

# CoverGirl Exact Eyelights Mascara in Black Sapphire

### WHAT is it made of?

Mascaras are made to make eyelashes look darker, longer, and thicker, among other things. But what is in the mascara that allows your eyelashes to be darker, longer and thicker? The list of ingredients of CoverGirl's Exact Eyelights Mascara in Black Sapphire is listed below:

Water, Gylceryl Stearate, Ammonium Acrylates Copolymer, (Disteardimonium) Hectorite, Propylene Glycol, Stearic Acid, Copernicia Cerifera (carnauba) Wax, Triethanolamine, Synthetic Wax, Mica, Polyvinyl Alcohol, Lecithin, Propylene Carbonate, Oleic Acid, Alcohol Denat, Methylparaben, Phenoxyethanol, Benzyl Alcohol, Propylparaben, Panthenol, Gylcerin, Simethicone, Ethylparaben, Sodium Laureth Sulfate, Xanthan Gum, Trisodium EDTA, Iron Oxides, Titanium Dioxide, Ferric Ferrocyanide, Aluminum Powder, Carmine, Ultramarines, Manganese Violet, Bismuth Oxychloride, Chromium Oxide Greens.

## Non-Renewable Earth Resources

The non-renewable Earth resources I chose to investigate were Copernicia Cerifera Wax (commonly known as Carnauba Wax), Mica, Oleic Acid, Carmine, Ultramarines, Lecithin, and Hectorite.

COVERGIRE

#### Did you know that?

- Mascara was invented in the 19th Century by Eugene Rimmel
- Rimmel actually means mascara in several languages, including Portuguese, Romanian, Turkish, and Dutch
- The word mascara derives from the Italian word, maschera

# Copernicia Cerifera (Carnauba Wax)

Carnauba Wax is taken from the leaves of the carnauba palm (copernicia prunifera). The carnauba palm is grown only in the northeastern Brazilian states of Piauí, Ceará and Rio Grande do Norte. It has also been planted in Africa, Sri Lanka and other parts of South America but the only trees that produce wax are the trees in Brazil. Carnauba Wax normally comes in the form of flakes, which

Capernicia Prunifera

are hard and yellow-brown in colour.

The process of retrieving the wax occurs in the dry seasons when the palm trees are creating a coat of wax on both sides of the fronds to protect them from moisture loss. The wax is now powdery and the leaves are removed from the trees. The

leaves are beaten, melted, strained and cooled. Now the wax is a yellow or brownish green, but it depends on how well the leaves were processed and the age of the leaves.

Carnauba Wax is mainly made up of fatty acids, fatty alcohols, acids, and hydrocarbons.

Did you know that Carnauba Wax is hypoallergenic

In mascara, carnauba wax is used to make the formula thicker.

(right) Flakes of Carnauba Wax



Mica

Mica is a mineral that occurs in igneous, sedimentary, and metamorphic rocks. Up until the 19th Century, large mica crystals were found in Europe. They were very rare and therefore expensive. From the 19th Century to 1960s, mica was mined in New England. In 2005, the British Geological Survey stated that India has the largest deposits of mica in

the world, while China is the top producer of mica. The United States,

South Korea and Canada are also high producers of mica.

Muscovite Mica

Flake and scrap mica is produced all over the world. In the United States, flake and scrap mica are made in North and South Carolina, Arizona, Georgia and New Mexico. Flake mica comes from many sources, including the metamorphic rock schist. Sheet mica is less commonly found. The United

States imports more than half of its sheet mica due to mining for it being costly. Sheet mica is sometimes found by mining for flake and scrap mica. The more important places to mine when looking for sheet mica are in pegmatites (slow-cooling igneous

rocks that large crystals form in).

There are 37 different mica minerals. The two micas that are used as commodities are brown mica (phlogopite) and red, green, or white mica (muscovite). Phlogopite contains iron and magnesium and muscovite contains potassium and aluminum. Phlogopite generally forms in metamorphic rocks while muscovite forms in igneous rocks or pegmatites.

Did you know that the largest sheet of mica ever mined in the entire world came from Denholm, Quebec?

In this particular mascara, there are flecks of glitter, which come from mica



(left) Phlogopite Mica

## **Carmine**

Carmine is a pigment of a bright red colour. It is also known as Crimson Lake, Natural Red 4, Cochineal, C.I. 75470 or E120.

It comes from the carminic acid of the dried bodies of insects, such as the cochineal and the Polish cochineal. Cochineals are small

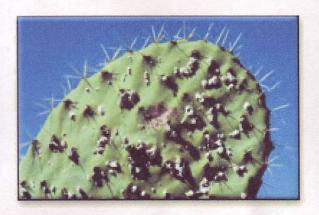
scale insects that feed on cacti. This is why deep red colours are often referred to as Cochineal.

To get Carmine, dried insects are boiled in water so that the carminic acid can be extracted, and then treating the clear solution.



Cochineal beetles eating a cactus

In this mascara, Carmine is used as a colour dye.



(left) Cochineal insects on a prickly pear cactus

### Did you know that?

- Today's modern tube and wand applicator did not appear until 1957
- In 1960, Revlon invented Brush On mascara, which was their first coloured mascara
- In the 1920s, women "beaded" their eyelashes by putting little beads of mascara on the tip of each lash

### Bibliography

- 1001 Herbs for a Healthy Life. "Lecithin." 1001 Herbs for a Healthy Life. 2000. 1001 Herbs for a Healthy Life. 22 Feb. 2009 <a href="http://www.1001herbs.com/lecithin/">http://www.1001herbs.com/lecithin/</a>>.
- 3Dchem, and 3Dchem. "Oleic Acid @ 3Dchem.com." <u>3Dchem.com</u>. Aug. 2007. 3Dchem. 22 Feb. 2009 <a href="http://www.3dchem.com/molecules.asp?ID=384">http://www.3dchem.com/molecules.asp?ID=384</a>.
- Absolute Astronomy, and Absolute Astronomy. "Mascara." <u>Absolute Astronomy.org</u>. 2009.

  Absolute Astronomy. 22 Feb. 2009 <a href="http://www.absoluteastronomy.com/topics/">http://www.absoluteastronomy.com/topics/</a>
  Mascara>.
- Cosmetics Info. "Hectorite." <u>Cosmetics Info.org</u>. Cosmetics Info. 22 Feb. 2009 <a href="http://www.cosmeticsinfo.org/ingredient">http://www.cosmeticsinfo.org/ingredient</a> details.php?ingredient id=414>.
- Mine Engineer. "Hectorite." <u>Mine Engineer</u>. Mine Engineer. 22 Feb. 2009 <a href="http://www.mine-engineer.com/mining/mineral/hector.htm">http://www.mine-engineer.com/mining/mineral/hector.htm</a>.
- Mineral Information Institute. "Mica." <u>Mineral Information Institute</u>. 2001. Mineral Information Institute. 22 Feb. 2009 <a href="http://www.mii.org/Minerals/photomica.html">http://www.mii.org/Minerals/photomica.html</a>.
- Web Exhibits. "Carmine (Cochineal and Kermes)." <u>Pigments Through the Ages</u>. Web Exhibits. 22 Feb. 2009 <a href="http://www.webexhibits.org/pigments/indiv/overview/carmine.html">http://www.webexhibits.org/pigments/indiv/overview/carmine.html</a>.

- Wikimedia Foundation, Inc. "Carmine." <u>Wikipedia</u>. 8 Feb. 2009. Wikimedia Foundation, Inc. 22 Feb. 2009 <a href="http://en.wikipedia.org/wiki/Carmine">http://en.wikipedia.org/wiki/Carmine</a>.
- ---. "Carnauba Wax." <u>Wikipedia</u>. 26 Jan. 2009. Wikimedia Foundation, Inc. 22 Feb. 2009 <a href="http://en.wikipedia.org/wiki/Carnauba\_wax">http://en.wikipedia.org/wiki/Carnauba\_wax</a>.
- --- "Lapis lazuli." <u>Wikipedia</u>. 17 Feb. 2009. Wikimedia Foundation, Inc. 22 Feb. 2009 <a href="http://en.wikipedia.org/wiki/Lapis\_lazuli">http://en.wikipedia.org/wiki/Lapis\_lazuli</a>.
- ---. "Lecithin." <u>Wikipedia</u>. 22 Feb. 2009. Wikimedia Foundation, Inc. 22 Feb. 2009 <a href="http://en.wikipedia.org/wiki/Lecithin">http://en.wikipedia.org/wiki/Lecithin</a>>.
- ---. "Ultramarine." <u>Wikipedia</u>. 7 Feb. 2009. Wikimedia Foundation, Inc. 22 Feb. 2009 <a href="http://en.wikipedia.org/wiki/Ultramarine">http://en.wikipedia.org/wiki/Ultramarine</a>.
- Wise Geek. "What is Oleic Acid?" <u>Wise Geek</u>. Wise Geek. 22 Feb. 2009 <a href="http://www.wisegeek.com/what-is-oleic-acid.htm">http://www.wisegeek.com/what-is-oleic-acid.htm</a>.