




## MATERIAL SAFETY DATASHEET

|                           |                              |
|---------------------------|------------------------------|
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## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION & THE COMPANY/UNDERTAKING

|   |                        |   |           |            |     |
|---|------------------------|---|-----------|------------|-----|
| <b>1.1 Product Identifier</b>   |                        |   |           |            |     |
| Product Name  |                        | Clove Leaf essential Oil  |           |            |     |
| Biological Definition   |                        | Eugenia Caryophyllus Flower Oil is the volatile oil steam distilled from the dried flower buds of the Clove, Eugenia caryophyllus, Myrtaceae. It consists chiefly of eugenol. |           |            |     |
| INCI Name   |                        | <i>Syzygium Aromaticum/Eugenia Caryophyllus Flower Oil</i>  |           |            |     |
| Synonyms & Trade Names  |                        | ---   |           |            |     |
| CAS-No  | 8000-34-8 / 84961-50-2 | EC No.  | 284-638-7 | EINECS No. | N/A |
| <b>1.2 Relative identified uses of the substance or mixture and uses advised against</b>                        |                        |   |           |            |     |
| Industrial uses. Formulation [mixing] of preparations. Uses advised against: Other uses than those recommended. |                        |   |           |            |     |
| <b>1.3 Details of the supplier of the safety data sheet</b>   |                        |   |           |            |     |
| VENKATRAMNA INDUSTRIES, Talaya Chauki, Kannauj-209725, (UP) INDIA   |                        |   |           |            |     |
| <b>1.4 Emergency Tel. No.</b>   |                        | +91-9554075786  |           |            |     |

## 2. HAZARDS IDENTIFICATION

|   |         |
|---|---------|
| <b>2.1 Classification of the substance or mixture</b>   |         |
| Classification according to the Regulation (EC) No 1272/2008. Sensitization — Skin, Hazard Category 1; H317.  |         |
| <b>2.2 Label Elements</b>   |         |
| Signal Word   | Warning |
|    |         |
| Hazard Statements   |         |
| H317: May cause an allergic skin reaction.  |         |
| Precautionary Statements  |         |
| P102 - Keep out of the reach of children.<br>P261: Avoid breathing dust/fume/gas/mist/vapours/spray.<br>P280: Wear protective gloves. P302+P352: IF ON SKIN: Wash with plenty of water.<br>P333+P313: If skin irritation or rash occurs: Get medical advice/attention.<br>P362+P364: Take off contaminated clothing and wash it before reuse. |         |

|  |               |
|--|---------------|
| P501: Dispose of contents/container to an approved waste disposal plant. |               |
| Supplementary Precautionary Statements                                   |               |
| ---  |               |
| 2.3  | Other Hazards |
| May cause skin irritation/allergy. Patch test recommended.               |               |

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| 3.1 | Substances   |
|-----|--|
|     | <ul style="list-style-type: none"> <li>&lt; 87.0% Eugenol</li> <li>&lt; 15.0% Hydrocarbons</li> <li>&lt; 5.0% Eugenyl Acetate</li> <li>&lt; 0.1% Methyl Eugenol (Eugenyl Methyl Ether).</li> </ul> |

### 4. FIRST AID MEASURES

| 4.1   | Description of first aid measures   |
|---|---|
| Inhalation  | Remove person to fresh air and keep at rest   |
| Ingestion   | If swallowed, rinse mouth with water. Seek medical advice immediately and show this container or label. Do NOT induce vomiting. |
| Skin Contact  | Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.                            |
| Eye Contact   | First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.         |
| 4.2   | Most important symptoms and effects, both acute and delayed   |
| <p>Eye contact: May cause eye irritation and corneal damage if not immediately rinsed out.</p> <p>Skin Contact: Repeated contact may cause allergic dermatitis.</p> <p>Inhalation: Breathing high concentrations of vapor may cause anesthetic effects.</p> <p>Ingestion: Do Not Induce vomiting.</p> |   |
| 4.3   | Indication of any immediate medical attention and special treatment needed  |
| No additional data available  |   |

### 5. FIRE-FIGHTING MEASURES

| 5.1 | Extinguishing Media  |
|-----|--|
|     | Carbon dioxide, dry chemical powder or appropriate foam. For safety reasons do not use full water jet  |
| 5.2 | Special hazards arising from the product   |
|     | None known   |
| 5.3 | Advice for firefighters  |
|     | <p>In case of fire in the surrounding area, follow the recommendations below:</p> <ul style="list-style-type: none"> <li>1-Closed containers may build up pressure at elevated temperatures.</li> <li>2-Avoid inhalation of fumes or vapours. Use appropriate respiratory protection.</li> <li>3-Prevent run-off from fire fighting to enter drains or water courses.</li> </ul> |


## 6. ACCIDENTAL RELEASE MEASURES

|  |   |
|--|---|
| <b>6.1 Personal precautions, protective equipment and emergency procedures</b> |   |
|  | Wear appropriate gloves to prevent skin exposure. Avoid contact with skin and inhalation of its vapours or smoke. Maintain adequate ventilation in the working area after spilling.   |
| <b>6.2</b>   | <b>Environmental Precautions</b>  |
|  | Avoid contaminating the environment via the sewers or water sources.  |
| <b>6.3</b>   | <b>Methods and material for containment and cleaning up.</b>  |
|  | Cover with an inert, inorganic, non-combustible absorbent material (e.g. dry-lime, sand, soda ash). Ventilate area and wash spill site after material pickup is complete. Dispose of in accordance with current laws and regulations. |
| <b>6.4</b>   | <b>Reference to other sections</b>  |
|  | See also sections 8 and 13.   |

## 7. HANDLING AND STORAGE

|  |  |
|--|--|
| <b>7.1 Precautions for safe handling</b> |  |
|  | Requirements relating to storage premises apply to all facilities where the substance is handled. Individuals with a history of skin sensitisation should not, under any circumstance, handle this substance. Always wash hands after handling. Remove and wash contaminated clothing before re-using. Prevent access by unauthorised personnel. No smoking, eating or drinking in areas where the substance is used. For personal protection, see section 8. Observe precautions stated on label and also industrial safety regulations.<br>Avoid skin and eye contact with this substance. |
| <b>7.2</b>                               | <b>Conditions for safe storage, including any incompatibilities</b>  |
|  | Keep the product in its original container well sealed, in a dry and ventilated area, away from potential sources of ignition and protected from light. Store in accordance with local/national regulations and follow the warnings on the label.  |
| <b>7.3</b>                               | <b>Specific end use(s)</b>   |
|  | No additional data available.  |

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

|   |                               |
|---|-------------------------------|
| <b>8.1 Control parameters</b>   |                               |
| Declaration of substances is not required   |                               |
| <b>8.2 Exposure controls</b>  |                               |
| <b>Protective Equipment</b>   |                               |
|  |                               |
| Process Conditions  | Provide eyewash station.      |
| Engineering Measures  | Provide adequate ventilation. |

|                                 |  |
|---------------------------------|--|
| Respiratory Equipment           | For high concentrations use respiratory equipment.   |
| Hand Protection                 | Chemical resistant gloves (PVC)  |
| Eye Protection                  | Wear approved safety goggles.  |
| Other Protection                | Wear appropriate clothing to prevent any possibility of skin contact.                                |
| Hygiene Measures                | Good personal hygiene practices are always advisable, especially when working with chemicals / oils. |
| Personal Protection             | Use personal protection according to Directive 89/686/EEC.   |
| Skin Protection                 | Wear apron or protective clothing in case of splashes.   |
| Environmental Exposure Controls | Avoid discharging into drainage water. Only eliminate by authorized companies.                       |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| 9.1 Information on basic physical and chemical properties |   |
|---|---|
| Appearance  | Clear Liquid                            |
| Colour  | Yellow to light brown                   |
| Odour   | Characteristic – spicy, eugenolic.      |
| Relative Density  | 1.027 – 1.065 g/cm <sup>3</sup> (20 °C) |
| Flash Point (°C)  | >100 °C                                 |
| Refractive Index  | 1.527 – 1.538 (20 °C)                   |
| Melting Point (°C)  | No additional data available            |
| Boiling Point (°C)  | No additional data available            |
| Vapour Pressure   | No additional data available            |
| Solubility in Water @20°C                                 | Insoluble in water.                     |
| Auto-ignition temperature (°C)                            | No additional data available            |
| 9.2 Other information                                     |   |
| No additional data available.                             |   |

## 10. STABILITY AND REACTIVITY

| 10.1 Reactivity   |  |
|---|--|
| No dangerous reactions known.   |  |
| 10.2 Chemical stability   |  |
| Stable under normal operating conditions.   |  |
| 10.3 Possible hazardous reactions   |  |
| Hazardous Polymerization: It does not undergo any dangerous reactions under normal conditions.                |  |
| 10.4 Conditions to Avoid  |  |
| Heat, flames and other sources of ignition. No special precautions other than good housekeeping of chemicals. |  |
| 10.5 Incompatible materials   |  |
| Oxidizing mineral acids, strong reducing agents, strong oxidizing agents.                                     |  |
| 10.6 Hazardous Decomposition Products   |  |
| Carbon monoxide and other unidentified organic compounds may be formed upon combustion.                       |  |

## 11. TOXOLOGICAL INFORMATION

| 11.1 Information on toxicological effects   |   |
|---|---|
| Acute Toxicity  | EUGENYL METHYL ETHER (METHYL EUGENOL):<br>Oral route : LD50 = 810 mg/kg<br>EUGENYL ACETATE:<br>Oral route : LD50 = 1670 mg/kg<br>HYDROCARBONS:<br>Oral route : LD50 = 800 mg/kg<br>Dermal route : LD50 = 1300 mg/kg<br>EUGENOL:<br>Oral route : LD50 = 2300 mg/kg |
| Skin corrosion / irritation   | May be irritating to skin   |
| Serious eye damage / irritation   | May be irritating to eyes. Prompt rinsing and removal of the substance will avoid damage.   |
| Respiratory or skin sensitization   | Breathing high concentrations of vapor may cause anesthetic effects.  |
| Germ Cell Mutagenicity  | Not listed as mutagenic   |
| Carcinogenicity   | Not listed as carcinogenic  |
| Reproductive toxicity   | Not listed as reprotoxic  |
| STOT-single exposure  | No data available   |
| STOT-repeated exposure  | No data available   |
| Aspiration hazard   | Not Specified   |
| Photo-toxicity  | Not listed as photo-toxic   |
| Other Information   | No additional data available  |
| 11.2 Information on the likely routes of exposure   |   |
| Skin/scalp contact.   |   |
| 11.3 Symptoms related to the physical, chemical, and toxicological characteristics            |   |
| None known. Irritation of the eye if exposed. Redness of the skin if irritated                |   |
| 11.4 Delayed and immediate effects and chronic effects from short-term and long-term exposure |   |
| No Data Available   |   |

## 12. ECOLOGICAL INFORMATION

| 12.1 Toxicity  |  |
|--|--|
| Acute fish toxicity:<br>LC50 / 96 HOUR – No data available<br>Toxicity to aquatic plants – No data available<br>Toxicity to microorganisms – No data available<br>Toxicity threshold – No data available |  |
| 12.2 Persistence & degradability   |  |
| No data available  |  |
| 12.3 Bioaccumulation Potential   |  |
| No data available  |  |

|   |
|---|
| 12.4 Mobility in soil   |
| Not determined  |
| 12.5 Results of PBT and vPvB Assessment                           |
| No data available   |
| 12.6 Other adverse effects  |
| Do not allow product to enter streams, sewers or other waterways. |

### 13. DISPOSAL CONSIDERATIONS

|  |
|--|
| <b>13.1 Waste treatment methods</b>  |
| Containers must be disposed of as hazardous waste. Do not reuse empty containers. Dilute the remaining material and neutralise. Empty residue into a suitable disposal site. Dispose of in accordance with all state and local environmental regulations. This material and its container must be disposed of in a safe way. |

### 14. TRANSPORT INFORMATION

|  |                             |
|--|-----------------------------|
| <b>14.1 UN number</b>  |                             |
| UN No. Road  | Not regulated for transport |
| UN No. SEA   | Not regulated for transport |
| UN No. AIR   | Not regulated for transport |
| <b>14.2 UN proper shipping name</b>  |                             |
| Not classified   |                             |
| <b>14.3 Transport hazard class(es)</b>   |                             |
| ADR/RID/ADN Not regulated for transport  |                             |
| ADR/RID/ADN Class - - -  |                             |
| IMDG Class - - -   |                             |
| ICAO Class/Division - - -  |                             |
| <b>14.4 Packing group</b>  |                             |
| ADR/RID/ADN Packing group Not regulated for transport                                      |                             |
| IMDG Packing group - - -   |                             |
| ICAO Packing group - - -   |                             |
| <b>14.5 Environmental hazards</b>  |                             |
| Do not allow to escape into environment, especially not into waterways, sewers or the sea. |                             |
| <b>14.6 Special precautions for user</b>   |                             |
| EMS: Not allocated   |                             |
| Emergency Action Code: Not allocated   |                             |
| Hazard No. (ADR): Not allocated  |                             |
| Tunnel Restriction Code (E) Not assigned   |                             |
| <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78° and IBC Code</b>          |                             |
| N/A  |                             |

### 15. REGULATORY INFORMATION

## 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

### Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

### Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

### EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

## 15.2 Chemical safety assessment

No additional information available.

## 16. OTHER INFORMATION

|  |   |
|--|---|
| Hazard and/or Precautionary Statements in Full | H302 Harmful if swallowed.<br>H312 Harmful in contact with skin.<br>H317 May cause an allergic skin reaction.<br>H319 Causes serious eye irritation.<br>H341 Suspected of causing genetic defects.<br>H351 Suspected of causing cancer. |
| Other Information                              | None found  |

DISCLAIMER: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.