LITHOCOSMETICS
Gemstone cosmetic powders

• Gemstones for beauty
Since the most ancient times, precious stones have been used for magical energetic or therapeutic reasons. The first medicinal applications in Europe is probably Hildegard von Bingen curing epilepsy with agate powder.

For thousands of years, gemstones have been used in order to take care of the human body harmony. They present a great interest in cosmetic because they combine a certain originality for Occidental skincare to their ancient history background. They respect a great universal law of harmony and equilibrium.

Soliance has developed recently a whole range of gemstone micronized powders based on the ancient knowledge of their characteristics. Much more than symbols, these Lithocosmetics® are known to have positive effect on beauty through skin interactions.

Precious stones have vibrational energy.

Lithocosmetic acts on a specific organ of the body, the skin.

Lithocosmetic is based on the chakras. The chakras are described as being aligned in an ascending column from the base of the spine to the top of the head and are associated with certain colors. They are considered loci of life energy, or prana, which is thought to flow among them along pathways called nadis. The function of the chakras is to spin and draw in this Universal Life Force Energy to keep the spiritual, mental, emotional and physical health of the body in balance. The seven chakras are said by some to reflect the unified consciousness of humanity (the soul).

Sahasrāra or The crown chakra, is said to be the chakra of consciousness, the master chakra that controls all the others. Its role would be very similar to that of the pituitary gland.

Ajñā or The third eye, is linked to the pineal gland. Ajna is the chakra of time and awareness and of light. The pineal gland is a light sensitive gland, that produces the hormone melatonin.

Viśuddha or The throat chakra, is said to be related to communication and growth. This chakra is paralleled to the thyroid, which produces thyroid hormone responsible for growth and maturation.

Anāhata or The heart chakra, is related to love, equilibrium, and well-being. It is related to the thymus. This organ is part of the immune and endocrine systems.

Manipurā or The solar plexus chakra, is related to energy, assimilation and digestion (conversion of food matter into energy for the body).

Śvādhisthāna or The sacral chakra, is related to emotion, sexuality and creativity. This chakra is linked to various sex hormones involved in the reproductive cycle, and can cause dramatic mood swings.

Mūlādhāra or The base or root chakra, is related to security, survival and also to basic human potentiality. It is said to be related to the inner adrenal glands, responsible for survival instinct under threat.
**Tourmalina, the Energizing Gemstone Cosmetic Powder**

Tourmaline is a mineral found in granite pegmatic and metamorphic rock. It has been characterized since Ancient Egypt by a wide range of different shimmering colors.

**Countries**
Brazil, Ceylon and Russia.

**Meaning of the name**
The name comes from the Sinhalese «turmal» (mixed).

**Chemical structure**
\[(\text{Na,Ca})(\text{Li,Mg,Al})(\text{Al,Fe})_6(\text{BO}_3)_3(\text{Si}_6\text{O}_{18})(\text{OH})_4\]

**Crystalline system**
Hexagonal-Rombohedral

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### Metaphysical characteristics

Tourmalines are said to enhance one's understanding, increase self-confidence and amplify one's psychic energies. They also are said to neutralize negative energies, dispel fear and grief, and to help in concentration and communication. Tourmaline gives off a very focused directional energy, it is supposedly good for moving energy between the chakras. Pink Tourmaline is said to inspire love, spirituality and creativity, and to give wisdom and enhance one's willpower. It is one of the foremost heart chakra healers. It treats stress and nervous conditions.

### Mechanism of action

Tourmaline is a piezo-electric crystal which emits energy in the far infra-red region (4-20 μm). These radiations have unique interaction with biological systems by resonance absorption. The skin absorbs IR radiations at 9μm so Tourmaline crystals can transmit the energy and induce improved blood flow. Far infra red rays improve microcirculation and are involved in better healing as they increase collagen synthesis. Niwa (1993) proved that Tourmaline is capable of activating leukocyte functions without promoting oxidative injury (lipid peroxidation from unsaturated fatty acid was markedly inhibited).

### Approved by ECOCERT for ecological and organic cosmetics

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### Efficacy tests

- Thermograph assessing the effect of the tourmaline powder-containing cream, taken at constant room temperature (25°C) on a volunteer.

![Thermograph before treatment.](a)

(a) Thermographed before treatment.

![Thermograph after treatment.](b)

(b) Thermograph taken 210 sec after treatment: Tourmaline increases skin temperature.

- A 1% tourmaline containing cream is applied on the left half face and a placebo cream on the right one. The 5 volunteers are placed at constant temperature. Thermographs are taken 5 minutes after application.

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### Cosmetic characteristics

Tourmalina is a micronized powder of tourmaline that belongs to the Lithocosmetics® range composed of cosmetic gemstones. Tourmalina triggers microcirculation through a physical phenomenon: far infra-red energy emission. It improves the complexion by increasing skin temperature.
**JADE, THE HARMONIZING GEMSTONE COSMETIC POWDER**

Jade originates from quarries located on the world highest plateau: Pamir, in the mountains of the Chinese provinces of Xinjiang. The denomination « Jade » designates two different minerals: the nephrite and the jadeite. The nephrite, also called « true Jade », is a calcium and magnesium silicate. Soliance puts forward a micronized nephrite powder (30µm max.).

**Countries**
China, Birmanie, Russia, New-Zealand, Canada.

**Meaning of the name**
The jade, « Yu » in Chinese language, stands for « Preciousness ».

**Chemical structure**
Ca$_2$(Mg, Fe)$_5$[Si$_4$O$_{11}$]$_2$(OH)$_2$
(color variations: green to yellow, grey, white, reddish or even brownish).

**Crystalline system**
Monoclinic.

**Metaphysical characteristics:**
Jade is the symbol of nobility, perfection and immortality. For Chinese people, Jade is infinitely more precious than gold and is associated with the feminine virtue of purity. Jade was traditionally used in Chinese, Indian and South-American civilizations to chase away evil spirits and treat internal diseases and nephritis.

**Cosmetic characteristics:**
It has been proven that Jade emits energy in the far Infra-Red wavelengths (of 9µm). The skin is able to absorb this energy emitted by the jade which induces an increase in skin temperature and stimulates microcirculation. This naturally leads to a more radiant skin tone. By stimulating skin microcirculation, Jade also triggers a draining effect, thus helping fat elimination.

**Efficacy tests**

• Measurements of the emissivity (capacity of a body to absorb and reemit the radiative energy) of an emulsion containing various Jade concentrations, using a spectrophotometer.

• A 1% jade containing cream is applied on the right half face and a placebo cream on the left one. The 5 volunteers are placed at constant temperature. Thermographs are taken 210 seconds after application.

Thanks to its unique property of the Infra-Red emission, Jade is able to stimulate skin microcirculation and increase the skin temperature.

**Cosmetic applications**
Jade is a micronized powder of nephrite with draining properties due to microcirculation stimulation. It enhances the skin tone and radiance and increases skin temperature for a relaxing activity and an immediate warming effect.
### Sapphira, The Regulating Gemstone Cosmetic Powder

Sapphire, “gem of heaven”, has been cherished for thousands of years. The ancient Persians believed that the earth rested on a giant sapphire and its reflection colored the sky. From the deep blue of evening skies to the bright and deep blue of a clear and beautiful summer sky, sapphire exists in all the shades of blue skies. This splendid gemstone, however, also comes in many other colors, displaying the bright fireworks of sunset colors: yellow, pink, orange and purple.

<table>
<thead>
<tr>
<th>Countries</th>
<th>India, Burma, Ceylon, Thailand, Vietnam, Australia, Brazil and Africa.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaning of the name</td>
<td>«Sapphire» comes from the Persian word «safir», or Greek «sapphiros», meaning «beloved of Saturn».</td>
</tr>
<tr>
<td>Chemical structure</td>
<td>Sapphire is a variety of the mineral species corundum: Al₂O₃</td>
</tr>
<tr>
<td>Crystalline system</td>
<td>Trigonal</td>
</tr>
</tbody>
</table>

**Metaphysical characteristic**

Sapphire symbolizes loyalty and faithfulness, while at the same time expressing love and desire. Blue sapphire is used to transmute anger and impulsiveness into patience and waiting. Sapphire wakes up the conscience as well as qualities of wisdom, intuition, interior peace, knowing and simplicity. Sapphire calms and alleviates the pain.

**Cosmetic characteristics**

Sapphira is a sapphire micronized powder that belongs to the Lithocosmetics® range composed of cosmetic precious stone. Sapphira is excellent for the skin, the hair and the nails. It can be used to fight against skin eruptions and excessive perspiration.

### Rubisa, The Modulating Gemstone Cosmetic Powder

Ruby is the red variety of the corundum mineral. For thousands of years Ruby has been considered one of the most valuable gemstones of our Earth. It has got all it takes for a precious stone: a wonderful color, excellent hardness and an overwhelming brilliance. Slight traces of the color creating elements such as chrome, iron, titanium or vanadium are responsible for the red colour, synonymous of passion and power.

<table>
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<tr>
<th>Countries</th>
<th>Sri Lanka, Burma, Thailand, Vietnam and Australia.</th>
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</thead>
<tbody>
<tr>
<td>Meaning of the name</td>
<td>In the Sanskrit language, ruby is called “ratnaraj”, which means “King of Gemstones”</td>
</tr>
<tr>
<td>Chemical structure</td>
<td>Al₂O₃</td>
</tr>
<tr>
<td>Crystalline system</td>
<td>Rhomboedric or trigonal</td>
</tr>
</tbody>
</table>

**Metaphysical characteristics**

Ruby protects people from afflictions, sorrow and disasters. This stone strengthens the spirit, prevents egoism and authoritarianism. The wearer of the ruby enjoys wealth and property and becomes fearless.

**Cosmetic characteristics**

Rubisa is a ruby micronized powder that belongs to the Lithocosmetics® range composed of cosmetic gemstone. Rubisa is a strong stimulator and good regulator of blood circulation. It also has a toning effect.
DIAMOND, THE PURITY GEMSTONE COSMETIC POWDER

Diamond is the hardest known natural material, the most beautiful form of carbon. Its high dispersion of light makes it one of the most beautiful gemstones in jewelry.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Brazil, Australia, Africa and Russia.</th>
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</thead>
<tbody>
<tr>
<td>Meaning of the name</td>
<td>It derives from the ancient Greek «adamas» (invincible).</td>
</tr>
<tr>
<td>Chemical structure</td>
<td>Crystal of pure carbon (colorless diamonds), sometimes with impurities (yellow, blue, green, purple, pink, grey and black variations).</td>
</tr>
<tr>
<td>Crystalline system</td>
<td>Cubic</td>
</tr>
</tbody>
</table>

Metaphysical characteristics

Diamonds are the traditional emblem of fearlessness, virtue, power and wealth. Today, diamonds symbolize eternity and are often seen on engagement rings.

Diamond is a great assistance for all brain diseases. It is also beneficial in stomach area and can strengthen the owner’s memory. The wearer of Diamond is protected from the bad influence of evil spirits and snakebites. Diamond is an antidote to poison and is capable of detecting poison.

Cosmetic characteristics

Diamond is a micronized powder that belongs to Lithocosmetics range composed of cosmetic gemstones. This stone shows healing properties and stimulates immune defences. Diamond can be useful to treat bone diseases.

CONCLUSION

Gemstones have proven efficacy, for thousands of years, on Human organ balance, such as in the skin. Soliance developed this new range of products in order to offer cosmetic active solutions coming from ancient times, that may be combined to new cosmetic formulation.

Besides the natural appeal of precious stones, Lithocosmetic represents a real originality in skincare. Stones belong to Nature which includes also Plants or Animals, and help in skincare. They have not yet revealed all their power.

With luxury and exotic characteristics, Lithocosmetic is becoming a must in new cosmetic products.

REFERENCES


<table>
<thead>
<tr>
<th>Name</th>
<th>INCI</th>
<th>Color</th>
<th>Granulometry</th>
<th>Properties</th>
<th>Recommended dosage</th>
</tr>
</thead>
</table>
| Tourmalina| Tourmaline    | White to Off-white     | <20μ         | • activate microcirculation  
                                                          • revive skin radiance | 1 to 3%            |
| Jade      | Nephrite Powder | White to pale grey    | <30μ         | • activate microcirculation –  
                                                          draining properties  
                                                          • improve skin complexion and tone | 0.5 to 2%          |
| Sapphira  | Sapphire powder | White to grayish white | <10μ         | • restore skin, hair and nails  
                                                          homeostasis  
                                                          • soothe sensitive skin pain | 0.5 to 2%          |
| Rubisa    | Ruby powder   | Beige to pinkish beige | <10μ         | • tone the skin  
                                                          • promotes skin well-being | 0.5 to 2%          |
| Diamond   | Diamond powder | Yellowish to greyish   | <15μ         | • activate microcirculation  
                                                          • improve skin complexion | 0.5 to 2%          |

**Preservative**
None

**Cosmetic applications**
Lithocosmetics® may be used in a wide range of cosmetic products:

**Skincare**
- Day and night creams  
- Anti-aging products  
- Sun protections  
- Toning gels and lotions

**Haircare**
- Hair masks  
- Hair tonics  
- Nail creams

**Bodycare**
- Firming products  
- Body contouring products  
- Massage formulations  
- Body talc

**Make-up**
- Foundations  
- Compact powders

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