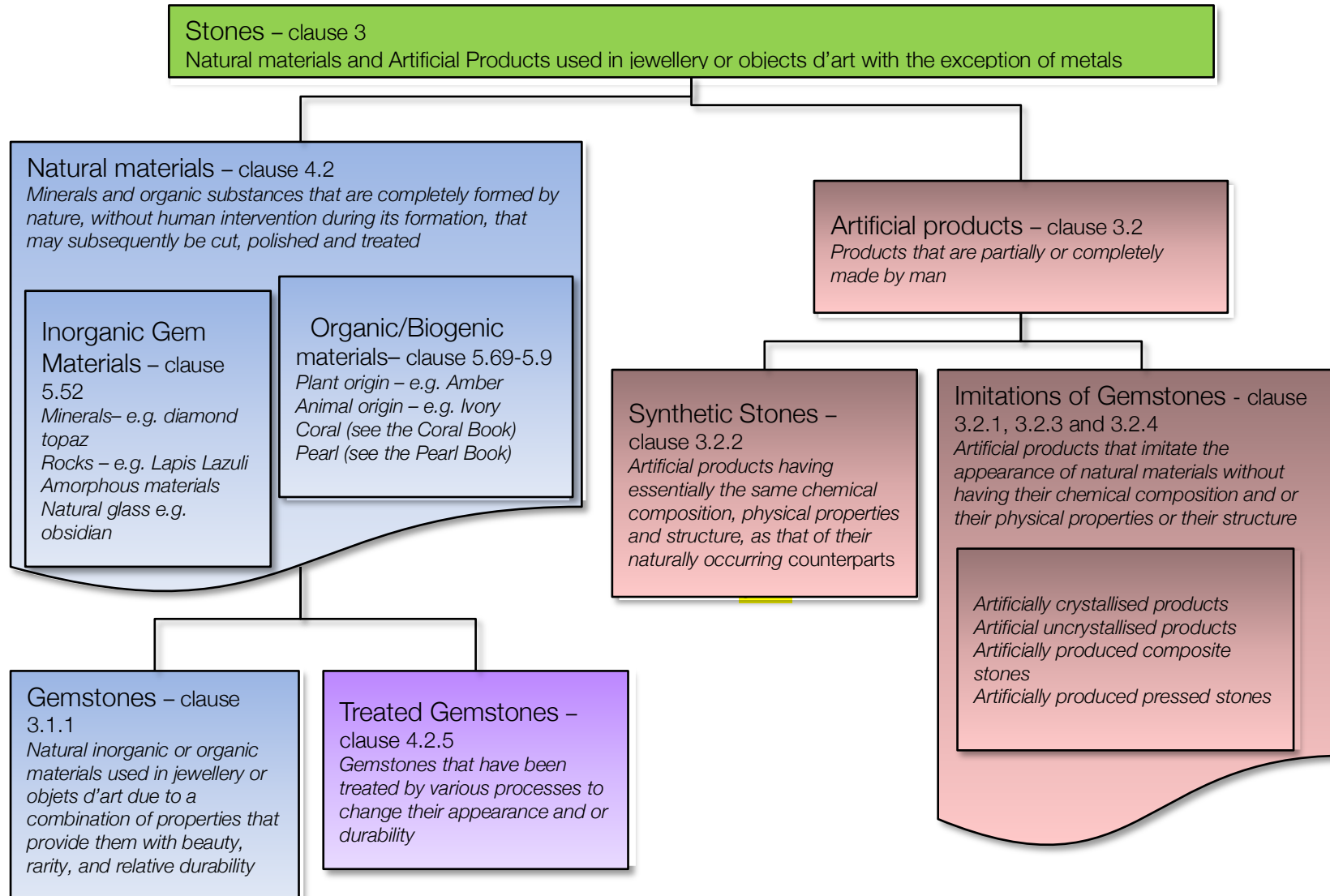
- "shall" indicates a requirement;
- "should" indicates a recommendation;
- "may" is used to indicate that something is permitted;
- "can" is used to indicate that something is possible.

The Scope (1) of the book is set out, as are the Normative References. The Terms and Definitions (5) are expansive and are extensively cross referenced throughout the Classifications of Materials (3), Normative Clauses (4), Annex and Tables (8). It is important that the reader refers to the relevant Terms and Definitions when consulting each Normative Clause.

The CIBJO Coloured Gemstone Commission

September, 2026

## Gemstone, organic materials and artificial product chart



# GEMSTONES AND ARTIFICIAL PRODUCTS — TERMINOLOGY AND CLASSIFICATION

## 1. Scope

The terminology and classification of gemstones (5.42) and artificial products (5.3) are established with reference to commercial usage, in conformity with the classifications and practices of the gemstone, artificial product and jewellery trades. It shall be used by all traders participating as members of CIBJO member organisations within all member nations.

NOTE — CIBJO recognises that its standards are subject to government regulations in the respective jurisdiction of CIBJO members. In the event there are no government regulations in a member's country, the local Industry Rule will take precedence as long as it is stricter.

## 2. Normative references

The following references are useful for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced documents (including any amendments) applies.

The Coral Book, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario,19, 20149 Milano, Italy. [cibjo@cibjo.org](mailto:cibjo@cibjo.org)

The Diamond Book, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario,19, 20149 Milano, Italy. [cibjo@cibjo.org](mailto:cibjo@cibjo.org).

The Gemmological Laboratory Book, CIBJO, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario,19, 20149 Milano, Italy. [cibjo@cibjo.org](mailto:cibjo@cibjo.org).

The Pearl Book, CIBJO (International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario,19, 20149 Milano, Italy. [cibjo@cibjo.org](mailto:cibjo@cibjo.org).

The Precious Metal Book, CIBJO (International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario,19, 20149 Milano, Italy. [cibjo@cibjo.org](mailto:cibjo@cibjo.org).

The Responsible Sourcing Book, CIBJO (International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario 19, 20149, Milano, Italy. [cibjo@cibjo.org](mailto:cibjo@cibjo.org)

Convention on International Trade in Endangered Species of Wild Fauna and Flora, Appendices I, II and III valid from 22 May 2009. International Environment House • Chemin des Anémones • CH-1219 Châtelaine, Geneva, Switzerland, [info@cites.org](mailto:info@cites.org)

The definition of a mineral, E.H. Nickel, Canadian Mineralogist, Vol. 33, No. 3, pp. 689-690, (1995) (Nickel 1995a)

### 3. Classification of materials

The jewellery industry recognises two categories of material: natural materials, clause 3.1 and artificial products, clause 3.2.

#### 3.1. Natural materials

Only materials that have been formed completely by nature without human interference/intervention qualify as “natural” within this standard.

##### 3.1.1. Gemstones

Gemstones (5.42) encompass minerals, natural glasses, rocks, organic gem materials and biogenic gem materials:

| Type                                                                                                             | Examples                                                                                    |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Minerals (5.58)                                                                                                  | diamond, garnet*, opal, tourmaline*                                                         |
| Natural glasses (5.45)                                                                                           | obsidian, moldavite, desert glass                                                           |
| Rocks (5.82)                                                                                                     | lapis lazuli, opal with matrix and turquoise with azurite, pyroxene jade and amphibole jade |
| Organic gem materials (5.69);                                                                                    | amber and jet                                                                               |
| Biogenic gem materials (5.9)                                                                                     | Pearl, coral                                                                                |
| See clause 8 annex C for an alphabetic listing of gemstone (5.42) species, varieties and their commercial names. |                                                                                             |

NOTE – For specific diamond, pearl and coral, trade rules and nomenclature refer to CIBJO’s normative references listed in Clause 2, in addition to the CIBJO Guides for pearl, coral, jade and opal.

\* For some gemstones it is common in the trade to use the name of the respective mineral group or super group, e.g., garnet, tourmaline, rather than the name of the mineral species, varieties and commercial names, e.g., pyrope, elbaite

##### 3.1.2. Treated gemstones

Treated gemstones encompass all gemstones/materials (3.1.1) that have been subjected to a treatment (5.93). See clause 4.2.5

#### 3.2. Artificial products

Products which include a variety of materials that are partially or completely made by man, see clause 5.3.

##### 3.2.1. Composite stones

The materials used for composite stones may be natural stones and artificial products in various combinations, examples of which include garnet topped doublets, emerald on glass doublets, natural sapphire on synthetic ruby doublets as well as ruby-glass composites,

pressed amber and emerald on emerald doublets, artificial stone YAG on artificial stone Strontium titanate, and emerald on emerald doublets. See clause 4.3.2.

### **3.2.2. Synthetic stones**

Synthetic stones encompass those materials that are defined in clause 5.90; examples which are commercially available include synthetic ruby, synthetic sapphire, synthetic emerald, synthetic amethyst and synthetic diamond, See clause 4.3.3.

### **3.2.3. Artificially stones - crystallised**

Artificially crystallised products with no known natural counterpart include, e.g., yttrium aluminium garnet (YAG) and gadolinium gallium garnet (GGG). See clause 5.5

### **3.2.4. Artificial materials - uncrystallised**

Artificial uncrystallised materials include man made glass (5.45), lead glass (5.56), plastic and products of various compositions, such as pressed or bonded materials (e.g. pressed turquoise, pressed amber, bonded lapis lazuli) that are used to imitate the appearance of gemstones and organic gem materials, glass-ceramics. See clause 4.3.5

## **4. Normative clauses**

### **4.1. General clauses**

#### **4.1.1. Description and display**

All materials classified in clause 3 shall be named, described and displayed in accordance with the definitions, annexes and the terminology set out in all the clauses herein. This applies to all publications, advertisements (5.2), communications addressed to consumers prior to or during a final sale, as well as to all commercial documents (5.19) (e.g., offers, labels, memos, delivery notes and invoices) and to appraisals, identification reports, certificates, etc.

##### **4.1.1.1. Disclosure**

Full disclosure (5.28) by the vendor to the purchaser of all material information (5.57) shall take place whether or not the information is specifically requested and regardless of the effect on the value of the product being presented or sold.

##### **4.1.1.1.1. Verbal Disclosure**

Full verbal disclosure (5.28) shall take place using clear and understandable language prior to the completion of a sale.

##### **4.1.1.1.2. Written Disclosure**

Full written disclosure (5.28) shall be conspicuously included on all commercial documents (5.19) in clear and plain language so as to be readily understandable to the purchaser. The disclosure shall immediately precede the description of the materials listed in clause 3 and shall be equally conspicuous to that description.

#### **4.1.1.2. Terms designed to disguise**

It is contrary to the purposes of this document to make any misleading or deceptive statement, representation or illustration relating to origin, formation, production, condition or quality that does not conform in all respects with any and all the clauses contained herein.

The terms “natural treated gemstone” or “treated natural gemstone” shall not be used because they can be misleading.

Example: “natural treated ruby”, “treated natural amber”.

#### **4.1.1.3. Display**

In cases when gemstones are displayed, or jewellery is decorated, with treated gemstones (5.92), composite stones (5.21) and artificial stones (5.5), an easily noticeable and legible label adjoining each item shall clearly indicate the precise nature of the objects being shown in accordance with the clauses herein, also see clause 4.2.5.

#### **4.1.1.4. Name of cuts, cutting styles or shapes**

The name of cuts, cutting styles or shapes shall only be used in conjunction with the correct name of the material from which it is fashioned.

Examples - brilliant-cut YAG (artificial product), cushion-shape sapphire, pear-shape treated topaz, rose-cut emerald, baguette-shape synthetic ruby, emerald-cut treated sapphire, cabochon-cut pressed amber (artificial product), shell cameo, oval-shaped garnet-glass doublet

NOTE — A round brilliant-cut diamond may be described as a “brilliant”, without any additional description of the material. See the CIBJO Diamond Blue Book.

#### **4.1.1.5. Chatoyancy**

Stones displaying chatoyancy (5.15) shall be described by their correct name with the prefix/suffix “cat’s-eye” or the prefix “chatoyant”.

Examples - « Cat’s-eye tourmaline », « Tourmaline cat’s-eye », « Chatoyant tourmaline ».

#### **4.1.1.6. Asterism**

Stones displaying asterism (5.7) shall be described by their correct name with the prefix “star” or “asteriated” or the suffix “asteria”.

Examples - « Synthetic star ruby », « Asteriated quartz », « Quartz asteria ».

#### **4.1.1.7. Cultured**

The term “cultured” (5.25) or “cultivated” shall only be used for cultured pearls.

#### **4.1.1.8. Semi-precious**

The term “semi-precious” (5.83) is misleading and shall not be used.

### **4.1.2. Weight**

**4.1.2.1. Carat**

The weight (5.100) of a gemstone shall be expressed in carats (ct); one carat is equivalent to 200 mg (1/5 g). The weight of a gemstone shall be stated to two decimal places.

**4.1.2.2. Rounding**

Weight shall be rounded upwards if the third decimal is a 9, for example:

| Weight (ct) | Rounding (ct) |
|-------------|---------------|
| 0.996       | 0.99          |
| 0.998       | 0.99          |
| 0.999       | 1.00          |

NOTE — One-hundredth of a carat may be expressed as a “point”.

NOTE — It is unfair trade practice to misrepresent the weight of any stone or to deceive as to the weight of any stone. It is also an unfair trade practice to state or otherwise represent the weight of all stones contained in any article unless such weight figure is accompanied with equal emphasis and prominence by the words “total weight”, or words of similar meaning, so as to indicate clearly that the weight so stated or represented is that of all stones in the article and not that of the centre or largest one.

**4.1.3. Measurements**

The measurements of a stone shall be expressed in millimetres to two decimal places. The following measurements shall apply;

- round shape: minimum diameter, maximum diameter and depth (total height);
- other shapes: length, width and depth (total height).

**4.2. Gemstone clauses****4.2.1. Use of terms**

Only those gemstones (3.1.1) that conform to the definition contained in 5.42 and 5.58 shall be described as natural gemstones and all descriptions for natural gemstones shall conform to the content of all other clauses herein.

**4.2.2. The terms “Real”, “Precious”, “Genuine” or “Natural”**

The adjectives “real” (5.78), “precious” (5.76), “genuine” (5.44) or “natural” (5.63) shall only be used to refer to or designate natural materials.

NOTE — It is unnecessary to note the genesis of a natural material, as the use of the correct name of the material alone and without qualification states that it is natural.

**4.2.3. Place of origin****4.2.3.1. Geographic areas**

Names of geographical areas shall only be used when they denote the areas where gemstones have been mined, or found/sourced (place of origin).

#### **4.2.3.2. Origin opinion**

When places of origin for gemstones are presented they shall be considered as a matter of opinion.

#### **4.2.3.3. Origin and quality**

Place of origin does not imply a level of quality.

#### **4.2.3.4. Processing centres and places of origin**

Names of cutting, processing or exporting centres shall not be used to imply geographical origin.

### **4.2.4. Commercial names**

Annex 8 lists the correct commercial names of the most common gemstones.

NOTE - The correct mineral name preceded or followed by a colour description may substitute for any variety or trade name.

#### **4.2.4.1. Mineralogical names**

Stones which are not listed in Annex 8 shall be described by their mineralogical name (as recognised by the International Mineralogical Association) or geological name only.

NOTE — The mineralogical name of a stone may be used in place of its commercial name(s).

#### **4.2.4.2. Biological names**

Organic substances not specifically included within Clause 8 shall be described by their biological names.

#### **4.2.4.3. Chatoyancy and asterism**

Stones that display chatoyancy (5.15) or asterism (5.7) (whether listed in Clause 8 or not) shall be described according to clauses 4.1.1.5 or 4.1.1.6.

#### **4.2.4.4. Approval of commercial names**

All commercial names not listed in Clause 8, whether new or old, shall be submitted to CIBJO for approval and inclusion within this standard.

#### **4.2.4.5. Names of gemstones used in direct conjunction with each other**

Apart from the combinations given in Clause 8, do not use the names of gemstones (5.42) in direct conjunction with each other (for description of colour or otherwise) in such a fashion, that the identity of the material is not apparent.

Examples of name combinations that shall not be used are: (alexandrite sapphire), (topaz quartz), (citrine topaz), (topaz Citrine).

## **4.2.5. Treated Gemstones**

Gemstones (5.42) may be treated (5.92) before or after cutting on the surface or within the stone (5.88) to modify their colour, clarity and or durability by various processes at varying levels of intensity and/or stability (5.87).

NOTE - Gemstones have historically and traditionally been treated. The methods of the treatment processes vary within each variety and may change as new methods are developed.

NOTE - In previous publications of the CIBJO Gemstone Book treatment types have been characterised by defining each as either requiring a 'specific disclosure' or a 'general disclosure', a system that has served the jewellery industry well for many years. However, as an increasing number of complex treatments reach the marketplace the clauses in this version advocate an equal amount of transparency for all gemstone treatments.

### **4.2.5.1. Informing the customer**

It is in the best interest and responsibility of the trade for consumers to be fully informed with regards to any treatments (5.92) applied to gemstones. Treatments may impact a gemstone value, and are often not permanent or may require special care (5.86); the seller shall therefore inform the purchaser about the treatment and any special care (5.86) requirements. For special care requirements also see Clause 6 Annex A.

#### **4.2.5.1.1. Prior to closing a sale**

Members of the trade shall inform their customers which type of treatment a gemstone has undergone and ensure that they understand the gemstone has been treated by one or more of the processes mentioned in clause 4.2.5.2.

#### **4.2.5.1.2. At the closing of a sale or in the event of a written presentation**

The proper treatment description, adjoining the name of the gemstone, shall be clearly indicated on the purchaser's invoice and on any other commercial documents (5.19) that may be used to conclude a sale. See clause 4.2.5.2.

#### **4.2.5.1.3. In advertisements and or any other promotional material**

When unmounted gemstones, or gemstones mounted in jewellery, can be purchased without the possibility to be examined, and the advertisement (5.2) or solicitation indicates a price for that product, any treatment applied to the gemstones shall be disclosed according to clause 4.2.5.

#### **4.2.5.1.4. Gemstones that are suspected, without certainty, of being treated**

In the event there is a possibility that a gemstone may have been treated (5.92) and/or the seller does not have the documentation to confirm any treatment information, or if a treatment is not currently determinable scientifically or testing is not economically feasible, it is prudent and appropriate to disclose the suspected treatment rather than not. In any such cases the seller shall inform the purchaser of the possible treatments.

#### 4.2.5.2. Treatment codes, types of treatments and methods to disclose treated gemstones.

The following chart includes:

- a) a list of codes that are to be used within the trade only, See Clause 7 Annex B.
- b) types of gemstone treatments that are currently known to be available in the market, and
- c) ways to describe treatments to customers at the point of sale, as well as in advertisement and in displays.

| (a) CODES | (b) TYPE OF TREATMENT                                                                                                                                                                                                                                              | (c) METHOD TO DESCRIBE TREATMENTS |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| N         | may only be used for gemstones that currently have no known treatment.                                                                                                                                                                                             | Natural                           |
| W         | Surface waxing - Gemstones treated (5.92) on the surface or just below the surface with a colourless agent such as wax (5.98) and/or oil (5.66) that acts or serves the same purpose as wax.                                                                       | Waxed                             |
| O         | Fissure filling with oil - Gemstones that have fissures (5.33) or very narrow openings filled (5.32) with colourless to near-colourless agents such as oil (5.66).                                                                                                 | Fissure filled with oil           |
| RES       | Fissure filling with resin or other polymers - Gemstones that have fissures (5.33) or very narrow openings filled (5.32) with colourless to near-colourless agents such as resin (5.81), polymer (5.75) or any similar substances, other than glass (5.45).        | Fissure filled with resin         |
| F         | Filling of fissures, fractures and/or cavities with glass and other solidified substances - Gemstones treated by the filling (5.38) of open fissures (5.33), fractures (5.37) and or cavities (5.14) with substances such as glass, plastic or similar substances. | Fracture filled or glass filled   |
| H         | Heating - Gemstones treated by a thermal process in a furnace, kiln or other heating apparatus.                                                                                                                                                                    | Heated                            |
| HP        | Heating with pressure - Gemstones treated by the use of heat with pressure (5.48) to effect desired colour and or clarity alteration or modification.                                                                                                              | Heated with pressure              |
| FAH       | Flux assisted healing 5.35- Any corundum that shows indications of having undergone heat treatment, and a degree of healing along previous fractures (5.37), that contain residues such as glass from the heating process.                                         | Heated in flux                    |
| B         | Bleaching - Gemstones treated by bleaching (5.10) to remove or alter a colour by means of chemical or physical agents or light.                                                                                                                                    | Bleached                          |
| R         | Artificial irradiation - Gemstones (5.42) treated to change their colour by artificial irradiation (5.4.)                                                                                                                                                          | Artificially irradiated           |
| U         | Diffusion treatment - Gemstones (5.42) with a colour treated and/or an optical phenomenon created, by diffusion (5.27) of chemical elements from an external source, with the exception of hydrogen and oxygen.                                                    | Diffusion treated                 |
| D         | Dyeing - Gemstones (5.42) with a colour altered by dyes (5.30) or other colouring agents or stones darkened by the "sugar/acid" process.                                                                                                                           | Dyed                              |
| I         | Impregnating - Gemstones treated by impregnation (5.50) with plastics / polymers or similar substances. This clause does not include the bonding (5.11) of powdered materials, which are artificial products (5.3).                                                | Impregnated                       |
| C         | Coating - Gemstones treated by coating (5.17) with a layer of a substance spread over the surface, or part of the surface, such as lacquering, enamelling, inking or foiling (5.36) for protection, colouration                                                    | Coated                            |

## **4.3. Artificial products clauses**

### **4.3.1. General clauses**

Any artificial product 3.2 may in certain situations comply with the classification and definition of an imitation (5.49). When this occurs, the product may be described in accordance with clause 4.3.

#### **4.3.1.1. Display**

When artificial products or merchandise containing artificial products are displayed (whether alone or mixed with natural materials, in a single piece of merchandise or otherwise), easily noticeable and legible labels, adjoining these loose stones or pieces of merchandise, shall clearly indicate the precise nature of the objects being shown in accordance with the clauses herein.

#### **4.3.1.2. Names of geographical areas**

Names of geographical areas producing gemstones and names of cutting or exporting centres shall not be used when referring to artificial products.

#### **4.3.1.3. The terms “real”, “precious”, “genuine”, “natural”, “cultured”**

Do not use the adjectives “real” (5.78), “precious” (5.76), “genuine” (5.44), “natural” (5.63), “cultured” (5.25) or any word or phrase of a similar meaning including “precious stone”, “gemstone” or “ornamental stone” in descriptions of artificial products.

#### **4.3.1.4. Names of natural materials**

Do not use the name of any natural material in direct conjunction with the name of an artificial product (for description of colour or otherwise) in such a fashion, that the identity of the stone is not apparent.

Examples:            (correct)        - « aquamarine-coloured synthetic spinel »  
                          (not correct)    - « emerald glass »

### **4.3.2. Artificial products - composite stones clauses**

#### **4.3.2.1. Description and display**

Composite stones shall (except as in clause 4.3) be described by the words “doublet” (4.3.2.1.1) or “triplet” (4.3.2.1.2) or “composite” (4.3.2.1.3) and these words shall be immediately preceded or followed by the correct names of the components of the assembled product. However, if all parts of a composite (excluding the bonding agent) are the same material, the name of this material shall be stated only once. The words “doublet” (5.29) or “triplet” (5.94) or “composite” (5.21) shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the names of the components. Do not abbreviate. Do not place an asterisk next to any name or combination of names, making reference to a footnote explanation of the fact that the product is a composite stone.

Examples: A doublet whose upper portion is a garnet and whose lower portion is glass

shall be called a « garnet/glass doublet» or “doublet garnet/glass”.

An artificially produced composite stone composed of two parts of colourless synthetic spinel bonded together (by a coloured layer or otherwise) shall be called a “synthetic spinel doublet” or “doublet synthetic spinel”.

#### **4.3.2.1.1. Opal doublet**

A composition of two pieces where a slice of natural opal is bonded to a base material shall be called an “opal doublet” or “doublet opal”.

#### **4.3.2.1.2. Opal triplet**

A composition of three pieces where a thin slice of natural opal is bonded to a dark base and provided with a transparent top layer, usually domed and usually consisting of quartz or glass, shall be called an “opal triplet” or “triplet opal”.

#### **4.3.2.1.3. Opal mosaic**

The word “composite” shall be replaced by the word “mosaic”, when the various parts of the composite are placed side by side (to create a picture or pattern or otherwise) providing that the application of this term adheres to the requirements regarding the term “composite” in clause 5.21

#### **4.3.2.2. Terms other than specified in clause 4.3.2.1**

Do not refer to any composite stone in any way other than that specified in clause 4.3.2.1 (except as in clause 4.3).

### **4.3.3. Artificial products - synthetic stone clauses**

#### **4.3.3.1. Description and display**

A synthetic stone (5.90) shall be described (except as in clause 4.3.1) by the correct name of its naturally occurring counterpart immediately preceded by the word “synthetic” which shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself. Do not abbreviate. Do not place an asterisk next to the name of a gemstone, making reference to a footnote explanation of the fact that the product is synthetic.

Example: « synthetic emerald ».

#### **4.3.3.2. Terms other than “synthetic”**

Do not use a qualifying term other than “synthetic”, to describe any synthetic stone.

NOTE - In previous publications of the CIBJO Gemstone Book the term synthetic could be replaced with the terms laboratory grown or laboratory created, which is no longer the case (2026).

#### **4.3.3.3. Brand or manufacturer’s name**

When using a brand name or the manufacturer's name these shall be added to the name of the stone (5.88) in one of the following manners:

Examples: « synthetic emerald by (name) », « (name) synthetic emerald ».

#### **4.3.4. Artificially crystallised products with no natural counterparts - artificial stones clauses.**

##### **4.3.4.1. Description and display**

The name of an artificially crystallised product with no known natural counterpart (3.2.3) shall be used in conjunction with the term “artificial product” (5.3) or “artificial stone” (5.5) (except as in clause 4.3.1) which must appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself. Do not abbreviate. Do not place an asterisk next to the name of an artificial stone, making reference to a footnote explanation of the fact that the product is artificial.

##### **4.3.4.1.1. Name similarities**

The name of an artificial stone shall not show a similarity to the name, or sound of the name (neither entirely, nor abbreviated, nor by way of an allusion), of any natural material nor be an established name for another artificial stone.

Correct examples:

for artificial yttrium aluminate, (YAG - artificial product), or (YAG - artificial stone)

for artificial lithium niobate, (Linobate - artificial product) or (Linobate - artificial stone).

Incorrect examples:

do not use “Diamantine”, “Diamlite”, “Diamonair”, “Smayyll”, “Emeraldolite”.

##### **4.3.4.1.2. Terms other than “artificial product”, “artificial stone” or “imitation”.**

Do not use a qualifying term other than “artificial product” (5.3) or “imitation” (5.49) to describe such products except as allowed for in clause 4.3.

#### **4.3.5. Artificial uncrystallised products clauses**

##### **4.3.5.1. Descriptions and display**

An artificial uncrystallised product (3.2.4) shall be described by the correct name of the material of which it is composed, in accordance with the clauses and annexes herein, or it shall be described by the name of the natural material it imitates, immediately preceded by the word “imitation”, which shall appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself: Do not abbreviate. Do not place an asterisk next to the name of a gemstone or an organic material, making reference to a footnote explanation of the fact that the product is an imitation.

Correct examples: “glass”, “plastic”, “ceramic”, or “imitation emerald”, “imitation coral” “pressed amber” (see pressed materials clause 5.77.)

#### **4.3.5.2. Terms other than those specified in clause 4.3.5.1**

Do not use a qualifying term other than “artificial product” (5.3) or “imitation” (5.49) to describe such products except as allowed in clause 4.3.5.1

Correct examples “imitation amber”, “imitation turquoise”.

Do not refer to any imitation in any way other than that allowed for in clause 4.3.5.1

## **5. Terms and Definitions**

For the purposes of this CIBJO Standard, the following terms and definitions shall apply.

### **5.1. Adularescence**

an optical phenomenon a gem material exhibits when it displays a floating, billowy, white or bluish light effect in certain directions as the gemstone is turned due to diffused reflection of the light at fine parallel layers inside the stone.

### **5.2. Advertisement**

the activity of attracting public attention to a product or business, as by announcements in the print, broadcast, or electronic media.

### **5.3. Artificial products**

products which are partially or completely made by man.

### **5.4. Artificially Irradiated / artificial Irradiation**

exposing gemstones, diamonds, pearls, cultured pearls and artificial products to any form of radiation which is controlled wholly or partially by man, usually to alter their appearance. See clause 4.2.5.2.

### **5.5. Artificial stones**

artificial products, used in jewellery or objets d’art, that do not have any natural counterparts.

### **5.6. Assembled stones**

see composite stones (5.21).

### **5.7. Asterism**

stones cut as cabochons (5.12) that show two or more distinct and shimmering lines that intersect each other, while crossing the surface of the cabochon and are related to reflection effects from inclusions within the stone, are known as star stones. They exhibit asterism

and are asteriated (as·te·ri·at·ed adjective).

### **5.8. Aventurescence**

an optical phenomenon a gem material exhibits when it displays bright or strongly coloured reflections of tiny platelets or flakes as the gemstone is turned.

### **5.9. Biogenic gem materials**

gem materials (5.41), resulting from the activity of living organisms usually used in jewellery or objets d'art (5.65) due to a combination of properties that provide them with beauty, rarity and relative durability.

### **5.10. Bleaching**

to remove or alter a colour by means of chemical or physical agents or light. See clause 4.2.5.2.

### **5.11. Bonding**

the cohesion of two or more parts or layers. See composite stones clause 5.21.

### **5.12. Cabochon**

A cabochon is a stone that has been shaped and polished into a smooth, convex (domed) top with a flat or slightly curved, polished underside, rather than being faceted. Originating from the French word *caboche* ("head"), this ancient, non-faceted style was typically used for opaque or translucent stones to highlight colour, patterns, or special optical effects like asterism (star-stones) and chatoyancy (cat's-eye).

### **5.13. Carat (ct)**

the unit of weight (5.100) of a diamond, gemstones, synthetic stones, cultured pearl, one carat being equivalent to 200 milligram (1/5 gram).

### **5.14. Cavity**

a hollow or pitted area (a hole) within a stone reaching the surface. Also see: fissure (5.33), fracture (5.37) and fracture filling (5.38).

### **5.15. Chatoyancy**

stones cut as cabochons (5.12) that show a single distinct and shimmering line crossing the surface of the cabochon related to reflection effects from inclusions within the stone, are known as cat's-eyes. They exhibit chatoyancy and are chatoyant (cha·toy·ant adjective).

### **5.16. Chromophore**

the part of a molecule or chemical group which is responsible for its colour.

### **5.17. Coating**

a layer of a substance spread over the surface, or part of the surface, of a stone for protection, colouration, decoration or deception; a covering layer. See clause 4.2.5.2.

### **5.18. Colour change**

the property of gem materials that change from one apparent colour to another apparent colour when moving between different sources of light such as daylight equivalent (CIE standard Illuminant D65) and incandescent equivalent light (CIE standard Illuminant A).

### **5.19. Commercial document**

any writing or electronic transmission that evidences, anticipates or concludes a commercial transaction, including any agreement, memorandum of agreement, purchase order, blanket purchase order, identification reports, blanket purchase agreement, purchase order acknowledgment, request for proposal, quote, offer, warranty, representation certification, guaranty, import documentation, packing list, bill of sale, memorandum of consignment or receipt and advertisements. Commercial documents include mandatory information of the seller, and when necessary the buyer.

### **5.20. Commercial name**

a name assigned for marketing purposes. See clause 4.2.4.4, 4.2.4 and clause 7 Annex B.

### **5.21. Composite stones**

artificial products (5.3) composed of two or more previously separate parts or layers assembled by bonding (5.10) or other artificial methods. Their components may be natural and/or artificial.

### **5.22. Coral**

See the CIBJO Coral Guide

### **5.23. Crystal**

a crystalline solid that consists of orderly arranged atoms, ions and/or molecules, bounded by natural plane surfaces with characteristic, specific orientations. Also see lead glass clause 5.56.

### **5.24. Crystalline / crystallised**

having crystal structure. A solid material consisting of orderly arranged atoms, ions, forming a crystal lattice.

### **5.25. Cultured**

the term “cultured” is only applied to “cultured pearls” and no other material. The secretion of layers is caused by the metabolism of living molluscs. Cultured pearls are formations secreted in the interior of the productive molluscs.

NOTE – See the CIBJO Pearl Book for additional information.

## **5.26. Cutting**

Lapidary practices (5.64) used to fashion a gemstone and artificial products.

## **5.27. Diffusion**

the diffusion of colour-causing or phenomenon-causing elements into a stone. See clause 4.2.5.2.

## **5.28. Disclosure**

the act of providing all material information (5.57) to fully inform a purchaser prior to or during a final sale.

## **5.29. Doublet**

a composite stone consisting of two parts.

## **5.30. Dyeing**

application of a dye or stain to natural materials (5.63) or artificial products (5.3) to alter their colour. See clause 4.2.5.2

## **5.31. Fei Cui (翡翠)**

an historic Chinese name (pronounced fay choy) for a structurally tough ornamental aggregate composed solely or principally of any of the following or any combination of the following jadeite jade, omphacite, and kosmochlor, forming jadeite jade/Jadeite fei cui, omphacite jade/omphacite fei cui or kosmochlor jade/kosmochlor fei cui, and potentially a small amount of other minerals.

See the CIBJO Jade Guide

NOTE - It should be noted while some gemmological laboratories give results that indicate jadeite jade/Jadeite fei cui, “omphacite jade/omphacite fei cui” and/or “kosmochlor jade/kosmochlor fei cui” there are some cases, either through preference or challenges in reaching such a conclusion, where laboratories opt for using “fei cui” as a all-encompassing test result.

## **5.32. Filling**

to introduce a substance that occupies a whole or part of a void. See clause 4.2.5.2.

## **5.33. Fissure**

a very narrow opening; a fine fracture.

## **5.34. Fluid**

a substance of low enough viscosity that it will flow easily.

### **5.35. Flux assisted healing**

a flux assisted heat treatment of corundum enabling the healing of fissures via a process of dissolution at high temperatures, and deposition upon cooling including synthetic growth. As fissures are sealed, silica glass becomes trapped within the previous fissures and this glass is often referred to as residues. See “flux assisted healing” within the chart of clause 4.2.5.2

### **5.36. Foiling**

the application of a very thin layer of highly reflective metal applied to all or part of the pavilion side or at the back of a stone with the intent of reflecting light back to the viewer’s eye. This reflective surface can be “mirror like” and possibly coloured.

### **5.37. Fracture**

an opening larger than a fissure (5.33), a crack.

### **5.38. Fracture filling**

to occupy the whole or part of a fracture with a substance, including but not limited to, glass, resins, or oils, to pervade; to spread throughout; to occupy completely; or to make full, with the purpose of making the fracture less visible. See clause 4.2.5.2

### **5.39. Frequency of occurrence**

the rate of occurrence (according to current knowledge) for a treatment being applied to gemstones.

### **5.40. Gem**

another term, often used as an adjective, to describe an exceptional gemstone noting perfection or very high quality. See gemstone clause 5.42.

NOTE - only the term “Gem” shall be qualified with the terms “real”, “precious”, “genuine” and “natural”.

### **5.41. Gem materials**

a term used to describe natural materials (5.63) that are used in jewellery and objets d’art (5.65) due to a combination of properties that provide them with beauty, rarity and relative durability.

NOTE – the term “gem” used alone often applies to describe an especially fine gemstone, e.g. “this sapphire is a gem”, “the emerald is of gem quality”. Also see Clause 5.40.

### **5.42. Gemstone**

natural inorganic (5.52), organic (5.70) and biogenic (5.9) materials which have been formed completely by nature without human interference. Gemstones are usually used in jewellery or objets d’art due to a combination of properties that provide them with beauty, rarity and relative durability.

Note - For the purpose of this standard all clauses and examples referring to gemstones may also apply to precious

stones and ornamental stones.

Note – The durability of gemstones may vary based on their hardness, toughness and stability.

Note – Examples of various gemstone types, species and varieties, including naturally formed mineral assemblage/combinations, are listed in clause 3.1.1.

### **5.43. Gemstone variety**

a material that fulfills the definition of a gemstone. A gemstone variety is defined by one or more of the following features: (a) particular colour or colour range; (b) particular colour pattern or texture (may include intergrowth textures); (c) Colour-change; (d) Optical effect (chatoyancy, asterism); (e) presence of particular chromophore; (f) presence of particular colour centre(s); (g) a particular crystallinity (coarsely crystalline, micro- or crypto-crystalline, metamict); (h) different degrees of porosity (e.g., agate); (i) a particular inclusion content (e.g., rutiled quartz).

### **5.44. Genuine**

actually possessing the alleged or apparent attribute or character. See clause 4.2.2

### **5.45. Glass**

an amorphous substance, natural or artificial, solidified from a molten state, ordinarily consisting of a mixture of oxides (e.g. silicium, sodium, calcium, aluminium and lead oxides).

### **5.46. Glass ceramics**

See vitroceramics (5.96)

### **5.47. Heating**

modifying a stone by a thermal process, in a furnace, kiln or other heating apparatus to change its colour and or clarity. See clause 4.2.5.2

### **5.48. Heat with pressure (HP)**

a method to alter the appearance of a gemstone with a treatment that involves heat with pressure, see clause 4.2.5.2

### **5.49. Imitations**

artificial products (5.3) that imitate the appearance of natural materials without having their chemical composition or their physical properties or their structure.

### **5.50. Impregnation**

to fill throughout; saturate.

### **5.51. Impregnated**

see Impregnation.

### **5.52. Inorganic gem materials**

not consisting of or deriving from living matter.

### **5.53. Jade**

See the CIBJO Jade Guide

### **5.54. Jewellery**

personal, decorative, and often sentimental objects worn on clothes and/or the body, such as, but not limited to, rings, bracelets, and necklaces.

### **5.55. Labradorescence**

an optical phenomenon which produces flashes of pure spectral colours that gradually changes as the gemstone is moved about in reflected light, caused by thin film interference of light at alternating layers of exsolution lamellae of regular size.

### **5.56. Lead glass**

artificially produced glass (5.45) with distinct high content of lead oxide.

Note – Lead glass (5.56) is often referred to as “crystal glass” or “lead crystal glass. Also see crystal clause 5.23.

### **5.57. Material information**

any information that, if disclosed (5.28) prior to and or during the time of sale, would alter the value, saleability or desirability of materials listed in clause 3, including any care, cleaning and or maintenance requirements.

### **5.58. Mineral**

an element or chemical compound that is normally crystalline and that has been formed as a result of geological processes (Nickel 1995b).

### **5.59. Mineral supergroup**

a mineral supergroup consists of two or more mineral groups which have essentially the same structure and are composed of chemically similar elements (Mills 2009).

### **5.60. Mineral group**

a mineral group consists of two or more minerals with the same or essentially the same structure, and composed of chemically similar elements (Mills 2009).

### **5.61. Mineral species**

a mineral approved by IMA (international Mineralogical Association).

#### **5.62. Mosaic or intarsia**

mosaic is a composition of small pieces of gemstones cemented to or embedded in a base material or a resin. Intarsia is a mosaic of gemstones set flush to one another.

#### **5.63. Natural materials**

materials that are completely formed by nature, without human intervention during its formation, that may subsequently be modified by normal lapidary practices (5.64), or which are altered by a treatment, see clause 4.2.5.2

#### **5.64. Normal lapidary practices**

methods used to fashion gemstones and artificial products which include cutting (5.26), sawing, grinding, faceting, polishing (5.74), carving, engraving and drilling.

#### **5.65. Objets d'art**

an object considered to be of artistic worth.

#### **5.66. Oil**

an agent such as natural or synthetic oil which are used for fissure filling, see clause 4.2.5.2

#### **5.67. Opal**

See the CIBJO Opal Guide

#### **5.68. Opalescence**

the milky or pearly appearance of some gemstones, especially in some common opals.

#### **5.69. Organic gem materials**

gem materials (5.41), relating to or derived from living matter, usually used in jewellery or objets d'art (5.65) due to a combination of properties that provide them with beauty, rarity and relative durability.

#### **5.70. Organic substances**

natural products of animal or plant origin.

NOTE - When used in jewellery or objets d'art (5.65) organic substances are considered to be gemstones.

#### **5.71. Ornamental stones**

gemstones that are used in jewellery and objets d'art (5.65).

## **5.72. Permeate**

the filling of pores, fissures and/or fractures with oil, wax, resin (5.81), or various polymers to diminish their appearance.

## **5.73. Play of colour**

the phenomenon whereby opal and certain other stones may display multiple spectral colours. In opal It is caused by the diffraction of white light and when noted the presence of play of colour identifies the opal as Precious opal (see the CIBJO Opal Guide). Otherwise an optical phenomenon consisting of a variety of prismatic colours, seen in a rapid succession as a cabochon cut gemstone is moved about. Labradorite feldspar characterized by the phenomenon known as "labradorescence, " a play of colour that is caused by the thin-film interference of light. Similarly ammolite a rare, iridescent, gemstone formed from the fossilized shells of extinct marine animals called ammonites has an irridencent play of colour that comes from the interference with the light that rebounds from thin platelets. The thicker the platelet layers, the more reds and greens are produced; the thinner the layers, the more blues and violets predominate.

## **5.74. Polishing**

a method to obtain a polish on gemstones and artificial stones, usually produced by friction or abrasion.

## **5.75. Polymer**

a large organic molecule made up of chains or rings of linked repeating subunits, which are called monomers. A polymer is formed by polymerization, the joining of many monomers. Because the molecules consist of many monomers, polymers tend to have high molecular masses. (Resin is a polymer, but it's a more specific term, describing a particular subset of polymers, see clause 5.81).

## **5.76. Precious stones**

see gemstones.

## **5.77. Pressed materials**

artificial products (5.3) manufactured by fusing or bonding ground pieces of natural stones to form a coherent whole.

## **5.78. Real**

genuine (5.44); not artificial (5.3 and 5.5). See clause 4.2.2.

## **5.79. Reconstructed stones**

a previously used misleading term that should not be used. See pressed materials (5.77).

## **5.80. Residue**

See 5.35

### **5.81. Resin**

a viscous transparent to opaque organic substance such as Canada balsam. A collective term for natural plant exudates, hardened polymers and unhardened prepolymers.?

### **5.82. Rock**

a natural solid aggregate of minerals.

### **5.83. Semi-precious**

a misleading term that should not be used.

### **5.84. Shape**

outline of a fashioned gemstone when viewed from above.

### **5.85. Simulant**

see imitations (5.49).

### **5.86. Special care**

additional care needed to preserve the appearance of natural materials (5.63), any treated materials or artificial products (5.3).

### **5.87. Stability**

a measure of the ability of gemstones and organic substances to maintain their appearance under normal wear and care.

### **5.88. Stones**

natural materials and artificial products used in jewellery or objets d'art (5.65), with the exception of metals.

### **5.89. Sugar/acid treatment**

Matrix opals treated in a solution of acidified glucose-lactose with a few drops of concentrated sulfuric acid, then heated until the sugar solution solidifies. The gemstone is then immersed in sulfuric acid and heated to reduce the sugar to black carbon. See "dyeing" within the chart of clause 4.2.5.2

### **5.90. Synthetic stones**

artificial products having essentially the same chemical composition, physical properties and structure as that of their naturally occurring counterparts.

### **5.91. Trade Codes**

codes used within the trade, consisting of one or more letters, to designate the treatment of gemstones and organic substances, and/or to explain special care. See clause 8 Annex C.

### **5.92. Treated gemstones**

Gemstones (3.1.1) that have been treated (3.1.2) by ways other than normal lapidary practices (5.64) to change their appearance and or durability.

### **5.93. Treatment**

a practice that artificially alters, modifies or changes the appearance and/or the durability of a gemstone or gem material by applying heating, diffusion, irradiation, filling, coating or any artificial processes other than normal lapidary practices.

### **5.94. Triplet**

a composite stone (5.21) consisting of three parts.

### **5.95. Unknown**

a term used to indicate that a person is unaware if a gemstone has undergone a treatment

### **5.96. Vitroceramic imitations of gems**

imitations of gems created through controlled partial crystallization of glass, resulting in materials with superior hardness, thermal stability, and colour consistency compared to traditional glass or plastic simulants.

### **5.97. Void**

a cavity (5.14) that contains no matter.

### **5.98. Wax**

Wax is of two general types: (i) paraffin wax in petroleum distillates and (ii) microcrystalline wax in petroleum residua. Paraffin wax is a solid/rigid crystalline mixture of straightchain (normal) hydrocarbons ranging from 20 to 30 carbon atoms per molecule, and even higher. It is distinguished by its solid state at ordinary temperatures (25°C) and low viscosity (at 99°C) when melted.

### **5.99. Waxing**

the application of a colourless wax or similar products to, or near, the surface of gemstones and organic substances, see clause 4.2.5.2.

### **5.100.Weight**

mass of a gemstone (5.42) or an artificial product (5.3).

NOTE - The SI (Système International) generally uses the term mass instead of weight. Mass is a measure of an object's inertial property, or the amount of matter it contains. Weight is a measure of the force exerted on an object by gravity or the force needed to support it.

## **6. Annex A - Care requirements (Also see clause 8 Annex C)**

### **6.1. Normal care**

With all gemstones avoid rough handling and when not in wear, keep items of jewellery separate to avoid scratches. Clean with warm soapy water and gentle brushing. Ultrasonic cleaners should only be used with caution.

### **6.2. Special Care**

In addition to normal care, some gemstones have special care requirements

- a. Some stones are prone to scratching due to low hardness. Wear them with care.
- b. Some stones cleave or fracture easily or are prone to the effects of brittleness e.g. rubbed facet edges. Wear them with care.
- c. Some stones are porous. Do not allow contact with fluids.
- d. Some stones are prone to crack due to loss of structural water. Keep away from heat and drying environments.
- e. Some stones are prone to damage due to thermal shock. Do not expose them to extreme temperature changes.
- f. Some stones fade or revert to original colour when exposed to strong light. Do not wear or leave them for extended periods under these conditions.
- g. Some stones fade rapidly unless kept in the dark.
- h. Some stones are particularly susceptible to attack by acids. Keep them away from acids.
- i. Some organic substances dissolve upon contact with solvents such as nail varnish remover. Keep them away from all solvents and other strong chemicals.
- j. Some stones are susceptible to damage from ultrasonic cleaning. Do not expose them to ultrasonic cleaning.
- k. Stones treated with dye, oil, resin, wax, or plastic are not permanent. Keep away from all solvents (including various dish-washing liquids), chemicals and heat.
- l. Fillers in voids/cavities, fissures, and/or open fractures, such as glass, plastic or hardened resin, can scratch more easily than the host stone or be more vulnerable to damage from heat or some acids (e.g. hydrofluoric). Keep away

from all chemicals, heat or abrasives.

- m. Stones with superficial colour and surface layers are not suitable for re-cutting or re- polishing. This is especially true for some diffusion treated stones.
- n. Coatings on stones are often easily removed by the action of solvents, heat or abrasives. Keep away from all solvents, heat or abrasives. Coated stones are not suitable for re-cutting or re-polishing.

## 7. Annex B (normative) Trade codes for Gemstones

Trade codes for gemstones shall only be used within the industry on commercial documents and jewellery tags as a method to identify treatments, and to assist a salesperson to inform customers of a treatment or to indicate that a stone is not treated. Methods of gemstone treatment disclosure shall be made in accordance with Clause 4.2.5.2. Trade codes may also be used on jewelry tags to indicate care requirement.

### 7.1. **N** Not treated

The N code may only be used for gemstones that currently have no known treatment.

### 7.2. Trade codes for treated gemstones (also see clause 4.2.5.2.)

|            |                                               |
|------------|-----------------------------------------------|
| <b>B</b>   | Bleaching                                     |
| <b>C</b>   | Coating                                       |
| <b>D</b>   | Dyeing                                        |
| <b>F</b>   | Filling                                       |
| <b>FAH</b> | Flux assisted healing                         |
| <b>H</b>   | Heating                                       |
| <b>HP</b>  | Heating with pressure                         |
| <b>I</b>   | Impregnating                                  |
| <b>O</b>   | Fissure filling with oil                      |
| <b>R</b>   | Artificial irradiation                        |
| <b>RES</b> | Fissure Filling with resins or other polymers |
| <b>U</b>   | Diffusion treatment                           |

**W** Surface waxing

### **7.3. Trade codes for care requirement**

#### **7.3.1. Code for gemstones and treated gemstones that require normal care.**

**NC** Normal care – see clause 6.1 Annex A

#### **7.3.2. Code for gemstones and treated gemstones that require special care**

**SC** Special care – see clause 6.2 Annex A

NOTE – For all trade codes also see the charts in clause 8 Annex C.

## **8 Annex C (normative) List of gemstones**

### **Material, variety, commercial name, treatments and references.**

The footnotes below apply to the following pages in clause 8 Annex C:

- 1) Frequency column – the frequency (5.39) for “no treatment”, “unknown”, “rarely”, “occasionally”, “commonly” “almost always” or “always” used is based on the judgement of several gemmological laboratories, these may change from time to time.
- 2) Trade code column – trade codes (5.91) shall only be used by the industry, (see clause 7 Annex B).
- 3) Stability column – the stability (5.87) of treatments include “stable”, “unstable” and “variable”.
- 4) Care and advice column - refer to clause 6 Annex A.
- 5) Available as synthetic column – makes reference to gemstones that are available as synthetics.
- 6) Reference column - the references column used is the most appropriate hyperlinked electronic reference available at the time of publication.

The Gemstone Blue Book

| Nomenclature         |                                                                                             |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                    |
|----------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------|
| Material / Species   | Variety / type                                                                              | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                           |
| Actinolite           |                                                                                             | Actinolite                                                              | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1<br>6.2.a & i                         | No                          | <a href="https://www.mindat.org/min-18.html">https://www.mindat.org/min-18.html</a>       |
|                      |                                                                                             | Actinolite                                                              | Dyed (rarely)                                                                                   | D/SC                       | Unstable,                                      | 6.1.<br>6.2.a, i & j                     | No                          | <a href="https://www.mindat.org/min-18.html">https://www.mindat.org/min-18.html</a>       |
| Actinolite-tremolite | Nephrite                                                                                    | Nephrite, or Nephrite-<br>jade                                          | No treatment (Commonly)                                                                         | N                          | N/A                                            | 6.1.<br>6.2.i                            | No                          | <a href="https://www.mindat.org/min-2881.html">https://www.mindat.org/min-2881.html</a>   |
|                      | Nephrite                                                                                    | Nephrite, or Nephrite-<br>jade                                          | Dyed (rarely)                                                                                   | D/SC                       | Unstable                                       | 6.1.<br>6.2.i & j                        | No                          | <a href="https://www.mindat.org/min-2881.html">https://www.mindat.org/min-2881.html</a>   |
|                      | Nephrite                                                                                    | Nephrite, or Nephrite-<br>jade                                          | Surface treated with wax<br>(commonly)                                                          | W/SC                       | Unstable                                       | 6.1.<br>6.2.i & j                        | No                          | <a href="https://www.mindat.org/min-2881.html">https://www.mindat.org/min-2881.html</a>   |
|                      | Nephrite Cat's eye                                                                          | Nephrite Cat's eye                                                      | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-2881.html">https://www.mindat.org/min-2881.html</a>   |
| Tremolite            |                                                                                             | Tremolite                                                               | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4011.html">https://www.mindat.org/min-4011.html</a>   |
|                      | (with red to violet<br>colour due to<br>manganese)(with<br>green colour due to<br>chromium) | Hexagonite                                                              | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2 a & i                        | No                          | <a href="https://www.mindat.org/min-11106.html">https://www.mindat.org/min-11106.html</a> |
|                      | (with green colour due<br>to chromium)                                                      | Chrome tremolite                                                        | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a & i                        | No                          | <a href="https://www.mindat.org/min-4011.html">https://www.mindat.org/min-4011.html</a>   |
| Albite               |                                                                                             | See Feldspar                                                            | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-96.html">https://www.mindat.org/min-96.html</a>       |
| Almandine            |                                                                                             | See Garnet                                                              | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-452.html">https://www.mindat.org/min-452.html</a>     |

The Gemstone Blue Book

| Nomenclature       |                                      |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                            |
|--------------------|--------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                       | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                   |
| Amber              |                                      | Amber                                                                   | No treatment (Rarely)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, i, j & m               | No                          | <a href="https://www.mindat.org/min-188.html">https://www.mindat.org/min-188.html</a>             |
|                    |                                      | Amber                                                                   | Heated (commonly)                                                                               | H/SC                       | Stable but may<br>become darker with<br>age    | 6.1.<br>6.2.a, b, i, j & m               | No                          | <a href="https://www.mindat.org/min-188.html">https://www.mindat.org/min-188.html</a>             |
|                    |                                      | Amber                                                                   | Dyed or surface treated to<br>add colour (rarely)                                               | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, i, j & m               | No                          | <a href="https://www.mindat.org/min-188.html">https://www.mindat.org/min-188.html</a>             |
| Amblygonite        |                                      | Amblygonite                                                             | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.e & j                        | No                          | <a href="https://www.mindat.org/min-189.html">https://www.mindat.org/min-189.html</a>             |
| Montebrasite       |                                      | Montebrasite (Yellow)                                                   | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1. 6.2.e & j                           | No                          | <a href="https://www.mindat.org/min-2763.html">https://www.mindat.org/min-2763.html</a>           |
|                    |                                      | Montebrasite                                                            | Green produced by<br>irradiation (usually)                                                      | R/SC                       | Presently unknown                              | 6.1.<br>6.2.e & j                        | No                          | <a href="https://www.mindat.org/min-2763.html">https://www.mindat.org/min-2763.html</a>           |
| Ammonite           |                                      | Ammonite                                                                | No treatment<br>(commonly)                                                                      | N                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/taxon-7649433.html">https://www.mindat.org/taxon-7649433.html</a> |
|                    | Ammonite Shell (with<br>iridescence) | Ammolite                                                                | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.a, b, h, & j                 | No                          | <a href="https://www.mindat.org/min-8393.html">https://www.mindat.org/min-8393.html</a>           |
|                    | Ammonite Shell (with<br>iridescence) | Ammolite                                                                | Impregnated with near-<br>colourless hardened<br>substances (commonly)                          | I/SC                       | Unstable                                       | 6.1<br>6.2.a, b, h, j k &<br>m           | No                          | <a href="https://www.mindat.org/min-8393.html">https://www.mindat.org/min-8393.html</a>           |
| Anatase            |                                      | Anatase                                                                 | No treatment                                                                                    | N                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-213.html">https://www.mindat.org/min-213.html</a>             |
| Andalusite         |                                      | Andalusite                                                              | No treatment (Almost<br>always)                                                                 | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-217.html">https://www.mindat.org/min-217.html</a>             |
|                    |                                      | Andalusite                                                              | Heated (rarely)                                                                                 | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-217.html">https://www.mindat.org/min-217.html</a>             |
|                    | Chiastolite                          | Chiastolite                                                             | No treatment (Almost<br>always)                                                                 | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1001.html">https://www.mindat.org/min-1001.html</a>           |

The Gemstone Blue Book

| Nomenclature              |                   |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                    |
|---------------------------|-------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------|
| Material / Species        | Variety / type    | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                           |
| Andradite                 |                   | See Garnet                                                              | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-223.html">https://www.mindat.org/min-223.html</a>     |
| Anthophyllite-<br>Gedrite | Nuummite          | Nuummite                                                                | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a                            | No                          | <a href="https://www.mindat.org/min-30937.html">https://www.mindat.org/min-30937.html</a> |
| Antigorite                |                   | See Serpentine                                                          | No treatment (Commonly)                                                                         | N                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-260.html">https://www.mindat.org/min-260.html</a>     |
| Apatite                   |                   | Apatite                                                                 | No treatment (Almost<br>always)                                                                 | N/SC                       | N/A                                            | 6.1.<br>6.2.a & j                        | No                          | <a href="https://www.mindat.org/min-29229.html">https://www.mindat.org/min-29229.html</a> |
|                           |                   | Apatite                                                                 | Heated (Rarely)                                                                                 | H/SC                       | Stable                                         | 6.1.<br>6.2.a & j                        | No                          | <a href="https://www.mindat.org/min-29229.html">https://www.mindat.org/min-29229.html</a> |
| Aragonite                 |                   | Aragonite                                                               | No treatment (Almost<br>always)                                                                 | N/SC                       | N/A                                            | 6.1.<br>6.2.a, h & j                     | No                          | <a href="https://www.mindat.org/min-307.html">https://www.mindat.org/min-307.html</a>     |
|                           | Fibrous aragonite | Aragonite Satin Spar                                                    | No treatment (Almost<br>always)                                                                 | N/SC                       | N/A                                            | 6.1.<br>6.2. a, h & j                    | No                          | <a href="https://www.mindat.org/min-42711.html">https://www.mindat.org/min-42711.html</a> |
| Axinite                   |                   | Axinite                                                                 | No treatment (Almost<br>always)                                                                 | N/SC                       | N/A                                            | 6.1.<br>6.2. b & j                       | No                          | <a href="https://www.mindat.org/min-1459.html">https://www.mindat.org/min-1459.html</a>   |
| Azurite                   |                   | Azurite, or Chessylite                                                  | No treatment (Occasionally)                                                                     | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, h & j                  | No                          | <a href="https://www.mindat.org/min-447.html">https://www.mindat.org/min-447.html</a>     |
|                           |                   | Azurite, or Chessylite                                                  | Surface near-colourless<br>waxing (Commonly)                                                    | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, .2, h, j & k              | No                          | <a href="https://www.mindat.org/min-447.html">https://www.mindat.org/min-447.html</a>     |
|                           |                   | Azurite, or Chessylite                                                  | Impregnated with near-<br>colourless oil, wax or resin<br>(Rarely)                              | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, .2, h, j & k              | No                          | <a href="https://www.mindat.org/min-447.html">https://www.mindat.org/min-447.html</a>     |
| Azurite-Malachite         | Azurite-Malachite | Azurite-Malachite                                                       | No treatment (Occasionally)                                                                     | N/SC                       | N/A                                            | 6.1.<br>6.2.a & h                        | No                          | <a href="https://www.mindat.org/min-448.html">https://www.mindat.org/min-448.html</a>     |
|                           | Azurite-Malachite | Azurite-Malachite                                                       | Surface-waxing<br>(Commonly)                                                                    | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, h, & k                    | No                          | <a href="https://www.mindat.org/min-448.html">https://www.mindat.org/min-448.html</a>     |

The Gemstone Blue Book

| Nomenclature               |                                                           |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6)                      | Available as<br>a synthetic | Informative References                                                                                                                                                                               |
|----------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|---------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species         | Variety / type                                            | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                                               |                             |                                                                                                                                                                                                      |
| Azurite-Malachite<br>cont. | Azurite-Malachite                                         | Azurite-Malachite                                                       | Impregnated with near-<br>colourless plastic or<br>hardened resin (Rarely)                      | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, h, & k                                         | No                          | <a href="https://www.mindat.org/min-448.html">https://www.mindat.org/min-448.html</a>                                                                                                                |
| Benitoite                  |                                                           | Benitoite                                                               | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2..j                                                | No                          | <a href="https://www.mindat.org/min-624.html">https://www.mindat.org/min-624.html</a>                                                                                                                |
| Beryl                      | Emerald (green colour<br>due to chromium +/-<br>vanadium) | Emerald                                                                 | No treatment (Very rarely)                                                                      | N/SC                       | N/A                                            | 6.1. ( If there are<br>fissures or<br>fractures)<br>6.2.b & j | Many                        | <a href="https://www.mindat.org/min-1375.html">https://www.mindat.org/min-1375.html</a>                                                                                                              |
|                            | Emerald (green colour<br>due to chromium +/-<br>vanadium) | Emerald                                                                 | Near-colourless oils and<br>wax in fissures (commonly)                                          | O/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & k                                          | No                          | <a href="https://www.mindat.org/min-1375.html">https://www.mindat.org/min-1375.html</a>                                                                                                              |
|                            | Emerald (green colour<br>due to chromium +/-<br>vanadium) | Emerald                                                                 | Resins or other polymers in<br>fissures (commonly)                                              | RES/SC                     | Unstable                                       | 6.1.<br>6.2.b, j & k                                          | No                          | <a href="https://www.mindat.org/min-1375.html">https://www.mindat.org/min-1375.html</a>                                                                                                              |
|                            | Emerald (green colour<br>due to chromium +/-<br>vanadium) | Emerald                                                                 | Dyed with the use of<br>coloured oils or resins<br>(occasionally)                               | D/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & k                                          | No                          | <a href="https://www.mindat.org/min-1375.html">https://www.mindat.org/min-1375.html</a>                                                                                                              |
|                            | Emerald (green colour<br>due to chromium +/-<br>vanadium) | Emerald                                                                 | Open fractures or cavities<br>filled with hardened resins<br>(commonly)                         | RES/SC                     | Unstable                                       | 6.1.<br>6.2.b, j, k & l                                       | No                          | <a href="https://www.mindat.org/min-1375.html">https://www.mindat.org/min-1375.html</a>                                                                                                              |
|                            | Emerald and resins                                        | Manufactured/Composite<br>material or product                           | Resin filled open fractures<br>and cavities (commonly)                                          | F/SC                       | Unstable                                       | 6.1.<br>6.2.h & l                                             | No                          | <a href="https://www.mindat.org/min-1375.html">https://www.mindat.org/min-1375.html</a><br><a href="https://online.fliphtml5.com/vxvwx/grmq/#p=50">https://online.fliphtml5.com/vxvwx/grmq/#p=50</a> |
|                            | Aquamarine                                                | Aquamarine                                                              | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                                          | Some                        | <a href="https://www.mindat.org/min-289.html">https://www.mindat.org/min-289.html</a>                                                                                                                |
|                            | Aquamarine                                                | Aquamarine                                                              | Heated (almost always)                                                                          | H                          | Stable                                         | 6.1.                                                          | Some                        | <a href="https://www.mindat.org/min-289.html">https://www.mindat.org/min-289.html</a>                                                                                                                |

The Gemstone Blue Book

| Nomenclature       |                               |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                    |
|--------------------|-------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                           |
| Beryl cont.        | Aquamarine                    | Aquamarine                                                              | Near-colourless oils and<br>wax in fissures<br>(occasionally)                                   | O/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-289.html">https://www.mindat.org/min-289.html</a>     |
|                    | Aquamarine                    | Aquamarine                                                              | Resins or other polymers in<br>fissures (commonly)                                              | RES/SC                     | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-289.html">https://www.mindat.org/min-289.html</a>     |
|                    | Goshenite                     | Goshenite, or Colourless<br>Beryl                                       | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-7555.html">https://www.mindat.org/min-7555.html</a>   |
|                    | Heliodor                      | Heliodor, or yellow Beryl,<br>or Golden Beryl                           | No treatment (Occasionally)                                                                     | N                          | N/A                                            | 6.1.                                     | Few                         | <a href="https://www.mindat.org/min-6727.html">https://www.mindat.org/min-6727.html</a>   |
|                    | Heliodor                      | Heliodor, or yellow Beryl,<br>or Golden Beryl                           | Irradiated (usually)                                                                            | R/SC                       | Variable                                       | 6.1.<br>6.2.f                            | Few                         | <a href="https://www.mindat.org/min-6727.html">https://www.mindat.org/min-6727.html</a>   |
|                    | Morganite                     | Morganite, or Pink Beryl                                                | No treatment (occasionally)                                                                     | N                          | N/A                                            | 6.1.                                     | Few                         | <a href="https://www.mindat.org/min-2783.html">https://www.mindat.org/min-2783.html</a>   |
|                    | Morganite                     | Morganite, or Pink Beryl                                                | Heated (commonly)                                                                               | H                          | Stable                                         | 6.1.                                     | Few                         | <a href="https://www.mindat.org/min-2783.html">https://www.mindat.org/min-2783.html</a>   |
|                    | Morganite                     | Morganite, or Pink Beryl                                                | Irradiated (commonly)                                                                           | R/SC                       | Stable                                         | 6.1.                                     | Few                         | <a href="https://www.mindat.org/min-2783.html">https://www.mindat.org/min-2783.html</a>   |
|                    | Blue Beryl (Maxixe)           | Blue Beryl (Maxixe)                                                     | No treatment (very rarely)                                                                      | N/SC                       | Unstable                                       | 6.1.<br>6.2.g                            | No                          | <a href="https://www.mindat.org/min-10019.html">https://www.mindat.org/min-10019.html</a> |
|                    | Blue Beryl (Maxixe-<br>type)  | Blue Beryl (Maxixe-type)                                                | Blue (Maxixe type)<br>irradiated (almost always)                                                | R/SC                       | Unstable                                       | 6.1.<br>6.2.g                            | No                          | <a href="https://www.mindat.org/min-42714.html">https://www.mindat.org/min-42714.html</a> |
|                    | Green Beryl (Maxixe-<br>type) | Green Beryl (Maxixe-type)                                               | Green (Maxixe-type)<br>Irradiated (almost always)                                               | R/SC                       | Unstable                                       | 6.1.<br>6.2.g                            | No                          | <a href="https://www.mindat.org/min-42714.html">https://www.mindat.org/min-42714.html</a> |
|                    | (other colours)               | Beryl with colour prefixes<br>e.g., Green Beryl, Red<br>Beryl etc.      | No treatment (rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | Few                         | <a href="https://www.mindat.org/min-819.html">https://www.mindat.org/min-819.html</a>     |

The Gemstone Blue Book

| Nomenclature       |                 |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                      |
|--------------------|-----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type  | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                             |
| Beryl cont.        | (other colours) | Beryl with colour prefixes<br>e.g. Green Beryl, Red<br>Beryl, etc.      | Near-colourless oils and<br>wax in fissures (commonly)                                          | O/SC                       | Unstable                                       | 6.1.<br>6.2.b & j,k                      | No                          | <a href="https://www.mindat.org/min-819.html">https://www.mindat.org/min-819.html</a>                                                                       |
|                    | (other colours) | Beryl with colour prefixes<br>e.g. Green Beryl, Red<br>Beryl, etc.      | Resins or other polymers in<br>fissures (commonly)                                              | RES/SC                     | Unstable                                       | 6.1.<br>6.2.b & j,k                      | No                          | <a href="https://www.mindat.org/min-819.html">https://www.mindat.org/min-819.html</a>                                                                       |
| Beryllonite        |                 | Beryllonite                                                             | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, & j                       | No                          | <a href="https://www.mindat.org/min-644.html">https://www.mindat.org/min-644.html</a>                                                                       |
| Bone               |                 | Bone                                                                    | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, c, i, j & m               | No                          | <a href="https://www.sciencelearn.org.nz/resources/1796-bone-and-tooth-minerals">https://www.sciencelearn.org.nz/resources/1796-bone-and-tooth-minerals</a> |
|                    |                 | Bone                                                                    | Bleached<br>(commonly)                                                                          | B/SC                       | Stable                                         | 6.1.<br>6.2.a, c, i & j                  | No                          | <a href="https://www.sciencelearn.org.nz/resources/1796-bone-and-tooth-minerals">https://www.sciencelearn.org.nz/resources/1796-bone-and-tooth-minerals</a> |
|                    |                 | Bone                                                                    | Dyed<br>(occasionally)                                                                          | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, f, i, j & k            | No                          | <a href="https://www.sciencelearn.org.nz/resources/1796-bone-and-tooth-minerals">https://www.sciencelearn.org.nz/resources/1796-bone-and-tooth-minerals</a> |
|                    |                 | Bone                                                                    | Near-colourless surface<br>waxing<br>(occasionally)                                             | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, f, i, j & k            | No                          | <a href="https://www.sciencelearn.org.nz/resources/1796-bone-and-tooth-minerals">https://www.sciencelearn.org.nz/resources/1796-bone-and-tooth-minerals</a> |
|                    |                 | Bone                                                                    | Impregnated with near-<br>colourless plastic or<br>hardened resins<br>(commonly)                | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, i, j & k                  | No                          | <a href="https://www.sciencelearn.org.nz/resources/1796-bone-and-tooth-minerals">https://www.sciencelearn.org.nz/resources/1796-bone-and-tooth-minerals</a> |
| Brazilianite       |                 | Brazilianite                                                            | No treatment (always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b, & j                       | No                          | <a href="https://www.mindat.org/min-760.html">https://www.mindat.org/min-760.html</a>                                                                       |
| Calcite            |                 | Calcite                                                                 | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, h & j                  | No                          | <a href="https://www.mindat.org/min-859.html">https://www.mindat.org/min-859.html</a>                                                                       |

The Gemstone Blue Book

| Nomenclature               |                                     |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                    |
|----------------------------|-------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------|
| Material / Species         | Variety / type                      | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                           |
| Calcite cont.              | Fibrous Calcite                     | Calcite Satin Spar                                                      | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, c, h & j               | No                          | <a href="https://www.mindat.org/min-34300.html">https://www.mindat.org/min-34300.html</a> |
|                            | Massive Calcite                     | Marble                                                                  | No treatment (rarely)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a, c, h & j                  | No                          | <a href="https://www.mindat.org/min-9507.html">https://www.mindat.org/min-9507.html</a>   |
|                            | Massive Calcite                     | Marble                                                                  | Surface near-colourless<br>waxing (commonly)                                                    | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, h, j & k               | No                          | <a href="https://www.mindat.org/min-9507.html">https://www.mindat.org/min-9507.html</a>   |
|                            | Massive Calcite                     | Marble                                                                  | Dyed<br>(commonly)                                                                              | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, h, j & k               | No                          | <a href="https://www.mindat.org/min-9507.html">https://www.mindat.org/min-9507.html</a>   |
| Cassiterite                |                                     | Cassiterite                                                             | No treatment (Almost<br>always)                                                                 | N                          | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-917.html">https://www.mindat.org/min-917.html</a>     |
| Cerussite                  |                                     | Cerussite                                                               | No treatment (Almost<br>always)                                                                 | N/SC                       | N/A                                            | 6.1.<br>6.2.a, h & j                     | No                          | <a href="https://www.mindat.org/min-934.html">https://www.mindat.org/min-934.html</a>     |
| Chalcedony                 |                                     | See quartz                                                              | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-960.html">https://www.mindat.org/min-960.html</a>     |
| Charoite                   |                                     | Charoite                                                                | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-972.html">https://www.mindat.org/min-972.html</a>     |
| Charoite cont..            |                                     | Charoite                                                                | Surface near-colourless<br>waxing (unknown)                                                     | W/SC                       | Unstable                                       | 6.1.<br>6.2.c, j & k                     | No                          | <a href="https://www.mindat.org/min-972.html">https://www.mindat.org/min-972.html</a>     |
| Chessylite, see<br>Azurite |                                     |                                                                         | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-4704.html">https://www.mindat.org/min-4704.html</a>   |
| Chondrodite                |                                     |                                                                         | No treatment (Usually)                                                                          | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-1027.html">https://www.mindat.org/min-1027.html</a>   |
| Chrysoberyl                |                                     | Chrysoberyl                                                             | No treatment (Commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | Some                        | <a href="https://www.mindat.org/min-1039.html">https://www.mindat.org/min-1039.html</a>   |
|                            | Chrysoberyl Cat's-eye,<br>Cymophane | Chrysoberyl Cat's-eye, or<br>Cat's-eye                                  | No treatment (Commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | Few                         | <a href="https://www.mindat.org/min-1039.html">https://www.mindat.org/min-1039.html</a>   |

## The Gemstone Blue Book

| Nomenclature        |                                                            |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                        |
|---------------------|------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species  | Variety / type                                             | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                               |
| Chrysoberyl cont.   | Chrysoberyl Cat's-eye,<br>Cymophane                        | Chrysoberyl Cat's-eye, or<br>Cat's-eye                                  | Irradiated to change colour<br>(rarely)                                                         | R                          | Stable                                         | 6.1.some may<br>be radioactive           | Few                         | <a href="https://www.mindat.org/min-1039.html">https://www.mindat.org/min-1039.html</a>                                                                                                                                       |
|                     | Alexandrite (definite<br>colour change due to<br>chromium) | Alexandrite                                                             | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-109.html">https://www.mindat.org/min-109.html</a>                                                                                                                                         |
|                     | Alexandrite (definite<br>colour change due to<br>chromium) | Alexandrite                                                             | Near-colourless oils and<br>wax in fissures (rarely)                                            | RES/SC                     | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-109.html">https://www.mindat.org/min-109.html</a>                                                                                                                                         |
|                     | Alexandrite (definite<br>colour change due to<br>chromium) | Alexandrite                                                             | Resins or other polymers in<br>fissures (rarely)                                                | RES/SC                     | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-109.html">https://www.mindat.org/min-109.html</a>                                                                                                                                         |
|                     | Alexandrite Cat's-eye                                      | Alexandrite Cat's-eye                                                   | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | Some                        | <a href="https://www.mindat.org/min-109.html">https://www.mindat.org/min-109.html</a>                                                                                                                                         |
|                     | Vanadium Chrysoberyl                                       |                                                                         | No treatment (commonly)                                                                         | –                          | –                                              | –                                        | –                           | <a href="https://www.ssef.ch/wp-content/uploads/2018/06/2013-Schmetzer-et-al-natural-synthetic-V-chrysoberyl.pdf">https://www.ssef.ch/wp-content/uploads/2018/06/2013-Schmetzer-et-al-natural-synthetic-V-chrysoberyl.pdf</a> |
| Chrysocolla         |                                                            | Chrysocolla                                                             | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, c, & j                 | No                          | <a href="https://www.mindat.org/min-1040.html">https://www.mindat.org/min-1040.html</a>                                                                                                                                       |
| Chrysocolla cont... |                                                            | Chrysocolla                                                             | Surface near-colourless<br>waxing<br>(occasionally)                                             | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, c, j & k               | No                          | <a href="https://www.mindat.org/min-1040.html">https://www.mindat.org/min-1040.html</a>                                                                                                                                       |
|                     |                                                            | Chrysocolla                                                             | Impregnation with near-<br>colourless plastic or<br>hardened resin<br>(occasionally)            | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, c, j & k               | No                          | <a href="https://www.mindat.org/min-1040.html">https://www.mindat.org/min-1040.html</a>                                                                                                                                       |
| Chrysotile          |                                                            | See Serpentine                                                          | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.gemdat.org/gem-975.html">https://www.gemdat.org/gem-975.html</a>                                                                                                                                         |

## The Gemstone Blue Book

| Nomenclature       |                 |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                 |
|--------------------|-----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type  | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                        |
| Conch Pearl        |                 | See the CIBJO Pearl Book                                                | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Pearl-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Pearl-Book.pdf</a>                                                                                                        |
| Copal              |                 | Copal                                                                   | No treatment (Occasionally)                                                                     | N/SC                       | N/A                                            | 6.1.<br>6.2.a, i, j & m                  | No                          | <a href="https://www.mindat.org/min-26751.html">https://www.mindat.org/min-26751.html</a>                                                                                                                                                                                              |
|                    |                 | Copal                                                                   | Heat (commonly)                                                                                 | H/SC                       | Stable                                         | 6.1.<br>6.2.a, i, j & m                  | No                          | <a href="https://www.mindat.org/min-26751.html">https://www.mindat.org/min-26751.html</a>                                                                                                                                                                                              |
|                    |                 | Copal                                                                   | Dyed or surface treated to<br>add colour (rarely)                                               | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, i, j & m                  | No                          | <a href="https://www.mindat.org/min-26751.html">https://www.mindat.org/min-26751.html</a>                                                                                                                                                                                              |
| Coral              | SEE CORAL GUIDE |                                                                         |                                                                                                 |                            |                                                |                                          |                             |                                                                                                                                                                                                                                                                                        |
| Precious Coral     | White           | White Coral                                                             | No treatment (occasionally)                                                                     | N/SC                       | N/A                                            | 6.1.<br>6.2.a, c, h & j                  | No                          | <a href="https://www.gemdat.org/gem-42717.html">https://www.gemdat.org/gem-42717.html</a><br><a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a> |
|                    | White           | White Coral                                                             | Bleached<br>(commonly)                                                                          | B/SC                       | Stable                                         | 6.1.<br>6.2.a, c, h & j                  | No                          | <a href="https://www.gemdat.org/gem-42717.html">https://www.gemdat.org/gem-42717.html</a><br><a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a> |
|                    | White           | White Coral                                                             | Impregnated with near-<br>colourless plastic or<br>hardened resins<br>(commonly)                | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, h, j & k               | No                          | <a href="https://www.gemdat.org/gem-42717.html">https://www.gemdat.org/gem-42717.html</a><br><a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a> |

The Gemstone Blue Book

| Nomenclature          |                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                 |
|-----------------------|----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species    | Variety / type | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                        |
|                       | Pink           | Pink Coral                                                              | No treatment (Occasionally)                                                                     | N/SC                       | N/A                                            | 6.1.<br>6.2.a, c, h & j                  | No                          | <a href="https://www.gemdat.org/gem-42717.html">https://www.gemdat.org/gem-42717.html</a><br><a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a> |
| Precious Coral cont.. | Pink           | Pink Coral                                                              | Surface near-colourless<br>waxing<br>(commonly)                                                 | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, h, j & k               | No                          | <a href="https://www.gemdat.org/gem-42717.html">https://www.gemdat.org/gem-42717.html</a><br><a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a> |
|                       | Pink           | Pink Coral                                                              | Dyed (commonly)                                                                                 | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, h, j & k               | No                          | <a href="https://www.gemdat.org/gem-42717.html">https://www.gemdat.org/gem-42717.html</a><br><a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a> |
|                       | Pink           | Pink Coral                                                              | Impregnated with near-<br>colourless plastic or<br>hardened resins<br>(commonly)                | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, h, j & k               | No                          | <a href="https://www.gemdat.org/gem-42717.html">https://www.gemdat.org/gem-42717.html</a><br><a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a> |
|                       | Red            | Red Coral                                                               | See pink coral                                                                                  |                            | See pink coral                                 | See pink coral                           | See pink<br>coral           | <a href="https://www.gemdat.org/gem-42717.html">https://www.gemdat.org/gem-42717.html</a><br><a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a> |
| Coral                 | Golden         | Golden Coral                                                            | No treatment (rarely)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a, c, i & j                  | No                          | <a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a>                                                                                              |

The Gemstone Blue Book

| Nomenclature       |                 |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------|-----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type  | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                                                                                                                    |
|                    | Golden          | Golden Coral                                                            | Bleached from black coral<br>(commonly)                                                         | B/SC                       | Stable                                         | 6.1.<br>6.2.a, c, i & j                  | No                          | <a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a>                                                                                                                                                                                                          |
|                    | Black           | Black Coral                                                             | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, c, i & j                  | No                          | <a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a>                                                                                                                                                                                                          |
| Coral cont.        | (other colours) | Coral with colour prefix                                                | See pink coral                                                                                  |                            | See pink coral                                 | See pink coral                           | See pink coral              | <a href="https://www.gemdat.org/gem-42717.html">https://www.gemdat.org/gem-42717.html</a><br><a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Coral-Blue-Book.pdf</a>                                                                                                             |
| Cordierite         |                 | Cordierite, or Iolite                                                   | No treatment (Almost<br>always)                                                                 | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1128.html">https://www.mindat.org/min-1128.html</a>                                                                                                                                                                                                                                                                                                            |
|                    |                 | Corderite, or Iolite                                                    | Dyed (rarely)                                                                                   | D/SC                       | Unstable                                       | 6.1.<br>6.2. j, k                        | No                          | <a href="https://www.mindat.org/min-1128.html">https://www.mindat.org/min-1128.html</a>                                                                                                                                                                                                                                                                                                            |
| Corundum           | Ruby            | Ruby                                                                    | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a>                                                                                                                                                                                                                                                                                                            |
|                    | Ruby            | Ruby                                                                    | Heated (commonly)                                                                               | H                          | Stable                                         | 6.1.                                     | Occasionally                | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a>                                                                                                                                                                                                                                                                                                            |
|                    | Ruby            | Ruby                                                                    | Flux assisted healing of<br>fissures (commonly)                                                 | FAH                        | Stable                                         | 6.1.                                     | Occasionally                | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe91ce88251b84af67d92e/1543410128962/LMHC+Information+Sheet_1_V4_2011.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe91ce88251b84af67d92e/1543410128962/LMHC+Information+Sheet_1_V4_2011.pdf</a> |

## The Gemstone Blue Book

| Nomenclature       |                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------|----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                    | Ruby           | Ruby                                                                    | Glass filled open fractures<br>and cavities (commonly)                                          | F/SC                       | Unstable                                       | 6.1.<br>6.2.h & l                        | Very<br>unusual             | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf</a>                                                                                                                                  |
| Corundum cont..    | Ruby           | Ruby                                                                    | Lead glass filled open<br>fractures and cavities<br>(commonly)                                  | F/SC                       | Unstable                                       | 6.1.<br>6.2.h & l                        | No                          | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a><br><br><a href="https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf">https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf</a> |
|                    | Ruby and glass | Manufactured/Composite<br>material or product                           | Lead glass filled open<br>fractures and cavities<br>(commonly)                                  | F/SC                       | Unstable                                       | 6.1.<br>6.2. h & l                       | No                          | <a href="https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf">https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf</a>                                                                                                |
|                    | Ruby           | Ruby                                                                    | Dyed (occasionally)                                                                             | D/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | Very<br>unusual             | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

The Gemstone Blue Book

| Nomenclature       |                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------|----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                                                                                                                        |
|                    | Ruby           | Ruby                                                                    | Introduction/diffusion of<br>certain element(s) during<br>the heating process (rarely)          | U                          | Stable                                         | 6.1.<br>6.2.m (Shallow)                  | Very<br>unusual             | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe91f71ae6cf28edb2027a/1543410168363/LMHC+Information+Sheet_2_V7_2011.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe91f71ae6cf28edb2027a/1543410168363/LMHC+Information+Sheet_2_V7_2011.pdf</a> |
|                    | Ruby           | Ruby                                                                    | Near-colourless oil-in<br>fissures<br>(occasionally)                                            | O/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a>                                                                                                                                                                                                                                                                                                                |
| Corundum cont..    | Ruby           | Ruby                                                                    | Resins or other polymers in<br>fissures (rarely)                                                | RES/SC                     | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a>                                                                                                                                                                                                                                                                                                                |
|                    | Ruby           | Ruby                                                                    | Coloured oil in fissures<br>(occasionally)                                                      | D/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a>                                                                                                                                                                                                                                                                                                                |
|                    | Star Ruby      | Star Ruby                                                               | No treatment (occasionally)                                                                     | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a>                                                                                                                                                                                                                                                                                                                |
|                    | Star Ruby      | Star Ruby                                                               | Heated (rarely)                                                                                 | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a>                                                                                                                                                                                                                                                                                                                |
|                    | Star Ruby      | Star Ruby                                                               | Dyed (rarely)                                                                                   | D/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a>                                                                                                                                                                                                                                                                                                                |
|                    | Star Ruby      | Star Ruby                                                               | Near-colourless oil in<br>fissures<br>(occasionally)                                            | O/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a>                                                                                                                                                                                                                                                                                                                |

## The Gemstone Blue Book

| Nomenclature       |                     |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|---------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type      | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                    | Star Ruby           | Star Ruby                                                               | Introduction/diffusion of<br>certain element(s) during<br>the heating process (rarely)          | U/SC                       | Stable                                         | 6.1.<br>6.2.m (Shallow)                  | No                          | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe91f71ae6cf28edb2027a/1543410168363/LMHC+Information+Sheet_2_V7_2011.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe91f71ae6cf28edb2027a/1543410168363/LMHC+Information+Sheet_2_V7_2011.pdf</a>                                   |
|                    | Star Ruby           | Star Ruby                                                               | Lead glass filled open<br>fractures and cavities<br>(commonly)                                  | F/SC                       | Unstable                                       |                                          | No                          | <a href="https://www.mindat.org/min-3473.html">https://www.mindat.org/min-3473.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf</a>                                   |
| Corundum cont..    | Star Ruby and glass | Manufactured/composite<br>material or product                           | Lead glass filled open<br>fractures and cavities<br>(commonly)                                  | F/SC                       | Unstable                                       | 6.1.<br>6.2. h & l                       | No                          | <a href="https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf">https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf</a> |
|                    | Sapphire (blue)     | Sapphire                                                                | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                                                                                                                                                                  |
|                    | Sapphire (blue)     | Sapphire                                                                | Heated (commonly)                                                                               | H                          | Stable                                         | 6.1.                                     | Some                        | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                                                                                                                                                                  |
|                    | Sapphire (blue)     | Sapphire                                                                | Flux assisted healing of<br>fissures (rarely)                                                   | FAH                        | Stable                                         | 6.1.<br>6.2.l                            | No                          | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                                                                                                                                                                  |
|                    | Sapphire (blue)     | Sapphire                                                                | Glass filled open fractures<br>and cavities (rarely)                                            | F/SC                       | Unstable                                       | 6.1.<br>6.2.l                            | No                          | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                                                                                                                                                                  |

The Gemstone Blue Book

| Nomenclature       |                                  |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|----------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                   | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                    | Sapphire and glass               | Manufactured/composite<br>material or product                           | Lead glass filled open<br>fractures and cavities<br>(commonly)                                  | F/SC                       | Unstable                                       | 6.1.<br>6.2. h & l                       | No                          | <a href="https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf">https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf</a> |
|                    | Sapphire (blue)                  | Sapphire                                                                | Introduction/diffusion of<br>certain element(s) during<br>the heating process<br>(commonly)     | U/SC                       | Stable                                         | 6.1.<br>6.2.m (Shallow)                  | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe91f71ae6cf28edb2027a/1543410168363/LMHC+Information+Sheet_2_V7_2011.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe91f71ae6cf28edb2027a/1543410168363/LMHC+Information+Sheet_2_V7_2011.pdf</a>                                   |
| Corundum cont..    | Sapphire (blue)                  | Sapphire                                                                | Near-colourless oil in<br>fissures<br>(occasionally)                                            | O/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                                                                                                                                                                  |
|                    | Sapphire (blue)                  | Sapphire                                                                | Resins or other polymers in<br>fissures rarely                                                  | RES/SC                     | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                                                                                                                                                                  |
|                    | Star Sapphire (blue)             | Star Sapphire                                                           | No treatment (occasionally)                                                                     | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                                                                                                                                                                  |
|                    | Star Sapphire (blue)             | Star Sapphire                                                           | Introduction/diffusion of<br>certain element(s) during<br>the heating process<br>(occasionally) | U                          | Stable                                         | 6.1.<br>6.2.m (Shallow)                  | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                                                                                                                                                                  |
|                    | Star sapphire (other<br>colours) | Star Sapphire with colour<br>prefix                                     | No treatment (Occasionally)                                                                     | N                          | N/A                                            | 6.1.                                     | Some                        | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                                                                                                                                                                  |
|                    | Star sapphire (other<br>colours) | Star Sapphire with colour<br>prefix                                     | Heated (occasionally)                                                                           | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                                                                                                                                                                  |

| Nomenclature       |                                                      |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                                       | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                    | Star sapphire (other<br>colours)                     | Star Sapphire with colour<br>prefix                                     | Introduction/diffusion of<br>certain element(s) during<br>the heating process (rarely)          | U/SC                       | Stable                                         | 6.1.<br>6.2.m (Shallow)                  | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe91f71ae6cf28edb2027a/1543410168363/LMHC+Information+Sheet_2_V7_2011.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe91f71ae6cf28edb2027a/1543410168363/LMHC+Information+Sheet_2_V7_2011.pdf</a>                                   |
| Corundum cont..    | Star sapphire and glass                              | Manufactured/composite<br>material or product                           | Lead glass filled open<br>fractures and cavities<br>(occasionally)                              | F/SC                       | Unstable                                       | 6.2.l                                    | No                          | <a href="https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf">https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9219f950b7627afb4cb0/1543410205254/LMHC+Information+Sheet_3_V9_2012.pdf</a> |
|                    | Padparadscha subtle<br>mixture of pink and<br>orange | Padparadscha, or Pink-<br>Orange Sapphire                               | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-39947.html">https://www.mindat.org/min-39947.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9241f950b7627afb4e27/1543410242229/LMHC+Information+Sheet_4_V9_2018.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe9241f950b7627afb4e27/1543410242229/LMHC+Information+Sheet_4_V9_2018.pdf</a>                                 |
|                    | Padparadscha subtle<br>mixture of pink and<br>orange | Padparadscha, or Pink-<br>Orange Sapphire                               | Heated (commonly)                                                                               | H                          | Stable                                         | 6.1.                                     | Very<br>unusual             | <a href="https://www.mindat.org/min-39947.html">https://www.mindat.org/min-39947.html</a>                                                                                                                                                                                                                                                                                                                                                |
|                    | Pink-Orange sapphire                                 | Pink-Orange Sapphire                                                    | Irradiated (rarely)                                                                             | R/SC                       | Unstable                                       | 6.1.<br>6.2.m                            | Very<br>unusual             | <a href="https://www.mindat.org/min-39947.html">https://www.mindat.org/min-39947.html</a>                                                                                                                                                                                                                                                                                                                                                |

The Gemstone Blue Book

| Nomenclature       |                      |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                               |
|--------------------|----------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type       | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                      |
|                    | Pink-Orange sapphire | Pink-Orange Sapphire                                                    | Introduction/diffusion of<br>certain element(s) during<br>the heating process<br>(commonly)     | U/SC                       | Stable                                         | 6.1.<br>6.2.m (Shallow)                  | Very<br>unusual             | <a href="https://www.mindat.org/min-39947.html">https://www.mindat.org/min-39947.html</a><br><br><a href="https://www.gia.edu/doc/Summer-2003-Gems-Gemology-Beryllium-Diffusion-Ruby-Sapphire.pdf">https://www.gia.edu/doc/Summer-2003-Gems-Gemology-Beryllium-Diffusion-Ruby-Sapphire.pdf</a>       |
|                    | Orange sapphire      | Orange Sapphire                                                         | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                              |
|                    | Orange sapphire      | Orange Sapphire                                                         | Heated (commonly)                                                                               | H                          | Stable                                         | 6.1.                                     | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                              |
| Corundum cont..    | Orange sapphire      | Orange Sapphire                                                         | Introduction/diffusion of<br>certain element(s) during<br>the heating process<br>(commonly)     | U/SC                       | Stable                                         | 6.1.<br>6.2.m (Shallow)                  | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a><br><br><a href="https://www.gia.edu/doc/Summer-2003-Gems-Gemology-Beryllium-Diffusion-Ruby-Sapphire.pdf">https://www.gia.edu/doc/Summer-2003-Gems-Gemology-Beryllium-Diffusion-Ruby-Sapphire.pdf</a>         |
|                    | Orange sapphire      | Orange Sapphire                                                         | Irradiated (rarely)                                                                             | R/SC                       | Unstable                                       | 6.1.<br>6.2.m (Shallow)                  | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a><br><br><a href="https://www.gia.edu/doc/The-Seven-Types-of-Yellow-Sapphire-and-Their-Stability-to-Light.pdf">https://www.gia.edu/doc/The-Seven-Types-of-Yellow-Sapphire-and-Their-Stability-to-Light.pdf</a> |
|                    | Yellow sapphire      | Yellow Sapphire                                                         | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                              |
|                    | Yellow sapphire      | Yellow Sapphire                                                         | Irradiated (rarely)                                                                             | R/SC                       | Unstable                                       | 6.1.<br>6.2.m                            | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a><br><br><a href="https://www.gia.edu/doc/The-Seven-Types-of-Yellow-Sapphire-and-Their-Stability-to-Light.pdf">https://www.gia.edu/doc/The-Seven-Types-of-Yellow-Sapphire-and-Their-Stability-to-Light.pdf</a> |

The Gemstone Blue Book

| Nomenclature       |                    |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                               |
|--------------------|--------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type     | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                      |
|                    | Yellow sapphire    | Yellow Sapphire                                                         | Heated (commonly)                                                                               | H                          | Stable                                         | 6.1.                                     | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a><br><br><a href="https://www.gia.edu/doc/The-Seven-Types-of-Yellow-Sapphire-and-Their-Stability-to-Light.pdf">https://www.gia.edu/doc/The-Seven-Types-of-Yellow-Sapphire-and-Their-Stability-to-Light.pdf</a> |
|                    | Yellow sapphire    | Yellow Sapphire                                                         | Introduction/diffusion of<br>certain element(s) during<br>the heating process<br>(commonly)     | U                          | Stable                                         | 6.1.                                     | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a><br><br><a href="https://www.gia.edu/doc/Summer-2003-Gems-Gemology-Beryllium-Diffusion-Ruby-Sapphire.pdf">https://www.gia.edu/doc/Summer-2003-Gems-Gemology-Beryllium-Diffusion-Ruby-Sapphire.pdf</a>         |
| Corundum cont..    | (other colours)    | Sapphire with colour<br>prefix, or Corundum with<br>colour prefix       | No treatment (rarely)                                                                           | N                          | Stable (some yellow<br>are unstable)           | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                              |
|                    | (other colours)    | Sapphire with colour<br>prefix, or Corundum with<br>colour prefix       | Heated<br>(commonly)                                                                            | H                          | Stable                                         | 6.1.                                     | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a>                                                                                                                                                                                                              |
|                    | (other colours)    | Sapphire with colour<br>prefix, or Corundum with<br>colour prefix       | Introduction/diffusion of<br>certain element(s) during<br>the heating process<br>(commonly)     | U/SC                       | Stable                                         | 6.1.<br>6.2.m (Shallow)                  | Very<br>unusual             | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a><br><br><a href="https://www.gia.edu/doc/Summer-2003-Gems-Gemology-Beryllium-Diffusion-Ruby-Sapphire.pdf">https://www.gia.edu/doc/Summer-2003-Gems-Gemology-Beryllium-Diffusion-Ruby-Sapphire.pdf</a>         |
|                    | Corundum and glass | Manufactured/composite<br>material or product                           | Lead glass filled open<br>fractures and cavities<br>(commonly)                                  | F/SC                       | Unstable                                       | 6.1.<br>6.2. h & l                       | No                          | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a><br><br><a href="https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf">https://www.gia.edu/doc/Ruby-Glass-Composites-etc.pdf</a>                                                                             |

The Gemstone Blue Book

| Nomenclature       |                                                      |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                               |
|--------------------|------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                                       | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                      |
|                    | (other colours)                                      | Sapphire with colour<br>prefix, or Corundum with<br>colour prefix       | Irradiation to produce<br>yellow colour (rarely)                                                | R/SC                       | Unstable                                       | 6.1.<br>6.2.g                            | No                          | <a href="https://www.mindat.org/min-3529.html">https://www.mindat.org/min-3529.html</a><br><br><a href="https://www.gia.edu/doc/The-Seven-Types-of-Yellow-Sapphire-and-Their-Stability-to-Light.pdf">https://www.gia.edu/doc/The-Seven-Types-of-Yellow-Sapphire-and-Their-Stability-to-Light.pdf</a> |
| Danburite          |                                                      | Danburite                                                               | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-1218.html">https://www.mindat.org/min-1218.html</a>                                                                                                                                                                                                              |
| Datolite           |                                                      | Datolite                                                                | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-1340.html">https://www.mindat.org/min-1340.html</a>                                                                                                                                                                                                              |
| Diamond            |                                                      | See the CIBJO Diamond<br>Book                                           | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-26-Official-Diamond-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-26-Official-Diamond-Book.pdf</a>                                                                                                                  |
| Diaspore           |                                                      | Diaspore                                                                | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-1285.html">https://www.mindat.org/min-1285.html</a>                                                                                                                                                                                                              |
| Diopside           |                                                      | Diopside                                                                | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-1294.html">https://www.mindat.org/min-1294.html</a>                                                                                                                                                                                                              |
| Diopside           | Chrome Diopside<br>(green colour due to<br>chromium) | Chrome Diopside                                                         | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.gemdat.org/gem-10648.html">https://www.gemdat.org/gem-10648.html</a>                                                                                                                                                                                                            |
|                    | Violane (purple)                                     | Violan, or Violane                                                      | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.gemdat.org/gem-8118.html">https://www.gemdat.org/gem-8118.html</a>                                                                                                                                                                                                              |
|                    | Star Diopside                                        | Star Diopside                                                           | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.gemdat.org/gem-1294.html">https://www.gemdat.org/gem-1294.html</a>                                                                                                                                                                                                              |
| Diopase            |                                                      | Diopase                                                                 | No treatment (Always)                                                                           | N                          | N/A                                            | –                                        | No                          | <a href="https://www.mindat.org/min-1295.html">https://www.mindat.org/min-1295.html</a>                                                                                                                                                                                                              |
| Disthene           |                                                      | See Kyanite                                                             | No treatment (Always)                                                                           | N                          | N/A                                            | –                                        | No                          | <a href="https://www.mindat.org/min-25543.html">https://www.mindat.org/min-25543.html</a>                                                                                                                                                                                                            |

The Gemstone Blue Book

| Nomenclature          |                                        |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                   |
|-----------------------|----------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species    | Variety / type                         | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                          |
| Dolomite              |                                        | Dolomite                                                                | No treatment (Always)                                                                           | N                          | N/A                                            | –                                        | No                          | <a href="https://www.mindat.org/min-1304.html">https://www.mindat.org/min-1304.html</a>                                                                                                                  |
| Dumortierite          |                                        | Dumortierite                                                            | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1329.html">https://www.mindat.org/min-1329.html</a>                                                                                                                  |
| Ekanite               |                                        | Ekanite                                                                 | No treatment (Always)                                                                           | N                          | N/A                                            | Naturally<br>radioactive                 | No                          | <a href="https://www.mindat.org/min-1361.html">https://www.mindat.org/min-1361.html</a>                                                                                                                  |
| Enstatite             |                                        | Enstatite                                                               | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-1384.html">https://www.mindat.org/min-1384.html</a>                                                                                                                  |
|                       | (with green colour due<br>to chromium) | Chrome Enstatite                                                        | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-1384.html">https://www.mindat.org/min-1384.html</a>                                                                                                                  |
|                       | Bronzite                               | Bronzite                                                                | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-5293.html">https://www.mindat.org/min-5293.html</a>                                                                                                                  |
| Enstatite-Ferrosilite | Ferroan Enstatite                      | Hypersthene                                                             | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-1995.html">https://www.mindat.org/min-1995.html</a>                                                                                                                  |
| Epidote               |                                        | Epidote                                                                 | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-1389.html">https://www.mindat.org/min-1389.html</a>                                                                                                                  |
| Euclase               |                                        | Euclase                                                                 | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-1418.html">https://www.mindat.org/min-1418.html</a>                                                                                                                  |
| Feldspar (group)      |                                        |                                                                         | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-1624.html">https://www.mindat.org/min-1624.html</a>                                                                                                                  |
|                       | Albite                                 | Albite                                                                  | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-96.html">https://www.mindat.org/min-96.html</a>                                                                                                                      |
|                       | Andesine (red)                         | Andesine                                                                | No treatment (rarely)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-220.html">https://www.mindat.org/min-220.html</a>                                                                                                                    |
|                       | Andesine (red)                         | Andesine                                                                | Cu diffusion (commonly)                                                                         | U/SC                       | Stable                                         | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-220.html">https://www.mindat.org/min-220.html</a><br><a href="https://www.gia.edu/doc/separation-abduriyim.pdf">https://www.gia.edu/doc/separation-abduriyim.pdf</a> |

The Gemstone Blue Book

| Nomenclature       |                                     |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                     |
|--------------------|-------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                      | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                            |
|                    | Oligoclase                          | Oligoclase                                                              | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-2976.html">https://www.mindat.org/min-2976.html</a>                                                                                                                    |
|                    | Oligoclase with<br>aventurescence   | Sunstone, or<br>aventurescent feldspar                                  | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-10984.html">https://www.mindat.org/min-10984.html</a>                                                                                                                  |
| Anorthite          | Bytownite                           | Bytownite                                                               | No treatment (always)                                                                           |                            |                                                |                                          |                             | <a href="https://www.mindat.org/min-815.html">https://www.mindat.org/min-815.html</a>                                                                                                                      |
|                    | Labradorite                         | Labradorite                                                             | No treatment (occasionally)                                                                     | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-2308.html">https://www.mindat.org/min-2308.html</a>                                                                                                                    |
|                    |                                     | Labradorite                                                             | Cu diffusion (commonly)                                                                         | U/SC                       | Stable                                         | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-2308.html">https://www.mindat.org/min-2308.html</a><br><a href="https://www.gia.edu/doc/separation-abduriyim.pdf">https://www.gia.edu/doc/separation-abduriyim.pdf</a> |
|                    | Labradorite                         | Labradorite                                                             | Surface near-colourless<br>waxing<br>(occasionally)                                             | W/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-2308.html">https://www.mindat.org/min-2308.html</a>                                                                                                                    |
|                    | Labradorite with<br>labradorescence | Labradorite, or Spectrolite                                             | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-9131.html">https://www.mindat.org/min-9131.html</a>                                                                                                                    |
|                    | Labradorite with<br>labradorescence | Labradorite, or Spectrolite                                             | Surface near-colourless<br>waxing<br>(occasionally)                                             | W/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-9131.html">https://www.mindat.org/min-9131.html</a>                                                                                                                    |
|                    | Labradorite with<br>aventurescence  | LabradoriteSunstone                                                     | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-10984.html">https://www.mindat.org/min-10984.html</a>                                                                                                                  |
|                    | Labradorite with<br>labradorescence | Labradorite, or Spectrolite                                             | Dyed (occasionally)                                                                             | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, j & k                  | No                          | <a href="https://www.mindat.org/min-9131.html">https://www.mindat.org/min-9131.html</a>                                                                                                                    |
| Microcline         | Amazonite                           | Amazonite                                                               | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-184.html">https://www.mindat.org/min-184.html</a>                                                                                                                      |
|                    | Amazonite                           | Amazonite                                                               | Near-colourless waxed or<br>oiled (commonly)                                                    | W/SC<br>or O/SC            | Unstable                                       | 6.1.<br>6.2.b, j & k                     | No                          | <a href="https://www.mindat.org/min-184.html">https://www.mindat.org/min-184.html</a>                                                                                                                      |

The Gemstone Blue Book

| Nomenclature       |                                                                                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                  |
|--------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|
| Material / Species | Variety / type                                                                 | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                         |
|                    | Amazonite                                                                      | Amazonite                                                               | Impregnated-with near-<br>colourless plastic or<br>hardened resins<br>(occasionally)            | I/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-184.html">https://www.mindat.org/min-184.html</a>   |
| Orthoclase         |                                                                                | Orthoclase                                                              | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-3026.html">https://www.mindat.org/min-3026.html</a> |
|                    | Orthoclase transparent,<br>yellow                                              | Yellow Orthoclase                                                       | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-3026.html">https://www.mindat.org/min-3026.html</a> |
|                    | Adularia (orthoclase<br>with adularescence)                                    | Moonstone                                                               | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1..<br>6.2.b & j                       | No                          | <a href="https://www.mindat.org/min-2774.html">https://www.mindat.org/min-2774.html</a> |
| Fluorite           |                                                                                | Fluorite                                                                | No treatment ((Always)                                                                          | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b & j                     | No                          | <a href="https://www.mindat.org/min-1576.html">https://www.mindat.org/min-1576.html</a> |
| Fluorite cont.     | Blue Fluorite                                                                  |                                                                         | No treatment (Occasionally)                                                                     | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b & j                     | No                          | <a href="https://www.mindat.org/min-1576.html">https://www.mindat.org/min-1576.html</a> |
|                    | Blue Fluorite                                                                  |                                                                         | Heated<br>(Occasionally)                                                                        | H/SC                       | Stable                                         | 6.1.<br>6.2.a, b & j                     | No                          | <a href="https://www.mindat.org/min-1576.html">https://www.mindat.org/min-1576.html</a> |
|                    | Blue John<br>(Multicoloured: mainly<br>blue, violet and purple,<br>and banded) | Blue John                                                               | No treatment (Commonly                                                                          | N/SC                       | N/A                                            | 6.1.<br>6.2. a, b & j                    | No                          | <a href="https://www.mindat.org/min-698.html">https://www.mindat.org/min-698.html</a>   |
|                    | Blue John<br>(Multicoloured: mainly<br>blue, violet and purple,<br>and banded) | Blue John                                                               | Impregnated with near-<br>colourless resin (rarely)                                             | I/SC                       | N/A                                            | 6.1.<br>6.2. j & k                       | No                          | <a href="https://www.mindat.org/min-698.html">https://www.mindat.org/min-698.html</a>   |
| Forsterite         |                                                                                | See also Peridot                                                        | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-1584.html">https://www.mindat.org/min-1584.html</a> |
| Gahnite            |                                                                                | See Spinel                                                              | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-1632.html">https://www.mindat.org/min-1632.html</a> |

The Gemstone Blue Book

| Nomenclature        |                                                                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                               |
|---------------------|----------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species  | Variety / type                                                 | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                      |
| Gahnospinel         |                                                                | See Spinel                                                              | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-1633.html">https://www.mindat.org/min-1633.html</a>                                                                                                                                              |
| Garnet (group)      |                                                                |                                                                         | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-10272.html">https://www.mindat.org/min-10272.html</a>                                                                                                                                            |
| Almandine           |                                                                | Almandine or Almandite                                                  | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-452.html">https://www.mindat.org/min-452.html</a>                                                                                                                                                |
| Almandine-Pyropes   | Rhodolite                                                      | Rhodolite                                                               | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-6719.html">https://www.mindat.org/min-6719.html</a>                                                                                                                                              |
| Andradite           |                                                                | Andradite                                                               | No treatment (Always)<br>except demantoid                                                       | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-223.html">https://www.mindat.org/min-223.html</a>                                                                                                                                                |
|                     | Demantoid                                                      | Demantoid                                                               | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-1258.html">https://www.mindat.org/min-1258.html</a>                                                                                                                                              |
|                     | Demantoid                                                      | Demantoid                                                               | Heated<br>(commonly)                                                                            | H                          | Stable                                         | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-1258.html">https://www.mindat.org/min-1258.html</a><br><a href="https://gsa.confex.com/gsa/2017AM/webprogram/Paper294617.html">https://gsa.confex.com/gsa/2017AM/webprogram/Paper294617.html</a> |
|                     | Melanite                                                       | Melanite                                                                | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-7443.html">https://www.mindat.org/min-7443.html</a>                                                                                                                                              |
|                     | Topazolite                                                     | Topazolite                                                              | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-7535.html">https://www.mindat.org/min-7535.html</a>                                                                                                                                              |
| Andradite-Grossular |                                                                | Mali garnet                                                             | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-8597.html">https://www.mindat.org/min-8597.html</a>                                                                                                                                              |
| Grossular           | Tsavorite (green colour<br>due to vanadium<br>and/or chromium) | Tsavorite, or Tsavolite, or<br>Chrome Grossular                         | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-1755.html">https://www.mindat.org/min-1755.html</a><br><a href="https://www.mindat.org/min-7836.html">https://www.mindat.org/min-7836.html</a>                                                   |

## The Gemstone Blue Book

| Nomenclature       |                              |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                         |
|--------------------|------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type               | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                |
|                    | Hessonite                    | Hessonite                                                               | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-1882.html">https://www.mindat.org/min-1882.html</a>                                                                                        |
|                    | Grossular (other<br>colours) | Grossular with colour<br>prefix                                         | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-1755.html">https://www.mindat.org/min-1755.html</a>                                                                                        |
| Pyrope             |                              | Pyrope                                                                  | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-3321.html">https://www.mindat.org/min-3321.html</a>                                                                                        |
|                    | Chrome Pyrope                | Chrome Pyrope                                                           | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-41651.html">https://www.mindat.org/min-41651.html</a>                                                                                      |
| Pyrope-Spessartine |                              | Pyrope-Spessartine, or<br>Malaya Garnet or<br>Umbalite                  | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-42908.html">https://www.mindat.org/min-42908.html</a>                                                                                      |
| Spessartine        |                              | Spessartine, Spessartite or<br>Mandarin Garnet                          | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-3725.html">https://www.mindat.org/min-3725.html</a>                                                                                        |
| Uvarovite          |                              | Uvarovite                                                               | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.e                            | No                          | <a href="https://www.mindat.org/min-4125.html">https://www.mindat.org/min-4125.html</a>                                                                                        |
| Grossular          |                              | See Garnet (group)                                                      | –                                                                                               | –                          | –                                              | –                                        | No                          | <a href="https://www.mindat.org/min-1755.html">https://www.mindat.org/min-1755.html</a>                                                                                        |
| Grandidierite      |                              | Grandidierite                                                           | No treatment (Always)                                                                           | N                          | N/A                                            | –                                        | No                          | <a href="https://www.mindat.org/min-1737.html">https://www.mindat.org/min-1737.html</a>                                                                                        |
| Gypsum             | Alabaster                    | Alabaster                                                               | No treatment (Rarely)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, c & j                  | No                          | <a href="https://www.mindat.org/min-1784.html">https://www.mindat.org/min-1784.html</a><br><a href="https://www.mindat.org/min-90.html">https://www.mindat.org/min-90.html</a> |
|                    | Alabaster                    | Alabaster                                                               | Dyed (commonly)                                                                                 | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, c, j & k               | No                          | <a href="https://www.mindat.org/min-90.html">https://www.mindat.org/min-90.html</a>                                                                                            |
| Gypsum cont..      | Alabaster                    | Alabaster                                                               | Surface near-colourless<br>waxing (commonly)                                                    | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, c, j & k               | No                          | <a href="https://www.mindat.org/min-90.html">https://www.mindat.org/min-90.html</a>                                                                                            |

The Gemstone Blue Book

| Nomenclature       |                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                  |
|--------------------|----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|
| Material / Species | Variety / type | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                         |
|                    | Satin Spar     | Satin Spar                                                              | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, c & j                  | No                          | <a href="https://www.mindat.org/min-8574.html">https://www.mindat.org/min-8574.html</a> |
| Hauyne             |                | Hauyne                                                                  | No treatment (almost<br>always)                                                                 | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1833.html">https://www.mindat.org/min-1833.html</a> |
| Hauyne cont.       |                | Hauyne                                                                  | Impregnated with near-<br>colourless plastic or<br>hardened resin (rarely)                      | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, j & k                  | No                          | <a href="https://www.mindat.org/min-1833.html">https://www.mindat.org/min-1833.html</a> |
| Hematite           |                | Hematite                                                                | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1856.html">https://www.mindat.org/min-1856.html</a> |
| Hibonite           |                | Hibonite                                                                | No treatment (Always)                                                                           | N                          | N/A                                            | –                                        | No                          | <a href="https://www.mindat.org/min-1897.html">https://www.mindat.org/min-1897.html</a> |
| Horn               |                | Horn                                                                    | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, c, i, j & m               | No                          | Pedersen M.C., 2004. Gem and ornamental materials of<br>organic origin (book)           |
|                    |                | Horn                                                                    | Bleached<br>(commonly)                                                                          | B/SC                       | Stable                                         | 6.1.<br>6.2.a, c, i & j                  | No                          | Pedersen M.C., 2004. Gem and ornamental materials of<br>organic origin (book)           |
|                    |                | Horn                                                                    | Dyed<br>(occasionally)                                                                          | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, f, i, j & k            | No                          | Pedersen M.C., 2004. Gem and ornamental materials of<br>organic origin (book)           |
|                    |                | Horn                                                                    | Near-colourless surface<br>waxing<br>(occasionally)                                             | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, f, i, j & k            | No                          | Pedersen M.C., 2004. Gem and ornamental materials of<br>organic origin (book)           |
| Horn               |                | Horn                                                                    | Impregnated with near-<br>colourless plastic or<br>hardened resins<br>(commonly)                | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, i, j & k                  | No                          | Pedersen M.C., 2004. Gem and ornamental materials of<br>organic origin (book)           |

## The Gemstone Blue Book

| Nomenclature       |                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                                                                          |
|--------------------|----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                                                                 |
| Howlite            |                | Howlite                                                                 | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1936.html">https://www.mindat.org/min-1936.html</a>                                                                                                                                                                                                                                                         |
|                    |                | Howlite                                                                 | Dyed (almost always)                                                                            | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, j & k                  | No                          | <a href="https://www.mindat.org/min-1936.html">https://www.mindat.org/min-1936.html</a>                                                                                                                                                                                                                                                         |
| Hypersthene        |                | See Enstatite                                                           | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-1995.html">https://www.mindat.org/min-1995.html</a>                                                                                                                                                                                                                                                         |
| Idocrase           |                | See Vesuvianite                                                         | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-4223.html">https://www.mindat.org/min-4223.html</a>                                                                                                                                                                                                                                                         |
| Iolite             |                | See Cordierite                                                          | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-5119.html">https://www.mindat.org/min-5119.html</a>                                                                                                                                                                                                                                                         |
| Ivory              |                | Ivory                                                                   | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, c, i, j & m               | No                          | <a href="https://www.mindat.org/min-42718.html">https://www.mindat.org/min-42718.html</a>                                                                                                                                                                                                                                                       |
| Ivory cont..       |                | Ivory                                                                   | Bleached<br>(commonly)                                                                          | B/SC                       | Stable                                         | 6.1.<br>6.2.a, c, i & j                  | No                          | <a href="https://www.mindat.org/min-42718.html">https://www.mindat.org/min-42718.html</a>                                                                                                                                                                                                                                                       |
|                    |                | Ivory                                                                   | Dyed<br>(occasionally)                                                                          | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, f, i, j & k            | No                          | <a href="https://www.mindat.org/min-42718.html">https://www.mindat.org/min-42718.html</a>                                                                                                                                                                                                                                                       |
|                    |                | Ivory                                                                   | Near-colourless surface<br>waxing<br>(occasionally)                                             | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, f, i, j & k            | No                          | <a href="https://www.mindat.org/min-42718.html">https://www.mindat.org/min-42718.html</a>                                                                                                                                                                                                                                                       |
|                    |                | Ivory                                                                   | Impregnated with near-<br>colourless plastic or<br>hardened resins (commonly)                   | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, i, j & k                  | No                          | <a href="https://www.mindat.org/min-42718.html">https://www.mindat.org/min-42718.html</a>                                                                                                                                                                                                                                                       |
|                    | Elephant Ivory | Ivory, or Elephant Ivory                                                | See ivory above                                                                                 | –                          | See ivory above                                | See ivory above                          | See ivory<br>above          | <a href="https://www.mindat.org/min-42718.html">https://www.mindat.org/min-42718.html</a><br><br><a href="https://cites.org/sites/default/files/eng/resources/pub/E-Ivory-guide.pdf">https://cites.org/sites/default/files/eng/resources/pub/E-Ivory-guide.pdf</a><br><br>Pedersen M.C., 2015. Ivory. The Crowood Press Ltd.,<br>240 pp. (book) |

The Gemstone Blue Book

| Nomenclature       |                       |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                   |
|--------------------|-----------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type        | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                          |
|                    | Mammoth Ivory         | Mammoth Ivory                                                           | See ivory and above                                                                             | –                          | See ivory above                                | See ivory above                          | See ivory<br>above          | <a href="https://www.mindat.org/min-42718.html">https://www.mindat.org/min-42718.html</a><br><br>Pedersen M.C., 2015. Ivory. The Crowood Press Ltd.,<br>240 pp. (book)                                                                                                   |
|                    | Mastodon Ivory        | Mastodon Ivory                                                          | See ivory and above                                                                             | –                          | See ivory above                                | See ivory above                          | See ivory<br>above          | <a href="https://www.mindat.org/min-42718.html">https://www.mindat.org/min-42718.html</a><br><br>Pedersen M.C., 2015. Ivory. The Crowood Press Ltd.,<br>240 pp. (book)                                                                                                   |
| Ivory cont..       | Teeth (other animals) | Ivory (with name of<br>animal)                                          | See ivory and above                                                                             | –                          | See ivory above                                | See ivory above                          | See ivory<br>above          | <a href="https://www.mindat.org/min-42718.html">https://www.mindat.org/min-42718.html</a><br><br>Pedersen M.C., 2015. Ivory. The Crowood Press Ltd.,<br>240 pp. (book)                                                                                                   |
|                    | Odontolite            | Odontolite                                                              | See ivory and above                                                                             | –                          | See ivory above                                | See ivory above                          | See ivory<br>above          | <a href="https://www.mindat.org/min-32412.html">https://www.mindat.org/min-32412.html</a><br><br>Pedersen M.C., 2015. Ivory. The Crowood Press Ltd.,<br>240 pp. (book)                                                                                                   |
| Jadeite            |                       | Jadeite, Jadeite-jade                                                   | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | Yes                         | <a href="https://www.mindat.org/min-2062.html">https://www.mindat.org/min-2062.html</a><br><br><a href="https://www.gia.edu/doc/A-Study-of-the-General-Electric-Synthetic-Jadeite.pdf">https://www.gia.edu/doc/A-Study-of-the-General-Electric-Synthetic-Jadeite.pdf</a> |

The Gemstone Blue Book

| Nomenclature       |                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                     |
|--------------------|----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                            |
|                    |                | Jadeite, Jadeite-jade                                                   | Near-colourless<br>polymer impregnation<br>(commonly)                                           | I/SC                       | Unstable                                       | 6.1.<br>6.2. j & k                       | No                          | <a href="https://www.mindat.org/min-2062.html">https://www.mindat.org/min-2062.html</a><br><br><a href="https://www.gia.edu/doc/Identification-of-Bleached-and-Polymer-Impregnated-Jadeite.pdf">https://www.gia.edu/doc/Identification-of-Bleached-and-Polymer-Impregnated-Jadeite.pdf</a> |
|                    |                | Jadeite, Jadeite-jade                                                   | Polymer and colour<br>impregnation following<br>acid treatment (commonly)                       | I/SC                       | Variable                                       | 6.1.<br>6.2. j & k                       | No                          | <a href="https://www.mindat.org/min-2062.html">https://www.mindat.org/min-2062.html</a><br><br><a href="https://www.gia.edu/doc/Identification-of-Bleached-and-Polymer-Impregnated-Jadeite.pdf">https://www.gia.edu/doc/Identification-of-Bleached-and-Polymer-Impregnated-Jadeite.pdf</a> |
|                    |                | Jadeite, or Jadeite-jade.                                               | Dyed (commonly)                                                                                 | D/SC                       | Unstable                                       | 6.1.<br>6.2. j & k                       | No                          | <a href="https://www.mindat.org/min-2062.html">https://www.mindat.org/min-2062.html</a>                                                                                                                                                                                                    |
| Jadeite cont..     |                | Jadeite, or Jadeite-jade.                                               | Heated (rarely)                                                                                 | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-2062.html">https://www.mindat.org/min-2062.html</a>                                                                                                                                                                                                    |
|                    | Chloromelanite | Chloromelanite                                                          | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1023.html">https://www.mindat.org/min-1023.html</a>                                                                                                                                                                                                    |
|                    |                | Fei Cui (Chinese specific<br>market terminology)                        | See jadeite above                                                                               | See<br>jadeite<br>above    | See jadeite above                              | See jadeite<br>above                     | Yes                         | <a href="https://www.mindat.org/min-50397.html">https://www.mindat.org/min-50397.html</a>                                                                                                                                                                                                  |
| Jeremejevite       |                | Jeremejevite                                                            | No treatment (Always)                                                                           | N                          | N/A                                            | –                                        | No                          | <a href="https://www.mindat.org/min-2090.html">https://www.mindat.org/min-2090.html</a>                                                                                                                                                                                                    |
| Jet                |                | Jet, or Gagat                                                           | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, & j                    | No                          | <a href="https://www.mindat.org/min-9355.html">https://www.mindat.org/min-9355.html</a>                                                                                                                                                                                                    |
| Johachidolite      |                | Johachidolite                                                           | No treatment (Always)                                                                           | N                          | N/A                                            | –                                        | No                          | <a href="https://www.mindat.org/min-2101.html">https://www.mindat.org/min-2101.html</a>                                                                                                                                                                                                    |

The Gemstone Blue Book

| Nomenclature       |                               |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                  |
|--------------------|-------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|
| Material / Species | Variety / type                | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                         |
| Kosmochlor         |                               | Kosmochlor                                                              | No treatment (Always)                                                                           | N                          | N/A                                            | –                                        | No                          | <a href="https://www.mindat.org/min-2258.html">https://www.mindat.org/min-2258.html</a> |
| Kornerupine        |                               | Kornerupine                                                             | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.a, b, & j                    | No                          | <a href="https://www.mindat.org/min-2254.html">https://www.mindat.org/min-2254.html</a> |
| Kyanite            |                               | Kyanite, or Disthene                                                    | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.<br>6.2.a, b, & j                    | No                          | <a href="https://www.mindat.org/min-2303.html">https://www.mindat.org/min-2303.html</a> |
| Labradorite        |                               | See Feldspar                                                            | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-2308.html">https://www.mindat.org/min-2308.html</a> |
| Lapis Lazuli       |                               | Lapis Lazuli, or Lapis                                                  | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.h & j                        | No                          | <a href="https://www.mindat.org/min-2330.html">https://www.mindat.org/min-2330.html</a> |
|                    |                               | Lapis Lazuli, or Lapis                                                  | Surface near-colourless<br>waxing (commonly)                                                    | W/SC                       | Unstable                                       | 6.1.<br>6.2.h, j & k                     | No                          | <a href="https://www.mindat.org/min-2330.html">https://www.mindat.org/min-2330.html</a> |
|                    |                               | Lapis Lazuli, or Lapis                                                  | Dyed (commonly)                                                                                 | D/SC                       | Variable                                       | 6.1.<br>6.2.h, j & k                     | No                          | <a href="https://www.mindat.org/min-2330.html">https://www.mindat.org/min-2330.html</a> |
| Lazulite           |                               | Lazulite                                                                | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-2356.html">https://www.mindat.org/min-2356.html</a> |
| Lazurite           |                               | Lazurite                                                                | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-2357.html">https://www.mindat.org/min-2357.html</a> |
| Lizardite          |                               | See Serpentine                                                          | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-2425.html">https://www.mindat.org/min-2425.html</a> |
| Londonite          | Londonite-Rhodizite<br>series | Londonite                                                               | No treatment (Always)                                                                           | N                          | N/A                                            | –                                        | No                          | <a href="https://www.mindat.org/min-7082.html">https://www.mindat.org/min-7082.html</a> |
| Magnesite          |                               | Magnesite                                                               | Dyed (almost always)                                                                            | D/SC                       | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-2482.html">https://www.mindat.org/min-2482.html</a> |

The Gemstone Blue Book

| Nomenclature       |                    |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                    |
|--------------------|--------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------|
| Material / Species | Variety / type     | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                           |
| Magnetite          |                    | Magnetite                                                               | No treatment (Always)                                                                           | N                          | N/A                                            | –                                        | Yes                         | <a href="https://www.mindat.org/min-2538.html">https://www.mindat.org/min-2538.html</a>   |
| Malachite          |                    | Malachite                                                               | No treatment (Commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, c & j                  | Few                         | <a href="https://www.mindat.org/min-2550.html">https://www.mindat.org/min-2550.html</a>   |
|                    |                    | Malachite                                                               | Surface near-colourless<br>waxing (Occasionally)                                                | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, c, j & k               | No                          | <a href="https://www.mindat.org/min-2550.html">https://www.mindat.org/min-2550.html</a>   |
|                    |                    | Malachite                                                               | Impregnated with near-<br>colourless plastic or<br>hardened resin (rarely)                      | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, c, j & k               | No                          | <a href="https://www.mindat.org/min-2550.html">https://www.mindat.org/min-2550.html</a>   |
| Maw-sit-sit        |                    | Maw-sit-sit                                                             | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-42915.html">https://www.mindat.org/min-42915.html</a> |
| Microcline         |                    | See Feldspar                                                            | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-2704.html">https://www.mindat.org/min-2704.html</a>   |
| Moldavite          |                    | See Tektite                                                             | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-10860.html">https://www.mindat.org/min-10860.html</a> |
| Montebrasite       |                    | See Amblygonite                                                         | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://zh.mindat.org/min-2763.html">https://zh.mindat.org/min-2763.html</a>     |
| Musgravite         |                    | Musgravite                                                              | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.gemdat.org/gem-27238.html">https://www.gemdat.org/gem-27238.html</a> |
| Obsidian           |                    | Obsidian                                                                | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-8519.html">https://www.mindat.org/min-8519.html</a>   |
|                    | Mahogany Obsidian  | Mahogany Obsidian                                                       | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-8519.html">https://www.mindat.org/min-8519.html</a>   |
|                    | Sheen Obsidian     | Sheen Obsidian                                                          | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-8519.html">https://www.mindat.org/min-8519.html</a>   |
|                    | Snowflake Obsidian | Snowflake Obsidian                                                      | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-8519.html">https://www.mindat.org/min-8519.html</a>   |

## The Gemstone Blue Book

| Nomenclature         |                                                                                                     |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                  |
|----------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|
| Material / Species   | Variety / type                                                                                      | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                         |
|                      | Rainbow Obsidian                                                                                    | Rainbow Obsidian                                                        | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-8519.html">https://www.mindat.org/min-8519.html</a> |
| Oligoclase           |                                                                                                     | See Feldspar                                                            | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-2976.html">https://www.mindat.org/min-2976.html</a> |
| Olivine (Forsterite) | Peridot                                                                                             | Peridot                                                                 | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.e & h                        | No                          | <a href="https://www.mindat.org/min-7710.html">https://www.mindat.org/min-7710.html</a> |
|                      | Peridot                                                                                             | Peridot                                                                 | near-colourless oil and wax<br>in fissures (rarely)                                             | O/SC                       | Unstable                                       | 6.1.<br>6.2.e, h & k                     | No                          | <a href="https://www.mindat.org/min-7710.html">https://www.mindat.org/min-7710.html</a> |
|                      | Peridot                                                                                             | Peridot                                                                 | Resins or other polymers in<br>fissures (rarely)                                                | RES/SC                     | Unstable                                       | 6.1.<br>6.2.e, h & k                     | No                          | <a href="https://www.mindat.org/min-7710.html">https://www.mindat.org/min-7710.html</a> |
|                      | Peridot                                                                                             | Peridot                                                                 | Filled open fractures with<br>near-colourless hardened<br>resin (rarely)                        | F/SC                       | Unstable                                       | 6.1.<br>6.2.e, h & k                     | No                          | <a href="https://www.mindat.org/min-7710.html">https://www.mindat.org/min-7710.html</a> |
| Precious Opal        | (Play-of-colour) – may<br>on the basis of body<br>tone/ transparency, or<br>colour be described as: |                                                                         | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                      | Black to very dark                                                                                  | Black Opal                                                              | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | Many                        | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
| Opal cont.           | Black to very dark                                                                                  | Black Opal                                                              | Impregnated with plastic or<br>resin (rarely)                                                   | I/SC                       | Unstable                                       | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                      | Black to very dark<br>(transparent to near<br>transparent)                                          | Black Crystal Opal                                                      | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | Many                        | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                      | Black to very dark<br>(transparent to near-<br>transparent)                                         | Black Crystal Opal                                                      | Impregnated with plastic or<br>resin (rarely)                                                   | I/SC                       | Unstable                                       | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |

The Gemstone Blue Book

| Nomenclature       |                                                  |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                  |
|--------------------|--------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|
| Material / Species | Variety / type                                   | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                         |
|                    | White                                            | White Opal                                                              | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | Many                        | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | White                                            | White Opal                                                              | Impregnated with plastic or<br>resin (rarely)                                                   | I/SC                       | Unstable                                       | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | White (transparent to<br>near-transparent)       | Crystal opal or water opal                                              | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | Many                        | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | White (transparent to<br>near-transparent)       | Crystal opal or water opal                                              | Impregnated with plastic or<br>resin (rarely)                                                   | I/SC                       | Unstable                                       | 6.1.<br>6.2.b, c, d, e, j &<br>k         | Many                        | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | Oolitic Opal                                     | Oolitic Opal                                                            | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | Oolitic Opal                                     | Oolitic Opal                                                            | Impregnated with plastic or<br>resin (rarely)                                                   | I/SC                       | Unstable                                       | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | Orange to Red<br>(transparent to<br>translucent) | Fire Opal                                                               | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
| Opal cont.         | (Attached to ironstone)                          | Boulder Opal                                                            | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | (Attached to ironstone)                          | Boulder Opal                                                            | Near colourless polymers in<br>voids and fissures<br>(occasionally)                             | F/SC                       | Unstable                                       | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | (In matrix)                                      | Matrix Opal                                                             | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | (In matrix)                                      | Matrix Opal                                                             | Sugar / acid treatment<br>(commonly)                                                            | D/SC                       | Stable                                         | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |

The Gemstone Blue Book

| Nomenclature       |                                                                                                         |                                                                         | Treatment                                                                                       |                            |                                                  | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                  |
|--------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------------|------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|
| Material / Species | Variety / type                                                                                          | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable   |                                          |                             |                                                                                         |
|                    | Hydrophane                                                                                              | Hydrophane                                                              | No treatment (Rarely)                                                                           | N/SC                       | N/A                                              | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | Hydrophane                                                                                              | Hydrophane                                                              | Near colourless polymers in<br>voids and fissures<br>(occasionally)                             | F/SC                       | Unstable<br>(weight of stone<br>may be unstable) | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | Hydrophane                                                                                              | Hydrophane                                                              | Sugar / acid treatment<br>(commonly)                                                            | D/SC                       | Unstable<br>(weight of stone<br>may be unstable) | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | Hydrophane                                                                                              | Hydrophane                                                              | Dying (Occasionally)                                                                            | D/SC                       | Unstable<br>(weight of stone<br>may be unstable) | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | Hydrophane                                                                                              | Hydrophane                                                              | Smoke treatment<br>(occasionally)                                                               | D/SC                       | Unstable<br>(weight of stone<br>may be unstable) | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
| Opal cont..        | (No play-of-colour)<br>Common opal – may on<br>the basis of colour /<br>inclusions, be<br>described as: | Common Opal                                                             | No treatment (commonly)                                                                         | N/SC                       | N/A                                              | 6.1.<br>6.2.b, c, d, e & j               | Many                        | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | (No play-of-colour)                                                                                     | Common Opal                                                             | Impregnated with plastic or<br>resin (rarely)                                                   | I/SC                       | Unstable                                         | 6.1.<br>6.2.b, c, d, e, j &<br>k         | Many                        | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | White, porcelain-like                                                                                   | Cacholong Opal                                                          | No treatment (commonly)                                                                         | N/SC                       | N/A                                              | 6.1.<br>6.2.b, c, d, e & j               | Few                         | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | White, porcelain-like                                                                                   | Cacholong Opal                                                          | Impregnated with plastic or<br>resin (rarely)                                                   | I/SC                       | Unstable                                         | 6.1.<br>6.2.b, c, d, e, j &<br>k         | Few                         | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |
|                    | Orange to Red                                                                                           | Fire Opal                                                               | No treatment (commonly)                                                                         | N/SC                       | N/A                                              | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a> |

The Gemstone Blue Book

| Nomenclature       |                                             |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                             |
|--------------------|---------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                              | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                    |
|                    | Green                                       | Prase Opal, or Green Opal                                               | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a>                                                                                            |
|                    | Blue to bluish green                        | Common Opal                                                             | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e, f & j            | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a>                                                                                            |
|                    | Blue to bluish green                        | Common Opal                                                             | Irradiated (rarely)                                                                             | R/SC                       | Unstable                                       | 6.1.<br>6.2.b, c, d, e, f & j            | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a>                                                                                            |
|                    | (other colours)                             | Common Opal with colour<br>prefix                                       | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | Many                        | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a>                                                                                            |
| Opal cont..        | (other colours)                             | Common Opal with colour<br>prefix                                       | Impregnated with plastic or<br>resin (rarely)                                                   | I/SC                       | Unstable                                       | 6.1.<br>6.2.b, c, d, e, j &<br>k         | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a>                                                                                            |
|                    | With green or black<br>dendritic inclusions | Moss Opal                                                               | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a>                                                                                            |
|                    | Pseudomorphous after<br>wood                | Opalised Wood, or<br>Silicified Wood                                    | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a><br><a href="https://www.mindat.org/min-9837.html">https://www.mindat.org/min-9837.html</a> |
|                    | Pseudomorphous after<br>shells              | Opalised Shell, or (animal<br>name) Shell Opal                          | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a><br><a href="https://www.mindat.org/min-9828.html">https://www.mindat.org/min-9828.html</a> |
|                    | Pseudomorphous after<br>fossils             | Opalised fossil, or (animal<br>name) Fossil Opal                        | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-3004.html">https://www.mindat.org/min-3004.html</a>                                                                                            |
| Opicalcite         |                                             | Opicalcite                                                              | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c, d, e & j               | No                          | <a href="https://www.mindat.org/min-42741.html">https://www.mindat.org/min-42741.html</a>                                                                                          |
|                    |                                             | Opicalcite                                                              | Impregnated with wax<br>(occasionally)                                                          | I/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, c, h, j &<br>k         | No                          | <a href="https://www.mindat.org/min-42741.html">https://www.mindat.org/min-42741.html</a>                                                                                          |

The Gemstone Blue Book

| Nomenclature       |                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                          |
|--------------------|----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                 |
| Ophicalcite cont.  | Connemara      |                                                                         | No treatment (Always)                                                                           | N                          | N/A                                            | -                                        | No                          | <a href="https://www.mindat.org/min-42809.html">https://www.mindat.org/min-42809.html</a>                                                                                       |
|                    | Verd Antique   | Verd Antique                                                            | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, c, d, e &<br>j         | No                          | <a href="https://www.gemdat.org/gem-42810.html">https://www.gemdat.org/gem-42810.html</a>                                                                                       |
|                    | Verd Antique   | Verd Antique                                                            | Surface near-colourless<br>waxing<br>(occasionally)                                             | W/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, c, h, j &<br>k         | No                          | <a href="https://www.gemdat.org/gem-42810.html">https://www.gemdat.org/gem-42810.html</a>                                                                                       |
| Orthoclase         |                | See Feldspar                                                            | -                                                                                               | -                          | -                                              | -                                        | -                           | <a href="https://www.mindat.org/min-3026.html">https://www.mindat.org/min-3026.html</a>                                                                                         |
| Pearl              |                | See the CIBJO Pearl Book                                                | -                                                                                               | -                          | -                                              | -                                        | -                           | <a href="http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Pearl-Book.pdf">http://www.cibjo.org/wp-content/uploads/2020/04/20-12-22-Official-Pearl-Book.pdf</a> |
| Painite            |                | Painite                                                                 | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-3063.html">https://www.mindat.org/min-3063.html</a>                                                                                         |
| Pectolite          |                | Larimar                                                                 | No treatment (commonly)                                                                         | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-29025.html">https://www.mindat.org/min-29025.html</a>                                                                                       |
| Petalite           |                | Petalite                                                                | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-3171.html">https://www.mindat.org/min-3171.html</a>                                                                                         |
| Pezzottaite        |                | Pezzottaite                                                             | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-25652.html">https://www.mindat.org/min-25652.html</a>                                                                                       |
|                    |                | Pezzottaite Cat's eye                                                   | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-25652.html">https://www.mindat.org/min-25652.html</a>                                                                                       |
| Phenakite          |                | Phenakite                                                               | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3188.html">https://www.mindat.org/min-3188.html</a>                                                                                         |
| Phenakite          |                | Phenakite                                                               | Irradiated to produce brown<br>(occasionally)                                                   | R/SC                       | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3188.html">https://www.mindat.org/min-3188.html</a>                                                                                         |

The Gemstone Blue Book

| Nomenclature                   |                              |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                  |
|--------------------------------|------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|
| Material / Species             | Variety / type               | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                         |
| Phosphophyllite                |                              | Phosphophyllite                                                         | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-3181.html">https://www.mindat.org/min-3181.html</a> |
| Pollucite                      |                              | Pollucite                                                               | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-3255.html">https://www.mindat.org/min-3255.html</a> |
| Prehnite                       |                              | Prehnite                                                                | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3277.html">https://www.mindat.org/min-3277.html</a> |
| Purpurite                      |                              | Purpurite                                                               | No treatment (Always)                                                                           | N                          | N/A                                            | N/A                                      | No                          | <a href="https://www.mindat.org/min-3311.html">https://www.mindat.org/min-3311.html</a> |
| Pyrite                         |                              | Pyrite                                                                  | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3314.html">https://www.mindat.org/min-3314.html</a> |
| Pyrope                         |                              | See Garnet                                                              | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-3321.html">https://www.mindat.org/min-3321.html</a> |
| Pyrophyllite                   |                              | Pyrophyllite                                                            | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a & j                        | No                          | <a href="https://www.mindat.org/min-3323.html">https://www.mindat.org/min-3323.html</a> |
| Quartz (macro-<br>crystalline) |                              |                                                                         | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-3337.html">https://www.mindat.org/min-3337.html</a> |
|                                | Amethyst                     | Amethyst                                                                | No treatment (Commonly)                                                                         | N/SC                       | Colour is unstable<br>in some stones           | 6.1.<br>6.2.f                            | Many                        | <a href="https://www.mindat.org/min-198.html">https://www.mindat.org/min-198.html</a>   |
|                                | Amethyst                     | Amethyst                                                                | Heated (occasionally)                                                                           | H                          | Stable                                         | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-198.html">https://www.mindat.org/min-198.html</a>   |
|                                | Amethyst                     | Amethyst                                                                | Near colourless oils and<br>wax in fissures<br>(occasionally)                                   | O/SC                       | Unstable                                       | 6.1.<br>6.2.j, k                         | No                          | <a href="https://www.mindat.org/min-198.html">https://www.mindat.org/min-198.html</a>   |
|                                | Amethyst                     | Amethyst                                                                | Resins or other polymers in<br>fissures (Rarely)                                                | RES/SC                     | Unstable                                       | 6.1.<br>6.2.j, k                         | No                          | <a href="https://www.mindat.org/min-198.html">https://www.mindat.org/min-198.html</a>   |
|                                | Amethyst-Citrine<br>bicolour | Ametrine                                                                | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.                                     | Some                        | <a href="https://www.mindat.org/min-7606.html">https://www.mindat.org/min-7606.html</a> |

The Gemstone Blue Book

| Nomenclature                         |                              |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                    |
|--------------------------------------|------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------|
| Material / Species                   | Variety / type               | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                           |
|                                      | Amethyst-Citrine<br>bicolour | Ametrine                                                                | Heated Citrine, (rarely)                                                                        | H                          | Stable                                         | 6.1.                                     | Rare                        | <a href="https://www.mindat.org/min-7606.html">https://www.mindat.org/min-7606.html</a>   |
| Quartz (macro-<br>crystalline) cont. | Amethyst-Milky Quartz        | Amethyst-Milky Quartz                                                   | No treatment (Almost<br>always)                                                                 | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-198.html">https://www.mindat.org/min-198.html</a>     |
|                                      | Smoky Quartz                 | Smoky Quartz, or<br>Cairngorm, or Brown<br>Quartz                       | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3689.html">https://www.mindat.org/min-3689.html</a>   |
|                                      | Smoky Quartz                 | Smoky Quartz, or<br>Cairngorm, or Brown<br>Quartz                       | Irradiated (commonly)                                                                           | R                          | Stable                                         | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-3689.html">https://www.mindat.org/min-3689.html</a>   |
|                                      | (dark brown to black)        | Morion                                                                  | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | Some                        | <a href="https://www.mindat.org/min-6270.html">https://www.mindat.org/min-6270.html</a>   |
|                                      | (dark brown to black)        | Morion                                                                  | Irradiated (commonly)                                                                           | R                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-6270.html">https://www.mindat.org/min-6270.html</a>   |
|                                      | Citrine                      | Citrine, or Yellow Quartz                                               | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-1054.html">https://www.mindat.org/min-1054.html</a>   |
|                                      | Citrine                      | Citrine, or Yellow Quartz                                               | Heated (almost always)                                                                          | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1054.html">https://www.mindat.org/min-1054.html</a>   |
|                                      | Prasiolite                   | Prasiolite, or Green Quartz                                             | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-40112.html">https://www.mindat.org/min-40112.html</a> |
|                                      | Prasiolite                   | Prasiolite, or Green Quartz                                             | Heated (commonly)                                                                               | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-40112.html">https://www.mindat.org/min-40112.html</a> |
|                                      | (other colours)              | Quartz with colour prefix                                               | Irradiated (commonly)                                                                           | R/SC                       | Variable                                       | 6.1.<br>6.2. f                           | Some                        | <a href="https://www.mindat.org/min-3337.html">https://www.mindat.org/min-3337.html</a>   |
|                                      | Rock Crystal                 | Rock Crystal                                                            | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-6128.html">https://www.mindat.org/min-6128.html</a>   |
|                                      | Rose Quartz                  | Rose Quartz                                                             | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | Some                        | <a href="https://www.mindat.org/min-3456.html">https://www.mindat.org/min-3456.html</a>   |

The Gemstone Blue Book

| Nomenclature                            |                                                              |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                           |
|-----------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species                      | Variety / type                                               | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                  |
| Quartz (macro-<br>crystalline) cont..   | Aventurine Quartz                                            | Aventurine Quartz                                                       | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-436.html">https://www.mindat.org/min-436.html</a>                                                                                                            |
|                                         | Blue Quartz (colour due<br>to inclusions of<br>dumortierite) | Blue Quartz, or<br>Dumortierite Quartz                                  | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | Many                        | <a href="https://www.mindat.org/min-3337.html">https://www.mindat.org/min-3337.html</a>                                                                                                          |
|                                         | Iris Quartz                                                  | Iris Quartz                                                             | No treatment (Occasionally)                                                                     | N                          | N/A                                            | 6.1.                                     | Some                        | <a href="https://www.mindat.org/min-42133.html">https://www.mindat.org/min-42133.html</a>                                                                                                        |
|                                         | Iris Quartz                                                  | Iris Quartz                                                             | Heated and quenched<br>(occasionally)                                                           | H/SC                       | Stable                                         | 6.1.<br>6.2.j                            | Some                        | <a href="https://www.mindat.org/min-42133.html">https://www.mindat.org/min-42133.html</a>                                                                                                        |
|                                         | Iris Quartz                                                  | Iris Quartz                                                             | Dyed<br>(commonly)                                                                              | D/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-42133.html">https://www.mindat.org/min-42133.html</a>                                                                                                        |
|                                         | Quartzite                                                    | Quartzite                                                               | No treatment (Occasionally)                                                                     | N/SC                       | N/A                                            | 6.1.<br>6.2.c                            | No                          | <a href="https://www.mindat.org/min-51087.html">https://www.mindat.org/min-51087.html</a>                                                                                                        |
|                                         | Quartzite                                                    | Quartzite                                                               | Dyed<br>(commonly)                                                                              | D/SC                       | Unstable                                       | 6.1.<br>6.2.c, j & k                     | No                          | <a href="https://www.mindat.org/min-51087.html">https://www.mindat.org/min-51087.html</a>                                                                                                        |
|                                         | Quartzite                                                    | Quartzite                                                               | Impregnated with near-<br>colourless plastic or<br>hardened resins<br>(occasionally)            | I/SC                       | Unstable                                       | 6.1.6.2.j & k                            | No                          | <a href="https://www.mindat.org/min-51087.html">https://www.mindat.org/min-51087.html</a>                                                                                                        |
|                                         | Quartz Cat's-eye                                             | Quartz Cat's-eye                                                        | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/glossary/cat%27s-eye">https://www.mindat.org/glossary/cat%27s-eye</a><br><a href="https://www.mindat.org/min-3337.html">https://www.mindat.org/min-3337.html</a> |
| Quartz<br>(crypto/microcrystal<br>line) | Quartz with inclusions                                       | Rutilated Quartz,<br>Tourmalinated Quartz, etc.                         | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3485.html">https://www.mindat.org/min-3485.html</a><br><a href="https://www.mindat.org/min-26498.html">https://www.mindat.org/min-26498.html</a>             |

The Gemstone Blue Book

| Nomenclature                               |                                                                                              |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                 |
|--------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species                         | Variety / type                                                                               | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                        |
| Quartz<br>(crypto/microcrystalline) cont.. | Chalcedony or Agate:                                                                         |                                                                         | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-960.html">https://www.mindat.org/min-960.html</a><br><a href="https://www.mindat.org/min-51.html">https://www.mindat.org/min-51.html</a>           |
|                                            | Chrysoprase (green<br>colour due to inclusions<br>of nickeliferous clay)                     | Chrysoprase                                                             | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-952.html">https://www.mindat.org/min-952.html</a>                                                                                                  |
|                                            | Chrome Chalcedony<br>(green colour due to<br>chromium)                                       | Chrome Chalcedony, or<br>Mtorolite                                      | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1..                                    | No                          | <a href="https://www.mindat.org/min-39291.html">https://www.mindat.org/min-39291.html</a><br><a href="https://www.mindat.org/min-27172.html">https://www.mindat.org/min-27172.html</a> |
|                                            | Chrysocolla Chalcedony<br>(blue to blue-green<br>colour due to inclusions<br>of chrysocolla) | Chrysocolla Chalcedony                                                  | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1040.html">https://www.mindat.org/min-1040.html</a>                                                                                                |
|                                            | Cornelian                                                                                    | Cornelian, or Carnelian                                                 | No treatment (Occasionally)                                                                     | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-9333.html">https://www.mindat.org/min-9333.html</a><br><a href="https://www.mindat.org/min-9341.html">https://www.mindat.org/min-9341.html</a>     |
|                                            | Cornelian                                                                                    | Cornelian, or Carnelian                                                 | Heated (rarely)                                                                                 | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-9333.html">https://www.mindat.org/min-9333.html</a><br><a href="https://www.mindat.org/min-9341.html">https://www.mindat.org/min-9341.html</a>     |
|                                            | Cornelian                                                                                    | Cornelian, or Carnelian                                                 | Dyed (commonly)                                                                                 | D/SC                       | Stable                                         | 6.1.<br>6.2.f                            | No                          | <a href="https://www.mindat.org/min-9333.html">https://www.mindat.org/min-9333.html</a><br><a href="https://www.mindat.org/min-9341.html">https://www.mindat.org/min-9341.html</a>     |

## The Gemstone Blue Book

| Nomenclature                                   |                         |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                       |
|------------------------------------------------|-------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species                             | Variety / type          | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                              |
| Quartz<br>(crypto/microcrystal<br>line) cont.. | Sard                    | Sard                                                                    | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-7607.html">https://www.mindat.org/min-7607.html</a>                                                                                      |
|                                                | Prase                   | Prase                                                                   | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-6703.html">https://www.mindat.org/min-6703.html</a>                                                                                      |
|                                                | (other uniform colours) | Agate with colour prefix,<br>or Chalcedony with colour<br>prefix        | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-960.html">https://www.mindat.org/min-960.html</a><br><a href="https://www.mindat.org/min-51.html">https://www.mindat.org/min-51.html</a> |
|                                                | (other uniform colours) | Agate with colour prefix,<br>or Chalcedony with colour<br>prefix        | Dyed black<br>(always)                                                                          | D/SC                       | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-960.html">https://www.mindat.org/min-960.html</a><br><a href="https://www.mindat.org/min-51.html">https://www.mindat.org/min-51.html</a> |
|                                                |                         | Agate with colour prefix,<br>or Chalcedony with colour<br>prefix        | Dyed blue<br>(always)                                                                           | D/SC                       | Variable                                       | 6.1.<br>6.2.f                            | No                          | <a href="https://www.mindat.org/min-960.html">https://www.mindat.org/min-960.html</a><br><a href="https://www.mindat.org/min-51.html">https://www.mindat.org/min-51.html</a> |
|                                                |                         | Agate with colour prefix,<br>or Chalcedony with colour<br>prefix        | Dyed green<br>(always)                                                                          | D/SC                       | Variable                                       | 6.1.<br>6.2.f                            | No                          | <a href="https://www.mindat.org/min-960.html">https://www.mindat.org/min-960.html</a><br><a href="https://www.mindat.org/min-51.html">https://www.mindat.org/min-51.html</a> |
|                                                | (other uniform colours) | Agate with colour prefix,<br>or Chalcedony with colour<br>prefix        | Dyed (commonly)                                                                                 | D/SC                       | Unstable                                       | 6.1.<br>6.2.f                            | No                          | <a href="https://www.mindat.org/min-960.html">https://www.mindat.org/min-960.html</a><br><a href="https://www.mindat.org/min-51.html">https://www.mindat.org/min-51.html</a> |
|                                                | Banded Agate            | Banded Agate                                                            | No treatment (rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-51.html">https://www.mindat.org/min-51.html</a>                                                                                          |
|                                                | Banded Agate            | Banded Agate                                                            | Dyed (commonly)                                                                                 | D/SC                       | Fairly stable                                  | 6.1.<br>6.2.f & k                        | No                          | <a href="https://www.mindat.org/min-51.html">https://www.mindat.org/min-51.html</a>                                                                                          |

## The Gemstone Blue Book

| Nomenclature                              |                                           |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                             |
|-------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species                        | Variety / type                            | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                    |
| Quartz<br>(crypto/microcrystalline) cont. | Fire Agate                                | Fire Agate                                                              | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-7601.html">https://www.mindat.org/min-7601.html</a>                                                                                            |
|                                           | Iris Agate                                | Iris Agate                                                              | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-7610.html">https://www.mindat.org/min-7610.html</a>                                                                                            |
|                                           | Moss Agate                                | Moss Agate, or Dendritic Agate                                          | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-2791.html">https://www.mindat.org/min-2791.html</a>                                                                                            |
|                                           | Onyx (straight layers of black and white) | Onyx                                                                    | Dyed (commonly)                                                                                 | D/SC                       | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-2999.html">https://www.mindat.org/min-2999.html</a>                                                                                            |
|                                           | Onyx (black)                              | Onyx                                                                    | Dyed (always)                                                                                   | D/SC                       | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-2999.html">https://www.mindat.org/min-2999.html</a>                                                                                            |
|                                           | Sardonyx                                  | Sardonyx                                                                | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-7604.html">https://www.mindat.org/min-7604.html</a>                                                                                            |
|                                           | Jasper:                                   |                                                                         | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-2082.html">https://www.mindat.org/min-2082.html</a>                                                                                            |
|                                           | Heliotrope                                | Heliotrope, or Bloodstone                                               | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1851.html">https://www.mindat.org/min-1851.html</a><br><a href="https://www.mindat.org/min-7616.html">https://www.mindat.org/min-7616.html</a> |
|                                           | Multicoloured Jasper                      | Multicoloured Jasper                                                    | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-2082.html">https://www.mindat.org/min-2082.html</a>                                                                                            |
|                                           | Orbicular Jasper                          | Orbicular Jasper                                                        | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-27171.html">https://www.mindat.org/min-27171.html</a>                                                                                          |
|                                           | Jasper, other colours                     | Jasper with colour prefix                                               | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-2082.html">https://www.mindat.org/min-2082.html</a>                                                                                            |
|                                           | Jasper, other colours                     | Jasper with colour prefix                                               | Dyed (commonly)                                                                                 | D/SC                       | Unstable                                       | 6.1.<br>6.2.f & k                        | No                          | <a href="https://www.mindat.org/min-2082.html">https://www.mindat.org/min-2082.html</a>                                                                                            |

## The Gemstone Blue Book

| Nomenclature                              |                               |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                    |
|-------------------------------------------|-------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------|
| Material / Species                        | Variety / type                | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                           |
| Quartz<br>(crypto/microcrystalline) cont. | Falcon's-eye                  | Falcon's-eye, or Hawk's-eye                                             | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-38866.html">https://www.mindat.org/min-38866.html</a> |
| .                                         | Tiger's-eye                   | Tiger's-eye                                                             | No treatment (Occasionally)                                                                     | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3960.html">https://www.mindat.org/min-3960.html</a>   |
|                                           | Tiger's-eye                   | Tiger's-eye                                                             | Heated<br>(commonly)                                                                            | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3960.html">https://www.mindat.org/min-3960.html</a>   |
|                                           | Tiger's-eye                   | Tiger's-eye                                                             | Dyed<br>(commonly)                                                                              | D/SC                       | Unstable                                       | 6.1.<br>6.2.f, j & k                     | No                          | <a href="https://www.mindat.org/min-3960.html">https://www.mindat.org/min-3960.html</a>   |
|                                           | Pseudomorphous after<br>Wood  | Petrified Wood, or<br>Silicified Wood                                   | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-8018.html">https://www.mindat.org/min-8018.html</a>   |
| Rhodizite                                 | Londonite-Rhodizite<br>series | Rhodizite                                                               | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-3405.html">https://www.mindat.org/min-3405.html</a>   |
| Rhodochrosite                             |                               | Rhodochrosite                                                           | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, h & j                  | No                          | <a href="https://www.mindat.org/min-3406.html">https://www.mindat.org/min-3406.html</a>   |
| Rhodonite                                 |                               | Rhodonite                                                               | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a & b                        | No                          | <a href="https://www.mindat.org/min-3407.html">https://www.mindat.org/min-3407.html</a>   |
| Sapphirine                                |                               | Sapphirine                                                              | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-3531.html">https://www.mindat.org/min-3531.html</a>   |
| Saussurite                                |                               | Saussurite                                                              | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-26894.html">https://www.mindat.org/min-26894.html</a> |
| Scapolite                                 |                               | Scapolite                                                               | No treatment (Commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-8778.html">https://www.mindat.org/min-8778.html</a>   |
|                                           |                               | Scapolite                                                               | Irradiated to purple and<br>violet (unknown)                                                    | R/SC                       | Unstable                                       | 6.1.<br>6.2.f                            | No                          | <a href="https://www.mindat.org/min-8778.html">https://www.mindat.org/min-8778.html</a>   |

The Gemstone Blue Book

| Nomenclature                                                       |                |                                                                         | Treatment                                                                                       |                                                |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic              | Informative References                                                                    |
|--------------------------------------------------------------------|----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------|
| Material / Species                                                 | Variety / type | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup>                     | Stability -<br>Variable Stable, or<br>Unstable |                                          |                                          |                                                                                           |
| Scheelite                                                          |                | Scheelite                                                               | No treatment (Always)                                                                           | N                                              | N/A                                            |                                          | Yes                                      | <a href="https://www.mindat.org/min-3560.html">https://www.mindat.org/min-3560.html</a>   |
| Serendibite                                                        |                | Serendibite                                                             | No treatment (Always)                                                                           | N                                              | N/A                                            |                                          | No                                       | <a href="https://www.mindat.org/min-3623.html">https://www.mindat.org/min-3623.html</a>   |
| Serpentine (group<br>of) Antigorite,<br>Chrysotil and<br>Lizardite |                | Serpentine                                                              | No treatment (Commonly)                                                                         | N                                              | N/A                                            | 6.1.<br>6.2.a, h & j                     | No                                       | <a href="https://www.mindat.org/min-7484.html">https://www.mindat.org/min-7484.html</a>   |
|                                                                    |                |                                                                         | Surface near-colourless<br>waxing (commonly)                                                    | W/SC                                           | Unstable                                       | 6.1.<br>6.2.a, h, j & k                  | No                                       | <a href="https://www.mindat.org/min-7484.html">https://www.mindat.org/min-7484.html</a>   |
|                                                                    |                |                                                                         | Dyed (commonly)                                                                                 | D/SC                                           | Unstable                                       | 6.1.<br>6.2.a, f, h, j & k               | No                                       | <a href="https://www.mindat.org/min-7484.html">https://www.mindat.org/min-7484.html</a>   |
|                                                                    |                | Verd Antique                                                            | See Serpentine (group of)<br>above                                                              | See Serpe-<br>ntine<br>(grou-p<br>of)<br>above | See Serpentine<br>(group of) above             | See Serpentine<br>(group of) above       | See<br>Serpentine<br>(group of)<br>above | <a href="https://www.mindat.org/min-42810.html">https://www.mindat.org/min-42810.html</a> |
| Antigorite                                                         |                | Antigorite                                                              | See Serpentine (group of)<br>above                                                              | See Serpe-<br>ntine<br>(grou-p<br>of)<br>above | See Serpentine<br>(group of) above             | See Serpentine<br>(group of) above       | See<br>Serpentine<br>(group of)<br>above | <a href="https://www.mindat.org/min-260.html">https://www.mindat.org/min-260.html</a>     |

## The Gemstone Blue Book

| Nomenclature       |                                   |                                                                         | Treatment                                                                                       |                                                |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic              | Informative References                                                                    |
|--------------------|-----------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                    | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup>                     | Stability -<br>Variable Stable, or<br>Unstable |                                          |                                          |                                                                                           |
|                    |                                   | Williamsite                                                             | See Serpentine (group of)<br>above                                                              | See Serpe-<br>ntine<br>(grou-p<br>of)<br>above | See Serpentine<br>(group of) above             | 6.1.<br>6.2.a, h & j                     | See<br>Serpentine<br>(group of)<br>above | <a href="https://www.mindat.org/min-27232.html">https://www.mindat.org/min-27232.html</a> |
|                    | Bowenite (green or<br>blue green) | Bowenite                                                                | See Serpentine (group of)<br>above                                                              | See Serpe-<br>ntine<br>(grou-p<br>of)<br>above | See Serpentine<br>(group of) above             | See Serpentine<br>(group of) above       | See<br>Serpentine<br>(group of)<br>above | <a href="https://www.mindat.org/min-744.html">https://www.mindat.org/min-744.html</a>     |
| Chrysotile         |                                   | Chrysotile                                                              | See Serpentine (group of)<br>above                                                              | See Serpe-<br>ntine<br>(grou-p<br>of)<br>above | See Serpentine<br>(group of) above             | See Serpentine<br>(group of) above       | See<br>Serpentine<br>(group of)<br>above | <a href="https://www.gemdat.org/gem-975.html">https://www.gemdat.org/gem-975.html</a>     |
| Lizardite          |                                   | Lizardite                                                               | See Serpentine (group of)<br>above                                                              | See Serpe-<br>ntine<br>(grou-p<br>of)<br>above | See Serpentine<br>(group of) above             | See Serpentine<br>(group of) above       | See<br>Serpentine<br>(group of)<br>above | <a href="https://www.mindat.org/min-2425.html">https://www.mindat.org/min-2425.html</a>   |
| Shell              |                                   | Shell, or Shell with name<br>of animal                                  | No treatment (Occasionally)                                                                     | N/SC                                           | N/A                                            | 6.1.<br>6.2.a, c, f, h, & j              | No                                       | <a href="https://www.mindat.org/min-42812.html">https://www.mindat.org/min-42812.html</a> |
| Shell cont.        |                                   | Shell, or Shell with name<br>of animal                                  | Dyed<br>(commonly)                                                                              | D/SC                                           | Unstable                                       | 6.1.<br>6.2.a, c, f, h, j & k            | No                                       | <a href="https://www.mindat.org/min-42812.html">https://www.mindat.org/min-42812.html</a> |

## The Gemstone Blue Book

| Nomenclature       |                   |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                               |
|--------------------|-------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type    | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                      |
|                    | Mother of Pearl   | Mother of Pearl                                                         | No treatment (Occasionally)                                                                     | N/SC                       | N/A                                            | 6.1.<br>6.2.a, c, h & j                  | No                          | <a href="https://www.mindat.org/min-42812.html">https://www.mindat.org/min-42812.html</a>                                                                                            |
|                    | Mother of Pearl   | Mother of Pearl                                                         | Dyed<br>(commonly)                                                                              | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, c, f, h j & k             | No                          | <a href="https://www.mindat.org/min-42812.html">https://www.mindat.org/min-42812.html</a>                                                                                            |
| Sillimanite        |                   | Sillimanite                                                             | No treatment (almost<br>always)                                                                 | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-3662.html">https://www.mindat.org/min-3662.html</a>                                                                                              |
|                    |                   | Sillimanite                                                             | Dyed (rarely)                                                                                   | D/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-3662.html">https://www.mindat.org/min-3662.html</a>                                                                                              |
|                    | (with chatoyancy) | Sillimanite Cat's-eye                                                   | No treatment (almost<br>always)                                                                 | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.gemdat.org/gem-3662.html">https://www.gemdat.org/gem-3662.html</a>                                                                                              |
| Sinhalite          |                   | Sinhalite                                                               | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-3672.html">https://www.mindat.org/min-3672.html</a>                                                                                              |
| Smithsonite        |                   | Smithsonite                                                             | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, h j                    | No                          | <a href="https://www.mindat.org/min-3688.html">https://www.mindat.org/min-3688.html</a>                                                                                              |
|                    | (blue to green)   | Smithsonite, or Bonamite                                                | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, h & j                  | No                          | <a href="https://www.mindat.org/min-3688.html">https://www.mindat.org/min-3688.html</a><br><a href="https://www.mindat.org/min-30508.html">https://www.mindat.org/min-30508.html</a> |
| Sodalite           |                   | Sodalite                                                                | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-3701.html">https://www.mindat.org/min-3701.html</a>                                                                                              |
|                    |                   | Sodalite                                                                | Dyed<br>(rarely)                                                                                | D/SC                       | Unstable                                       | 6.1.<br>6.2.b, f, j & k                  | No                          | <a href="https://www.mindat.org/min-3701.html">https://www.mindat.org/min-3701.html</a>                                                                                              |
| Spessartine        |                   | See garnet                                                              | –                                                                                               |                            | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-3725.html">https://www.mindat.org/min-3725.html</a>                                                                                              |
| Sphalerite         |                   | Sphalerite, or Zinc Blende                                              | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.a & j                        | No                          | <a href="https://www.mindat.org/min-3727.html">https://www.mindat.org/min-3727.html</a>                                                                                              |

The Gemstone Blue Book

| Nomenclature       |                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                             |
|--------------------|----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                    |
| Sphene             |                | See Titanite                                                            | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-6440.html">https://www.mindat.org/min-6440.html</a><br><a href="https://www.mindat.org/min-3977.html">https://www.mindat.org/min-3977.html</a> |
| Spinel (group of)  |                |                                                                         | –                                                                                               | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-29156.html">https://www.mindat.org/min-29156.html</a>                                                                                          |
| Spinel             |                | Spinel (with colour prefix)                                             | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | Yes                         | <a href="https://www.mindat.org/min-3729.html">https://www.mindat.org/min-3729.html</a>                                                                                            |
|                    |                | Spinel (with colour prefix)                                             | Heated (occasionally)                                                                           | H                          | Stable                                         | 6.1.                                     | Yes                         | <a href="https://www.mindat.org/min-3729.html">https://www.mindat.org/min-3729.html</a>                                                                                            |
|                    | Cobalt Spinel  | Cobalt Spinel                                                           | No treatment (rarely)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-3729.html">https://www.mindat.org/min-3729.html</a>                                                                                            |
|                    | Gahnospinel    | Gahnospinel                                                             | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1633.html">https://www.mindat.org/min-1633.html</a>                                                                                            |
|                    | Pleonaste      | Pleonaste, or Black Spinel                                              | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-6684.html">https://www.mindat.org/min-6684.html</a>                                                                                            |
| Gahnite            |                | Gahnite                                                                 | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1632.html">https://www.mindat.org/min-1632.html</a>                                                                                            |
| Spodumene          | Kunzite        | Kunzite                                                                 | No treatment (Rarely)                                                                           | N/SC                       | Unstable                                       | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-3733.html">https://www.mindat.org/min-3733.html</a><br><a href="https://www.mindat.org/min-2289.html">https://www.mindat.org/min-2289.html</a> |
|                    | Kunzite        | Kunzite                                                                 | Heated,<br>(commonly)                                                                           | H/SC                       | Unstable                                       | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-3733.html">https://www.mindat.org/min-3733.html</a><br><a href="https://www.mindat.org/min-2289.html">https://www.mindat.org/min-2289.html</a> |

The Gemstone Blue Book

| Nomenclature       |                                             |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                        |
|--------------------|---------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                              | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                               |
|                    | Kunzite                                     | Kunzite                                                                 | Irradiated (commonly)                                                                           | R/SC                       | Unstable                                       | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-3733.html">https://www.mindat.org/min-3733.html</a><br><a href="https://www.mindat.org/min-2289.html">https://www.mindat.org/min-2289.html</a>                                                                                            |
| Spodumene cont.    | Hiddenite (green colour<br>due to chromium) | Hiddenite                                                               | No treatment (Always)                                                                           | N/SC                       | Unstable                                       | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-3733.html">https://www.mindat.org/min-3733.html</a><br><a href="https://www.mindat.org/min-7740.html">https://www.mindat.org/min-7740.html</a>                                                                                            |
|                    | (other colours)                             | Spodumene with colour<br>prefix                                         | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-3733.html">https://www.mindat.org/min-3733.html</a>                                                                                                                                                                                       |
|                    | (other colours)                             | Spodumene with colour<br>prefix                                         | Green produced by<br>irradiation (occasionally)                                                 | R/SC                       | Unstable                                       | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-3733.html">https://www.mindat.org/min-3733.html</a>                                                                                                                                                                                       |
| Sugilite           |                                             | Sugilite                                                                | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-3822.html">https://www.mindat.org/min-3822.html</a>                                                                                                                                                                                       |
| Taaffeite          |                                             | Taaffeite                                                               | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-27242.html">https://www.mindat.org/min-27242.html</a>                                                                                                                                                                                     |
| Talc               | Steatite                                    | Steatite, or Soapstone                                                  | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.a, b, c & j                  | No                          | <a href="https://www.mindat.org/min-3875.html">https://www.mindat.org/min-3875.html</a><br><a href="https://www.mindat.org/min-3755.html">https://www.mindat.org/min-3755.html</a><br><a href="https://www.mindat.org/min-9348.html">https://www.mindat.org/min-9348.html</a> |
|                    | Steatite                                    | Steatite, or Soapstone                                                  | Dyed<br>(rarely)                                                                                | D/SC                       | Unstable                                       | 6.1.<br>6.2.a, b, c, j & k               | No                          | <a href="https://www.mindat.org/min-3875.html">https://www.mindat.org/min-3875.html</a><br><a href="https://www.mindat.org/min-3755.html">https://www.mindat.org/min-3755.html</a><br><a href="https://www.mindat.org/min-9348.html">https://www.mindat.org/min-9348.html</a> |

The Gemstone Blue Book

| Nomenclature       |                |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                 |
|--------------------|----------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                        |
| Tantalite-(Mn)     |                | Manganotantalite                                                        | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-2522.html">https://www.mindat.org/min-2522.html</a>                                                                                                                                                |
| Tektite            |                | Tektite                                                                 | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-10859.html">https://www.mindat.org/min-10859.html</a>                                                                                                                                              |
|                    | Moldavite      | Moldavite                                                               | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-10860.html">https://www.mindat.org/min-10860.html</a>                                                                                                                                              |
| Thomsonite         |                | Thomsonite                                                              | No treatment (Always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-28896.html">https://www.mindat.org/min-28896.html</a>                                                                                                                                              |
| Titanite           |                | Titanite, or Sphene                                                     | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-3977.html">https://www.mindat.org/min-3977.html</a><br><a href="https://www.mindat.org/min-6440.html">https://www.mindat.org/min-6440.html</a>                                                     |
| Topaz              |                | Topaz                                                                   | No treatment (Rarely)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-3996.html">https://www.mindat.org/min-3996.html</a>                                                                                                                                                |
|                    |                | Topaz                                                                   | Heated to produce pink<br>(commonly)                                                            | H/SC                       | Stable                                         | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-3996.html">https://www.mindat.org/min-3996.html</a>                                                                                                                                                |
|                    |                | Topaz                                                                   | Irradiated and heated to<br>produce blue (almost<br>always)                                     | R/SC                       | Stable                                         | 6.1.6.2.b & j                            | No                          | <a href="https://www.mindat.org/min-3996.html">https://www.mindat.org/min-3996.html</a><br><a href="https://www.gia.edu/doc/Irradiated-Topaz-and-Radioactivity.pdf">https://www.gia.edu/doc/Irradiated-Topaz-and-Radioactivity.pdf</a> |
|                    |                | Topaz                                                                   | Irradiated to yellow and<br>orange (occasionally)                                               | R/SC                       | Unstable                                       | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-3996.html">https://www.mindat.org/min-3996.html</a><br><a href="https://www.gia.edu/doc/Irradiated-Topaz-and-Radioactivity.pdf">https://www.gia.edu/doc/Irradiated-Topaz-and-Radioactivity.pdf</a> |

## The Gemstone Blue Book

| Nomenclature       |                        |                                                                         | Treatment                                                                                              |                            |                                                     | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                                                                                             |
|--------------------|------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type         | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.)        | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable      |                                          |                             |                                                                                                                                                                                                                                                                                                                                                                    |
|                    |                        | Topaz                                                                   | Irradiated to produce green<br>(commonly)                                                              | R/SC                       | Unstable                                            | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-3996.html">https://www.mindat.org/min-3996.html</a><br><br><a href="https://www.gia.edu/doc/Irradiated-Topaz-and-Radioactivity.pdf">https://www.gia.edu/doc/Irradiated-Topaz-and-Radioactivity.pdf</a>                                                                                                                         |
| Topaz cont.        |                        | Topaz                                                                   | Diffused to produce green<br>(occasionally)                                                            | U/SC                       | Stable (without re-<br>cutting or re-<br>polishing) | 6.1.<br>6.2.b, j & m                     | No                          | <a href="https://www.mindat.org/min-3996.html">https://www.mindat.org/min-3996.html</a><br><br><a href="https://www.gia.edu/doc/Summer-2008-Gems-Gemology-Coloring-Topaz-Coating-Diffusion-Processes-X-Ray-Photoemission-Study.pdf">https://www.gia.edu/doc/Summer-2008-Gems-Gemology-Coloring-Topaz-Coating-Diffusion-Processes-X-Ray-Photoemission-Study.pdf</a> |
|                    |                        | Topaz                                                                   | Coated with very thin layers<br>to provide various colours<br>and to add special effects<br>(commonly) | C/SC                       | Unstable                                            | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-3996.html">https://www.mindat.org/min-3996.html</a><br><br><a href="https://www.gia.edu/doc/Summer-2008-Gems-Gemology-Coloring-Topaz-Coating-Diffusion-Processes-X-Ray-Photoemission-Study.pdf">https://www.gia.edu/doc/Summer-2008-Gems-Gemology-Coloring-Topaz-Coating-Diffusion-Processes-X-Ray-Photoemission-Study.pdf</a> |
| Tortoiseshell      |                        | Tortoiseshell                                                           | No treatment (commonly)                                                                                | N/SC                       | N/A                                                 | 6.1.<br>6.2.a, & c                       | No                          | <a href="https://www.gemdat.org/gem-42814.html">https://www.gemdat.org/gem-42814.html</a>                                                                                                                                                                                                                                                                          |
| Tourmaline Group   | Achroite               | Colourless Tourmaline, or<br>Achroite                                   | No treatment (Always)                                                                                  | N                          | N/A                                                 | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a>                                                                                                                                                                                                                                                                            |
|                    | Canary tourmaline      | Yellow tourmaline, or<br>Canary tourmaline                              | Heated to produce yellow<br>(almost always)                                                            | H                          | Stable                                              | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-1364.html">https://www.mindat.org/min-1364.html</a>                                                                                                                                                                                                                                                                            |
|                    | Rubellite/ Pink to red | Pink Tourmaline, or Red<br>Tourmaline, or Rubellite                     | No treatment (Rarely)                                                                                  | N                          | N/A                                                 | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3472.html">https://www.mindat.org/min-3472.html</a>                                                                                                                                                                                                                                                                            |
|                    | Rubellite/ Pink to red | Pink Tourmaline, or Red<br>Tourmaline, or Rubellite                     | Heated<br>(occasionally)                                                                               | H                          | Stable                                              | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3472.html">https://www.mindat.org/min-3472.html</a>                                                                                                                                                                                                                                                                            |

The Gemstone Blue Book

| Nomenclature       |                                          |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                             |
|--------------------|------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                           | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                    |
| Tourmaline cont.   | Rubellite/ Pink to red                   | Pink Tourmaline, or Red<br>Tourmaline, or Rubellite                     | Irradiated<br>(commonly)                                                                        | R                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-3472.html">https://www.mindat.org/min-3472.html</a>                                                                                            |
|                    | Rubellite/ Pink to red                   | Pink Tourmaline, or Red<br>Tourmaline, or Rubellite                     | Near-colourless oils and<br>wax in fissures<br>(occasionally)                                   | O/SC                       | Unstable                                       | 6.1.<br>6.2. j & k                       | No                          | <a href="https://www.mindat.org/min-3472.html">https://www.mindat.org/min-3472.html</a>                                                                                            |
|                    | Rubellite/ Pink to red                   | Pink Tourmaline, or Red<br>Tourmaline, or Rubellite                     | Resins or other polymers in<br>fissures (commonly)                                              | RES/SC                     | Unstable                                       | 6.1.<br>6.2. j & k                       | No                          | <a href="https://www.mindat.org/min-3472.html">https://www.mindat.org/min-3472.html</a>                                                                                            |
|                    | Green due to chromium<br>and/or vanadium | Chrome Tourmaline                                                       | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-9904.html">https://www.mindat.org/min-9904.html</a>                                                                                            |
|                    | Verdelite                                | Green Tourmaline,<br>verdelith or verdelite                             | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-4169.html">https://www.mindat.org/min-4169.html</a> |
|                    | Verdelite                                | Green Tourmaline,<br>verdelith or verdelite                             | Heated<br>(commonly)                                                                            | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-4169.html">https://www.mindat.org/min-4169.html</a> |
|                    | Verdelite                                | Green Tourmaline,<br>verdelith or verdelite                             | Near-colourless oils and<br>wax in fissures<br>(rarely)                                         | O/SC                       | Unstable                                       | 6.1.<br>6.2. j & k                       | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-4169.html">https://www.mindat.org/min-4169.html</a> |
|                    | Verdelite                                | Green Tourmaline,<br>verdelith or verdelite                             | Resins or other polymers in<br>fissures (rarely)                                                | RES/SC                     | Unstable                                       | 6.1.<br>6.2. j & k                       | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-4169.html">https://www.mindat.org/min-4169.html</a> |
| Tourmaline cont..  | Verdelite                                | Green Tourmaline,<br>verdelith or verdelite                             | Cavities and fractures filled<br>with near-colourless<br>hardened substances<br>(rarely)        | F/SC                       | Unstable                                       | 6.1.<br>6.2. j & k                       | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-4169.html">https://www.mindat.org/min-4169.html</a> |

The Gemstone Blue Book

| Nomenclature              |                                                        |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------|--------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species        | Variety / type                                         | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                                                                                                                          |
|                           | Paraiba Tourmaline<br>(Green to blue due to<br>copper) | Paraiba Tourmaline                                                      | No treatment (Rarely)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-29238.html">https://www.mindat.org/min-29238.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe92a90e2e72555d61eec3/1543410345434/LMHC+Information+Sheet_6_V7_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe92a90e2e72555d61eec3/1543410345434/LMHC+Information+Sheet_6_V7_2012.pdf</a> |
|                           | Paraiba Tourmaline<br>(Green to blue due to<br>copper) | Paraiba Tourmaline                                                      | Heated<br>(commonly)                                                                            | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-29238.html">https://www.mindat.org/min-29238.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe92a90e2e72555d61eec3/1543410345434/LMHC+Information+Sheet_6_V7_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe92a90e2e72555d61eec3/1543410345434/LMHC+Information+Sheet_6_V7_2012.pdf</a> |
|                           | Paraiba Tourmaline<br>(Green to blue due to<br>copper) | Paraiba Tourmaline                                                      | Filling of fissures with near-<br>colourless oils and wax<br>(commonly)                         | O/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-29238.html">https://www.mindat.org/min-29238.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe92a90e2e72555d61eec3/1543410345434/LMHC+Information+Sheet_6_V7_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe92a90e2e72555d61eec3/1543410345434/LMHC+Information+Sheet_6_V7_2012.pdf</a> |
| Tourmaline group<br>cont. | Paraiba Tourmaline<br>(Green to blue due to<br>copper) | Paraiba Tourmaline                                                      | Resins or other polymers in<br>fissures (commonly)                                              | RES/SC                     | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-29238.html">https://www.mindat.org/min-29238.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe92a90e2e72555d61eec3/1543410345434/LMHC+Information+Sheet_6_V7_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe92a90e2e72555d61eec3/1543410345434/LMHC+Information+Sheet_6_V7_2012.pdf</a> |

The Gemstone Blue Book

| Nomenclature              |                                                        |                                                                         | Treatment                                                                                              |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------|--------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species        | Variety / type                                         | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.)        | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                                                                                                                                                                                                                                          |
|                           | Paraiba Tourmaline<br>(Green to blue due to<br>copper) | Paraiba Tourmaline                                                      | Filling of cavities and<br>fractures with near-<br>colourless hardened<br>substances<br>(occasionally) | F/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-29238.html">https://www.mindat.org/min-29238.html</a><br><br><a href="https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe92a90e2e72555d61eec3/1543410345434/LMHC+Information+Sheet_6_V7_2012.pdf">https://static1.squarespace.com/static/5bfb7e6cc8fed3bb9293bf3/t/5bfe92a90e2e72555d61eec3/1543410345434/LMHC+Information+Sheet_6_V7_2012.pdf</a> |
|                           | Indigolite or Indicolite                               | Blue Tourmaline, or<br>Indicolite                                       | No treatment (commonly)                                                                                | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-2027.html">https://www.mindat.org/min-2027.html</a>                                                                                                                                                                                                                                                                                                                  |
|                           | Indigolite or Indicolite                               | Blue Tourmaline, or<br>Indicolite                                       | Heated<br>(commonly)                                                                                   | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-2027.html">https://www.mindat.org/min-2027.html</a>                                                                                                                                                                                                                                                                                                                  |
|                           | Indigolite or Indicolite                               | Blue Tourmaline, or<br>Indicolite                                       | Near-colourless oils and<br>wax in fissures<br>(occasionally)                                          | O/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-2027.html">https://www.mindat.org/min-2027.html</a>                                                                                                                                                                                                                                                                                                                  |
|                           | Indigolite or Indicolite                               | Blue Tourmaline, or<br>Indicolite                                       | Resins or other polymers in<br>fissures (commonly)                                                     | RES/SC                     | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-2027.html">https://www.mindat.org/min-2027.html</a>                                                                                                                                                                                                                                                                                                                  |
|                           | (other colours)                                        | Tourmaline with colour<br>prefix                                        | No treatment (Occasionally)                                                                            | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a>                                                                                                                                                                                                                                                                                                                  |
|                           | (other colours)                                        | Tourmaline with colour<br>prefix                                        | Heated to produce<br>yellow/orange<br>(rarely)                                                         | H                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a>                                                                                                                                                                                                                                                                                                                  |
| Tourmaline group<br>cont. | (other colours)                                        | Tourmaline with colour<br>prefix                                        | Irradiated to improve<br>yellow/orange<br>(rarely)                                                     | R                          | Stable                                         | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a>                                                                                                                                                                                                                                                                                                                  |
|                           | (other colours)                                        | Tourmaline with colour<br>prefix                                        | Near-colourless oils and<br>wax in fissures<br>(occasionally)                                          | O/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a>                                                                                                                                                                                                                                                                                                                  |
|                           | (other colours)                                        | Tourmaline with colour<br>prefix                                        | Resins or other polymers in<br>fissures (rarely)                                                       | RES/SC                     | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a>                                                                                                                                                                                                                                                                                                                  |

## The Gemstone Blue Book

| Nomenclature              |                                                           |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                               |
|---------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species        | Variety / type                                            | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                      |
|                           | Parti-coloured:                                           | Parti-coloured, Bi-<br>coloured, or tri-coloured<br>Tourmaline          | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a>                                                                                              |
|                           | Parti-coloured:                                           | Parti-coloured, Bi-<br>coloured, or tri-coloured<br>Tourmaline          | Near-colourless oils and<br>wax in fissures (occasionally)                                      | O/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a>                                                                                              |
|                           | Parti-coloured:                                           | Parti-coloured, Bi-<br>coloured, or tri-coloured<br>Tourmaline          | Resins or other polymers in<br>fissures (rarely)                                                | RES/SC                     | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a>                                                                                              |
|                           | Watermelon<br>Tourmaline (with red<br>core and green rim) | Watermelon Tourmaline                                                   | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-10889.html">https://www.mindat.org/min-10889.html</a> |
|                           | (with red core and<br>green rim)                          | Watermelon Tourmaline                                                   | Near-colourless oils and<br>wax in fissures<br>(occasionally)                                   | O/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-10889.html">https://www.mindat.org/min-10889.html</a> |
|                           | (with red core and<br>green rim)                          | Watermelon Tourmaline                                                   | Resins or other polymers in<br>fissures (commonly) (rarely<br>KS)                               | RES/SC                     | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-10889.html">https://www.mindat.org/min-10889.html</a> |
| Tourmaline group<br>cont. | Liddicoatite                                              | Liddicoatite                                                            | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-2395.html">https://www.mindat.org/min-2395.html</a>   |
|                           | Liddicoatite                                              | Liddicoatite                                                            | Near-colourless oils and<br>wax in fissures<br>(occasionally)                                   | O/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-2395.html">https://www.mindat.org/min-2395.html</a>   |

The Gemstone Blue Book

| Nomenclature       |                      |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                               |
|--------------------|----------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type       | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                      |
|                    | Liddicoatite         | Liddicoatite                                                            | Resins or other polymers in<br>fissures (commonly)                                              | RES/SC                     | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-2395.html">https://www.mindat.org/min-2395.html</a>   |
|                    | Schorl               | Schorl, or black<br>tourmaline                                          | No treatment (always)                                                                           | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-3578.html">https://www.mindat.org/min-3578.html</a>                                                                                              |
|                    | Tourmaline Cat's-eye | Tourmaline Cat's-eye                                                    | No treatment (commonly)                                                                         | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-53343.html">https://www.mindat.org/min-53343.html</a> |
|                    | Tourmaline Cat's-eye | Tourmaline Cat's-eye                                                    | Near-colourless oils and<br>wax in fissures<br>(occasionally)                                   | O/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-53343.html">https://www.mindat.org/min-53343.html</a> |
|                    | Tourmaline Cat's-eye | Tourmaline Cat's-eye                                                    | Resins or other polymers in<br>fissures (rarely)                                                | RES/SC                     | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4003.html">https://www.mindat.org/min-4003.html</a><br><a href="https://www.mindat.org/min-53343.html">https://www.mindat.org/min-53343.html</a> |
| Tremolite          |                      | See Actinolite                                                          | –                                                                                               |                            | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-4011.html">https://www.mindat.org/min-4011.html</a>                                                                                              |
| Tugtupite          |                      | Tugtupite                                                               | No treatment (Always)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-4044.html">https://www.mindat.org/min-4044.html</a>                                                                                              |
| Turquoise          |                      | Turquoise                                                               | No treatment (Rarely)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b, c & j                     | No                          | <a href="https://www.mindat.org/min-4060.html">https://www.mindat.org/min-4060.html</a>                                                                                              |
|                    |                      | Turquoise                                                               | Impregnated with plastic<br>(commonly)                                                          | I/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4060.html">https://www.mindat.org/min-4060.html</a>                                                                                              |
|                    |                      | Turquoise                                                               | Surface near-colourless<br>waxing (commonly)                                                    | W/SC                       | Unstable                                       | 6.1.<br>6.2.j & k                        | No                          | <a href="https://www.mindat.org/min-4060.html">https://www.mindat.org/min-4060.html</a>                                                                                              |

The Gemstone Blue Book

| Nomenclature       |                  |                                                                         | Treatment                                                                                                    |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                             |
|--------------------|------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type   | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.)              | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                    |
|                    |                  | Turquoise                                                               | Zachery treatment<br>(coloured and Impregnated<br>with a compound<br>containing Potassium)<br>(occasionally) | I/SC                       | Stable                                         | 6.1.<br>6.2.b, c & j                     | No                          | <a href="https://www.mindat.org/min-4060.html">https://www.mindat.org/min-4060.html</a>                                                                                            |
|                    |                  | Turquoise                                                               | Dyed<br>(rarely)                                                                                             | D/SC                       | Unstable                                       | 6.1.<br>6.2.b, c, j & k                  | No                          | <a href="https://www.mindat.org/min-4060.html">https://www.mindat.org/min-4060.html</a>                                                                                            |
|                    | Turquoise Matrix | Turquoise Matrix, or<br>Spider's Web Turquoise                          | See Turquoise above                                                                                          |                            | See Turquoise<br>above                         | 6.1.<br>6.2.b, c, j & k                  | No                          | <a href="https://www.mindat.org/min-4060.html">https://www.mindat.org/min-4060.html</a>                                                                                            |
| Ulexite            |                  | Ulexite                                                                 | No treatment (Always)                                                                                        | N                          | N/A                                            |                                          | No                          | <a href="https://www.mindat.org/min-4085.html">https://www.mindat.org/min-4085.html</a>                                                                                            |
| Uvarovite          |                  | See Garnet                                                              | –                                                                                                            | –                          | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-4125.html">https://www.mindat.org/min-4125.html</a>                                                                                            |
| Variscite          |                  | Variscite                                                               | No treatment (Always)                                                                                        | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-4156.html">https://www.mindat.org/min-4156.html</a>                                                                                            |
| Verdite            |                  | Verdite                                                                 | No treatment (Always)                                                                                        | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-5417.html">https://www.mindat.org/min-5417.html</a>                                                                                            |
| Vesuvianite        |                  | Vesuvianite, or Idocrase                                                | No treatment (Always)                                                                                        | N                          | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-4223.html">https://www.mindat.org/min-4223.html</a><br><a href="https://www.mindat.org/min-6538.html">https://www.mindat.org/min-6538.html</a> |
|                    | Californite      | Californite                                                             | No treatment (Always)                                                                                        | N                          | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-11025.html">https://www.mindat.org/min-11025.html</a>                                                                                          |
| Zinc Blende        |                  | See Sphalerite                                                          | –                                                                                                            |                            | –                                              | –                                        | –                           | <a href="https://www.mindat.org/min-3727.html">https://www.mindat.org/min-3727.html</a><br><a href="https://www.mindat.org/min-6293.html">https://www.mindat.org/min-6293.html</a> |

The Gemstone Blue Book

| Nomenclature       |                              |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                             |
|--------------------|------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type               | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                    |
| Zircon             |                              | Zircon (with colour prefix)                                             | Heated to produce red and<br>near-colourless<br>(always)                                        | H/SC                       | Unstable                                       | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-4421.html">https://www.mindat.org/min-4421.html</a>                                                                                            |
|                    | (blue)                       | Blue Zircon, or Starlite                                                | Heated to produce blue<br>(always)                                                              | H/SC                       | Unstable                                       | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-4421.html">https://www.mindat.org/min-4421.html</a>                                                                                            |
|                    | (other colours)              | Zircon (with colour prefix)                                             | No treatment (Rarely)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.b & j                        | No                          | <a href="https://www.mindat.org/min-4421.html">https://www.mindat.org/min-4421.html</a>                                                                                            |
| Zircon cont...     | (other colours)              | Zircon (with colour prefix)                                             | Heated to improve yellow<br>(commonly) or green<br>(occasionally)                               | H/SC                       | Unstable                                       | 6.1.<br>6.2.b, f & j                     | No                          | <a href="https://www.mindat.org/min-4421.html">https://www.mindat.org/min-4421.html</a>                                                                                            |
| Zoisite            | Blue to violet               | Tanzanite                                                               | No treatment (Rarely)                                                                           | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-4430.html">https://www.mindat.org/min-4430.html</a><br><a href="https://www.mindat.org/min-3885.html">https://www.mindat.org/min-3885.html</a> |
|                    | Blue to violet               | Tanzanite                                                               | Heated<br>(almost always)                                                                       | H/SC                       | Stable                                         | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-4430.html">https://www.mindat.org/min-4430.html</a><br><a href="https://www.mindat.org/min-3885.html">https://www.mindat.org/min-3885.html</a> |
|                    | Blue to violet               | Tanzanite                                                               | Coated with cobalt (rarely)                                                                     | C/SC                       | Unstable                                       | 6.1.<br>6.2.b, j & n                     | No                          | <a href="https://www.mindat.org/min-4430.html">https://www.mindat.org/min-4430.html</a><br><a href="https://www.mindat.org/min-3885.html">https://www.mindat.org/min-3885.html</a> |
| Zoisite cont.      | Transparent other<br>colours | Zoisite with colour prefix                                              | No treatment (commonly)                                                                         | N/SC                       | N/A                                            | 6.1.<br>6.2.j                            | No                          | <a href="https://www.mindat.org/min-4430.html">https://www.mindat.org/min-4430.html</a>                                                                                            |

The Gemstone Blue Book

| Nomenclature       |                                  |                                                                         | Treatment                                                                                       |                            |                                                | Care advice<br>(see Annex A<br>clause 6) | Available as<br>a synthetic | Informative References                                                                                                                                                               |
|--------------------|----------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------|------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material / Species | Variety / type                   | Called in the trade -<br>Species, variety or Trade<br>(Commercial) name | Possible treatment type,<br>lack of treatment &<br>frequency encountered<br>(see clause 4.2.5.) | Trade<br>code <sup>2</sup> | Stability -<br>Variable Stable, or<br>Unstable |                                          |                             |                                                                                                                                                                                      |
|                    | Thulite                          | Thulite                                                                 | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4430.html">https://www.mindat.org/min-4430.html</a><br><a href="https://www.mindat.org/min-3955.html">https://www.mindat.org/min-3955.html</a>   |
|                    | Anyolite                         | Anyolite                                                                | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4430.html">https://www.mindat.org/min-4430.html</a><br><a href="https://www.mindat.org/min-27151.html">https://www.mindat.org/min-27151.html</a> |
|                    | Non-transparent other<br>colours | Zoisite with colour prefix                                              | No treatment (Always)                                                                           | N                          | N/A                                            | 6.1.                                     | No                          | <a href="https://www.mindat.org/min-4430.html">https://www.mindat.org/min-4430.html</a>                                                                                              |

## 9 References

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