VETIVER OIL

SYNONYMS
Extract of Vetiveria zizanioides; Vetivert;

PRODUCT IDENTIFICATION
CAS RN 8016-96-4; 84238-29-9
EINECS RN 282-490-8
H.S.CODE 3301.26.0000
MAJOR COMPONENTS alpha-Vetivone (CAS RN.: 15764-04-2)
beta-Vetivone (CAS RN.: 18444-79-6)
Khusimol (CAS RN.: 16223-63-5)

FORMULA
MOLE WEIGHT

PHYSICAL AND CHEMICAL PROPERTIES
PHYSICAL STATE yellow to brown liquid
MELTING POINT
BOILING POINT
DENSITY 0.985 - 1.025
SOLUBILITY IN WATER Insoluble (soluble in alcohol)
pH
VAPOR DENSITY
REFRACTIVE INDEX 1.520 – 1.530
FLASH POINT 130°C

STABILITY AND REACTIVITY
STABILITY Stable under normal conditions.
INCOMPATIBLE Strong oxidizing agents, Strong reducing agents, Strong bases
MATERIALS
DECOMPOSITION Carbon monoxide, Carbon dioxide.
PRODUCTS
POLYMERIZATION Has not been reported
NFPA RATINGS Health: 2, Flammability: 0, Reactivity: 0

SAFETY
HAZARD NOTES Irritating to eyes and skin.
EYE Irritating to eyes.
SKIN Irritating to skin.
INGESTION May be harmful.
INHALATION Irritating to respiratory system.
CHRONIC

TRANSPORT & REGULATORY INFORMATION
UN NO.
HAZARD CLASS
PACKING GROUP
HAZARD SYMBOL XI
RISK PHRASES 22-36/38
SAFETY PHRASES 26-36
VETIVER OIL

GENERAL DESCRIPTION

The essential oil of vetiver, Vetiveria zizanioides (L.) Nash is one of the most important raw materials in perfumery both as a fixative and in its own right as a fragrance ingredient. It has extensive applications in toiletries and cosmetic industries and vetiver root is also important in traditional medicine as a carminative, stimulant and diaphoretic. Vetiver oil possesses sedative property and has been traditionally used in aromatherapy for relieving stress, anxiety, nervous tension and insomnia for a long time (Fischer-Rizzi, 1990).

Vetiver oil consists of a complex mixture of more than 150 sesquiterpenoid constituents. The composition and odor quality of the oil is dependent upon its origin. Among the 60 components identified to date, the sesquiterpene alpha-vetivone, beta-vetivone, and khusinol always occur in the oil in amounts up to 35%. As a result, they are considered to be fingerprints of the oil even though they do not possess the typical odor characteristics associated with vetiver.

The roots of the Vetiver grass contain an essential oil, known as Vetiver oil or 'khus oil', which can be extracted for a number of uses; Vetiver oil has been utilized as raw material for various fragrant products such as perfumes, including several famous brands, deodorants, lotions, and soaps. Apart from the medicinal uses found in the roots, leaves and oil, stated above, the oil also has pesticidal properties. Vetiver oil is known to repel insects, flies and cockroaches, moths and termites. (source: http://www.vetiver.com)

Vetiver oil is dominated by a complex mixture of oxygenated sesquiterpenes. The ketones alpha-vetivone (compare with nootkatone from grapefruit) and beta-vetivone, which usually form more than 10 % of the oil, as well as khusimol, ca. 15 %, and its derivatives, contribute significantly to its odor. Vetiver oil is used in luxury perfumes for persistent green-woody notes. An even finer product, called vetiveryl acetate, is created by acetylating the sesquiterpene alcohols present in the oil. It has an elegant, soft, fruity-woody character. In classical perfumery, the oils of vetiver, patchouli and sandalwood in combination with a jasmine and gardenia complex was the base of the famous Crepe de Chine note [3]. Vetiver products are used in many modern men's colognes, e.g Vetiver (Guerlain 1959), and the newer Hugo Dark Blue (Boss 1999) and Azzura (Azzaro 1999). Lately, vetiver grass has gained focus for quite another reason. Its very excessive roots are effective in preventing soil erosion in the tropics where the original forest has been destroyed. Vetiver oil is also called vetivert, khus-khus, khas-khas or 'oil of tranquility' in India. (source: http://www.bojensen.net)

<table>
<thead>
<tr>
<th>Typical Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoic acid</td>
</tr>
<tr>
<td>Furfurol</td>
</tr>
<tr>
<td>Vetivene</td>
</tr>
<tr>
<td>Vetivenyl vetivenate</td>
</tr>
<tr>
<td>Terpinen-4-ol</td>
</tr>
<tr>
<td>5-Epipedizane</td>
</tr>
<tr>
<td>Khusimene</td>
</tr>
<tr>
<td>alpha-Muurolene</td>
</tr>
<tr>
<td>Khusimone</td>
</tr>
<tr>
<td>Calacorene</td>
</tr>
<tr>
<td>beta-Humulene</td>
</tr>
<tr>
<td>alpha-Longipinene</td>
</tr>
<tr>
<td>gamma-Selinene</td>
</tr>
<tr>
<td>delta-Selinene</td>
</tr>
<tr>
<td>delta-Cadinene</td>
</tr>
<tr>
<td>Valencene</td>
</tr>
<tr>
<td>Calarene,-gurjunene</td>
</tr>
</tbody>
</table>

Please mail us if you want to sell your product or need to buy some products.
VETIVER OIL

alpha-Amorphene
Epizizanal
3-Epizizanol
Khusimol
Isokhusimol
Valerenol
beta-Vetivone
alpha-Vetivone
Vetivazulene

SALES SPECIFICATION
APPEARANCE yellow to brown liquid
OPTICAL ROTATION 17° ~ 46°
ACIDITY 10 – 70 mgKOH/g
DENSITY 0.985 – 1.025
REFRACTIVE INDEX 1.520 – 1.530

PACKING

PRICE