



MATERIAL SAFETY DATA SHEET

1. Chemical Identification:

PRODUCT NAME:	VETIVER OIL
BOTANICAL NAME:	VETIVERIA ZIZONIOIDES
ALSO CALLED	KHUS OIL, KHUS KHUS OIL, RUH KHUS OIL
INCI NAME:	VETIVERIA ZIZONIOIDES
CAS #:	8016-96-4
COUNTY OF ORIGIN:	INDIA
LOT #	SEI/SI-175/VETIV
MANUFACTURING DATE	JAN 2019
EXPIRY DATE:	JAN 2022

2. Classification:

Chemical Identification: ESSENTIAL OIL, VETIVER

UN No. 2319: Terpene hydrocarbons, n.o.s.

Packaging Group: III

Class: 3

3. Hazardous Ingredients Information:

MIXTURE OF SEVERAL NATURAL ISOLATES

4. First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get

Medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

5. Fire/Explosion Hazard:

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: >100 °C

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of open flames and sparks, of heat.

Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

6. Accidental Release Measures

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:

Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.

7. Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk;

evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F)...

8. Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection: Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

9. Physical & Chemical Properties:

APPEARANCE:	BROWN TO REDDISH VISCOUS LIQUID
ODOR:	CHARATERISTIC SWEET WOODY ODOR
SOLUBILITY:	SOLUBLE IN ALCOHOL AND OILS. INSOLUBLE IN WATER.
SPECIFIC GRAVITY:	0.980 – 1.003 @ 20 °C
OPTICAL ROTATION:	+10 - +25° @ 20 °C
REFRACTIVE INDEX:	1.520 – 1.530 @ 20 °C
FLASH POINT	>100 °C
EXTRACTION METHOD:	STEAM DISTILLATION OF DRIED ROOTS
ACTIVE CONSTITUENT	VETIVEROL : 45- 60%

10. Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat (elevated temperatures), flame, ignition sources

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

11. Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals:

LD50: Not available.

LC50: Not available.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: N/A

Acute Potential Health Effects: N/A

Skin: May cause skin irritation. N/A

Eyes: May cause eye irritation. N/A

Hazards for inhalation and ingestion have not been established and the toxicological properties of this substance have not been fully investigated. Acceptable industrial hygiene practices should be maintained. Limit exposure to product whenever possible. Wash after contact. Thoroughly wash any contaminated clothing. Respiratory protection may not be normally required if substance is used in a well ventilated area. However, the use of NIOSH approved respiratory protection may be required if substance is used in a confined, poorly ventilated area.

12. Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. Toxicity of the Products of Biodegradation: The products of degradation are more toxic. Special Remarks on the Products of Biodegradation: Not available.

13. Disposal Considerations

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport Information

DOT Classification: Not a DOT controlled material

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

15. Regulatory Information

Federal and State Regulations: No products were found.

Other Regulations: Not available.

Other Classifications:

Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
Splash goggles.