



CHEMSYNTH CORPORATION

(Exporter of chemical Raw materials)

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Material safety data sheet (MSDS)

1. Chemical Product and Company Information Trade Name : ERUCIC ACID

2. Composition / Ingredients Chemical Composition :

Erucic Acid 90% min. Average Molecular Weight : 336.5 Chemical Identities $\text{CH}_3(\text{CH}_2)_7\text{CH}=\text{CH}(\text{CH}_2)_{11}\text{COOH}$: Synonyms: 13 Docosenoic Acid CAS numbers: 112867

3. Hazard Identification

(Reference: 4) Health Rating : Slight Flammability Rating : Slight Reactivity Rating : Slight Contact Rating : Slight Storage : General

4. Firstaid Measures

(Reference: 4, 5) Ingestion : Drink plenty of water. Skin : Remove contaminated clothing and wash exposed area with plenty of water, followed by soap water. Eye : Irrigate the eyes with plenty of water. Inhalation : Take person into fresh air. * In all of the above cases, get a doctor to check the person concerned

5. Fire hazard and Firefighting Measures

(Reference: 1, 5) Flammability : Flammable and combustible in contact with heat or fire. Means of Extinction : Use water spray, Carbon Dioxide, Dry Chemical or Alcohol Foam. Use water to keep the fire exposed container cool. Flash Point : $> 200^\circ \text{C}$ Auto Ignition : Not Reported Hazardous Combustion Product : None

6. Accidental Release

(Reference: 4, 5) Personal Protection : Use complete protective gear as prescribed in section 8. Leak and Spill Procedures : Remove sources of ignition, ventilate area, sweep up store in a closed container.

7. Handling and Storage Measures

(Reference: 4, 5) Handling Containers : Use full protective gear. Protect containers from physical damage / direct sunlight / water. Storage Conditions of Containers : Use leakproof and sealed drums. Store on pallets in well ventilated dry locations at ambient temperature away from direct sunlight.

8. Exposure Controls and Personal Protection Measures

(Reference: 4, 5) Engineering controls : Use adequate ventilation to keep airborne concentrations low. Avoid inhalation of heated vapours. ACGIH TLV : Not Applicable OSHA PEL : Not Applicable Personal protection : Skin : Rubber Gloves Respiration : Air respirator Eyes : Goggles Feet : Safety Shoes Body : Lab Coat Hygienic precautions : Remove contaminated clothing and wash hands between breaks and at the end of duty hours. Eye washes & Emergency Showers must be located in all work & storage areas.

9. Physical and Chemical Properties

(Reference: 1, 4) Physical State : Liquid > 35 C Odour and Appearance : Pale Yellow liquid with slight characteristic Odour Specific Gravity : 0.8532 at 70° C Boiling Point : 281° C 30 mm Melting point : 30 33 ° C Vapour Pressure : < 1mm at 30 ° C Vapour Density (Air = 1) : >1 Solubility in water (20° C) : Insoluble

10. Reactivity Data

(Reference: 4, 5) Chemical Stability : Product is very stable under the prescribed storage conditions. Incompatibility with other Substances : Strong Oxidising agents. Reactivity and under what conditions : None Hazardous Decomposition : Acrid smoke and irritating fumes of Carbon Oxides when heated BP. Hazardous Polymerisation Products : None.

11. Toxicological Properties

(Reference: 2, 4, 5) Toxicity : Non toxic Skin Contact : Slight Inhalation Acute : None Skin Absorption : None Inhalation Chronic : None Eye Contact : Slight Ingestion : pig > 8 gm/ Kg Dermal : rabbit > 5 gm/Kg Effect of Acute and Chronic Exposure to Material : The extensive use of Erucic Acid in Industry has not been accompanied by any reports of injury Irritancy of Material : Slight Carcinogenicity, Reproductive effects, Terratogenicity and Mutagenicity : None Reported

12. Ecological Information

(Reference: 4, 5) The product should not get into water without treatment. Dissolved in water, the material is easily biodegradable (90%) and will not cause any disturbance in waste water treatment plants. Due to its insolubility in water, larger amounts need to be eliminated by separators such as those typically used for fats and oils. Ecotoxicity : None Reported

13. Waste Disposal

(Reference: 4, 5) Leak and Spill Procedures : Sweep up and store in closed container. Disposal : Stored waste / recovered material, sent for recycle along with crude oils. Any unrecoverable /recyclable

materials should be disposed off in accordance with the local, state and federal regulations. 14. Transport Recommendations (Reference: 4, 5) No special conditions, since it is not a regulated product. However one should observe the usual precautionary measures for transporting chemical cargo.

15. Regulatory requirements

(Reference: 4, 5) According to the data available, the product is not regulated product. However, one should observe prescribed Federal, State and Local measures for dealing with chemicals. The 2 major components are listed on EINECS (EU), TSCA (USA), DSL (Canada), AICS (Australia) and MITI (Japan),Korea & Philippines EINECS No (Main Component only) : Erucic Acid 2040113 Not listed as a carcinogen by NTP, IARC or OSHA

16. Other Information

Sources of information 1. Fatty acids — Klare Markley (1960) 2. Erucic Acid in Food — A Toxicological Review & Risk Assessment , DISCLAIMER The information presented here is believed to be accurate and pertains only to the product when stored in a sealed condition, as prescribed above. The information is given in good faith, but no warranty, express or implied, is made. Users should make their own investigations, to determine the suitability of the above mentioned safety information for their specific applications and processes. Godrej Industries Limited shall in no way be liable for any claims, losses and damages of any third party, or for lost profits, or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, from the use of this product.