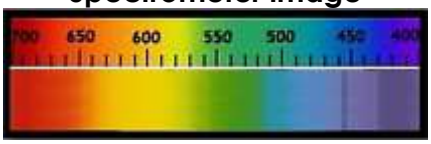
Warning: this version has been completed with Google Translate , it certainly contains errors or inaccuracies.

Technical sheet - general: Goshenite

<table>
<tr><td>Gemma - names</td><td colspan="2">(Italian - Gosenite)
(English - Goshenite)
(French - Ghoshénite)
(Spanish - Goshenita)
(Portuguese - Ghoshenite)
(Thai - โก เช ไน ต์ kocheṇit‘)</td><td>(German - Ghoschenit)
(Arabic - غوشينيت ghushinit)
(Russian - Гошенит Goshenit)
(Mandarin -蓝晶 lán jīng)
(Swahili - Ghoshenite)
(Hindi - गोशेनाइट goshenait)</td><td>photo
  </td></tr>
<tr><td>Colors (GIA)</td><td colspan="3">Colorless, almost colorless or white (translucent). It is a pure beryl containing alkali.</td></tr>
<tr><td>Cause of Color</td><td colspan="4">Virtually free of chromatophore agents.</td></tr>
<tr><td>Classification</td><td>Mineral class
Cyclosilicates</td><td colspan="2">Species - Group (mineral)
Beryls - /</td><td>Variety</td></tr>
<tr><td rowspan="2">Optical properties</td><td>Specific Gravity:
2.68-2.90
Municipality: 2.80</td><td colspan="2">RI: 1,562 to 1,615
Polariscope : DR
Double refraction: - 0.003-0.013 (0.005-0.009 common)</td><td>Character optical
Negative uniaxial</td><td>Pleochroism
Absent</td></tr>
<tr><td colspan="3">Luster (luster) - luster of the fracture
Vitreo - Vietreo</td><td>Dispersion (fire)
0.014</td></tr>
<tr><td>Light</td><td colspan="3">Fluorescence
SWUV (254 nm) : Inert
LWUV (365nm) : inert</td><td>Phosphorescence
NO</td></tr>
<tr><td>Form</td><td>Crystalline dress
Prismatic
Melting point: 2500 ° C</td><td colspan="2">Phenomenal optical effects
NO</td><td>Crystalline system
Hexagonal
Crystal class</td></tr>
<tr><td>Chemical formula</td><td colspan="3">Aluminum silicate and beryllium
$Be_3Al_2(SiO_3)_6$
with trace elements such as Cr, V, Fe, Mn, etc.</td><td>Spectrometer image
 
Non-indicative spectrum</td></tr>
<tr><td>Fracture</td><td>Flaking
Poor-imperfect cleavage along the basal plane</td><td colspan="2">Breaking- Parting
Rare- basal</td><td>Fracture
Concoidal</td></tr>
<tr><td>Durability</td><td>Hardness (Mohs) - Absolute
7.5-8; 150 - 200</td><td colspan="2">Toughness
Buana to fragile</td><td>Stability (heat, light, chemicals)
Good-stable</td></tr>
<tr><td rowspan="2">Clarity - characteristics</td><td colspan="4">Typical inclusions: Typically a transparent gem; most of the specimens that appear clean on visual examination, with no visible inclusions. There are cloudy or even opaque crystals, but these varieties are not used in jewelry. Typical inclusions of beryls such as fuchsite, rutile and other minerals are visible only in the raw crystals.
 
</td></tr>
<tr><td>Type I.
Typically free of inclusions</td><td colspan="3">Transparency (commercial) - transparency
Transparent to translucent</td></tr>
<tr><td>Deposits - types of rocks</td><td colspan="4">It is often found in granite pegmatites and alluvial gravel deposits.
Geological age : 35+ million years ago</td></tr>
<tr><td>Characteristics of rough stones</td><td colspan="4">It forms prismatic or vertically striated crystals, sometimes ending in small pyramidal facets with shapes that tend to be hexagonal, with a flat or pointed top like a prism.</td></tr>
</table>

Main deposits	**Afghanistan** , Badakhshan , Kunar , Nangarhar , **Austria** , **Brazil** , Bahia, Minas Gerais, Paraíba, Rio Grande do Norte , **Canada** , British Columbia, Yukon, **China** , Sichuan, Xinjiang, Yunnan, **Colombia** , **India** , Tamil Nadu , Kazakhstan, Karaganda Region , **Mexico** , **Madagascar** , Amoron'i , Sava, Vakinankaratra , **Myanmar** , Mandalay Region, Pyin-Oo-Lwin District , Shan State, **Namibia** , Erongo Region , Nepa, **Nigeria** , Kaduna, Nasarawa , Plateau, **Pakistan** , Gilgit- Baltistan , Goshawk District, Khyber Province Pakhtunkhwa , **Russia** , Sverdlovsk Oblast , Zabaykalsky Region, Nerchinsky District , **Sri Lanka** , Sabaragamuwa Province , **Tajikistan** , Gorno- Badakhshan , **Ukraine** , Zhytomyr Oblast, **USA** , California, Colorado, Maine, New Hampshire, North Carolina, Utah, **Vietnam ,** Yên Province Bai , **Zambia** , Eastern Province, **Zimbabwe** , East Mashonaland , Mashona and West.
Year of discovery	**1844:** Already known by the Greeks and Romans, the stone took its name from the city of ***Goshen*** , Massachusetts (USA), where it was first found, in 1844.
History	The ancient Greeks used the refractive property of beryl to make **primordial shapes of glasses** . At the time of Nero, this mineral was found on the Island **of Elba the White Beryl (or Gosenite),** which was then cut to be used as a lens. Since the 1st century AD, the excellent qualities of this clear beryl have made it the perfect alternative to other colorless gemstones, such as diamonds. When polished and faceted, it creates a fantastic and classy gem that sits elegantly in white gold. Since other beryls received their color from internal impurities, **early gemologists assumed** that the gem must be pure; however, goshenite was later found to be unique in that it had other chemical impurities that suppressed its color. When it is free of inclusions, it is truly one of the most beautiful gemstones on the planet and rightly deserves the nickname "mother of precious stones". Some also think that this nickname refers to the fact that it is able to transform into a variety of different beryls with the addition of different impurities. **Name :** The name of this gem comes from **Goshen , Massachusetts** which was one of the first areas to discover the gem. व ऽ व ा ड ३ य ः] / ajravai ḍ ūrya was probably the name of goshenite in Sanskrit. In its many other occurrences in literature, In more recent texts, its translation was *dvandva* . scholars have generally translated it as dvandva . **Other trade names:** white beryl, colorless beryl. **Variety** : /
Property attributed	Because of its seemingly pure appearance, Goshenite (or White Beryl as it is sometimes called) has been called the " **mother of precious stones** ". It is also said to be the purest of all gemstones and in several countries the gem is extremely popular in marital ceremonies. In ancient Greece, the Greeks used it to make the **first ever glasses** , as its crystalline transparency **was perfect for lenses** . Perhaps this is why it is believed that this gem can **help improve eyesight** . It is believed that it fights fatigue by empowering those who feel exhausted. It can help to free the mind, bring **truth and clarity to the psyche** , intensify cognitive abilities, confer ease of concentration, removing unnecessary and harmful distractions, **protecting from stress** . Under the esoteric aspect, however, it is considered the precious stone that preserves **memory:** it would therefore have the power to make people **remember previous lives** and, at the same time, to make people forget negative events and injustices received, **thus opening the way to forgiveness. .** It is a stone considered a source of light and spirituality. Metaphysical beliefs hold that it also promotes **self-control, creativity and originality.** **Planet:** Moon **Month:** NA Zodiac **signs :** Taurus, Scorpio or Gemini **Chakra:** Crown
Treatments	Goshenite is generally not enhanced in any way, however there are systems to alter its appearance (although not commonly used). Goshenite can be colored yellow, green, pink, blue and in intermediate colors by irradiating **it with high-energy particles** . The resulting color depends on the content of the impurities Ca, Sc, Ti, V, Fe and Co. When **heated up to 400 ° C, the yellow beryl (heliodor) crystals usually turned colorless** . Some goshenites can be modified through the use of silver and other colored foil coatings in the back of the gem or through the application of a thin colored overlay foil (both very infrequent).

Synthetic counterpart	There is a synthetic counterpart for goshenite, as well as for all other beryls, however it is not commercially available, due to its relatively high production cost compared to a generally low price of natural stone.		
It can be confused with	Rather than being imitated, goshenite tends to imitate other colorless gems, in particular, although not frequently, the diamond. Given the low dispersion, corresponding to an almost imperceptible "fire", inclusions, hardness and other factors, it is difficult for this beryl to pass through a good imitation of the diamond. Colorless gems in general are not very common (apart from diamonds and their imitations, especially synthetic ones) on the market. **Topaz** (separation by: RI, SG, inclusions), **glass** (separation by: optical character), **synthetic spinel** (separation by: hardness, optical character, RI, SG), **quartz and synthetic quartz** (separation by: *optical figure* , RI) , **blue zircon** (separation by: SG, RI, birefringence), **CZ** (separation by: RI, SG, birefringence, dispersion)		
Indicative gemological tests	Different tests reveal the different characteristics between aquamarine and potential simulants, so all possible types of anal must be taken into consideration: visual aspect, microscope examination, polariscope, dichroscope, refractometer, chelsea filter, UV light, etc.		
Value (2021)	**High :** 100 + $ / ct **3 carat +**	**Medium:** 50-80 $ / ct **1-3 carats**	**Low:** $ 10 / ct **below the carat**
Typical cut	Just like any other beryl, goshenite can also be cut into any popular gem shape. It is commonly faceted in brilliant cuts to emphasize its luminous performance and to give it depth, as well as to propose it as an imitation of the diamond. A well-cut goshenite can appear bright with good light output. Sometimes it is worked in cabochon both to highlight its brightness and transparency. But also for a milky appearance.		
Famous stones	There are no particularly famous stones for this gem.		
Record stones	The largest known goshenite weighs 1.3 kg and belongs to Wing Kiat Cheong (Singapore) and was registered for the Guinness Book of Records, Singapore on March 13, 2018.		