

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 05/08/2022 Date of issue: 01/12/2010 Supersedes: 09/01/2020 Version: 7.2 CLM-460

| SECTION 1. Identification of the sub- | stance/mixture and of the company/undertaking | | |
|---|---|--|--|
| 1.1. Product identifier | stance/mixture and or the company/undertaking | | |
| Product form | : Substance | | |
| Substance name | : OLEIC ACID (U-13C18, 98%) | | |
| EC-No. | : 204-007-1 (Unlabeled) | | |
| CAS-No. | : 287100-82-7 | | |
| Product code | : CLM-460 | | |
| Formula | : *CH3(*CH2)7*CH=*CH(*CH2)7*COOH | | |
| Synonyms | : Elainic acid / cis-9-Octadecenoic acid | | |
| 1.2. Relevant identified uses of the subs | tance or mixture and uses advised against | | |
| 1.2.1. Relevant identified uses | | | |
| Main use category | : Professional use | | |
| Industrial/Professional use spec | : For professional use only | | |
| | | | |
| 1.2.2. Uses advised against | | | |
| No additional information available | | | |
| 1.3. Details of the supplier of the safety of | data sheet | | |
| Cambridge Isotope Laboratories, Inc. 50 Frontage Road | | | |
| Andover, MA 01810 | | | |
| USA | | | |
| USA: 1-800-322-1174 Int: 1-978-749-8000 cilsales@isotope.com www.isotope.com | | | |
| | | | |
| Emergency telephone number | | | |
| Emergency numbers: | | | |
| Chemtrec: 1-800-424-9300 (24 hours) International: 1-703-741-5970 (24 hours) | | | |
| SECTION 2: Hazards identification | | | |
| 2.1. Classification of the substance or m | | | |
| | | | |
| Classification according to Regulation (EC) N | | | |
| | Skin Irrit. 2 H315 | | |
| | Eye Irrit. 2 H319 | | |
| Full text of hazard classes and H-statements : see section 16 | | | |
| Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD] | | | |
| Xi; R36/38 | | | |
| Full text of R-phrases: see section 16 | | | |

GHS-US classification Skin Irrit. 2 H315 Eye Irrit. 2 H319 Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects Lungs, Respiratory System.

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| 2.2. Label elements | |
|--|--|
| Labelling according to Regulation (EC) No. 1 | 272/2008 [CLP] |
| Hazard pictograms (CLP) | GHS07 |
| Signal word (CLP) | : Warning |
| Hazard statements (CLP) | : H315 - Causes skin irritation. H319 - Causes serious eye irritation. |
| Precautionary statements (CLP) | P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear eye protection, face protection, protective clothing, protective gloves. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. |
| GHS-US labelling | |
| Hazard pictograms (GHS-US) | GHS07 |
| Signal word (GHS-US) | : Warning |
| Hazard statements (GHS-US) | : H315 - Causes skin irritation. H319 - Causes serious eye irritation. |
| Precautionary statements (GHS-US) | P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear eye protection, face protection, protective clothing, protective gloves. P302+P352 - If on skin: Wash with plenty of water P321 - Specific treatment (see Hazardous component(s) for labelling on this label) P332+P313 - If skin irritation occurs: Get medical advice/attention. P362 - Take off contaminated clothing. |

2.3. **Other hazards** No additional information available

SECTION 3: Composition/information on ingredients 3.1. **Substances** Classification according to Directive 67/548/EEC **Product identifier** % Name (CAS-No.) 287100-82-7 (EC-No.) 204-007-1 (Unlabeled) OLEIC ACID (U-13C18, 98%) 100 Xi; R36/38 Classification according to Name **Product identifier** % Regulation (EC) No. 1272/2008 [CLP] OLEIC ACID (U-13C18, 98%) (CAS-No.) 287100-82-7 100 Skin Irrit. 2, H315 (EC-No.) 204-007-1 (Unlabeled) Eye Irrit. 2, H319

Full text of R- and H-statements: see section 16

| Name | Product identifier | % | GHS-US classification |
|---|-----------------------|-----|---|
| OLEIC ACID (U-13C18, 98%) (Main constituent) | (CAS-No.) 287100-82-7 | 100 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 |

Full text of H-statements: see section 16

Mixtures 3.2.

Not applicable

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| SECTION 4: First aid measures | |
|--|--|
| 4.1. Description of first aid measures | |
| First-aid measures general | : If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area. |
| First-aid measures after inhalation | : When symptoms occur: go into open air and ventilate suspected area. If not breathing, give artificial respiration. Get medical advice/attention. |
| First-aid measures after skin contact | : Wash with plenty of water/ Wash contaminated clothing before reuse. If skin irritation occurs: Wash with plenty of water/, Get immediate medical advice/attention. Get medical advice/attention. Specific treatment (see Hazard pictograms (CLP) on this label). |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. |
| First-aid measures after ingestion | : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention. |
| 4.2. Most important symptoms and effect | |
| Symptoms/effects after inhalation | : May be harmful if inhaled. May cause respiratory irritation. |
| Symptoms/effects after skin contact | : Causes skin irritation. |
| Symptoms/effects after eye contact | : Causes serious eye irritation. |
| Symptoms/effects after ingestion | : May be harmful if swallowed. |
| 4.3. Indication of any immediate medical | attention and special treatment needed |
| No additional information available | |
| SECTION 5: Firefighting measures | |
| 5.1. Extinguishing media | |
| Suitable extinguishing media | : Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). |
| 5.2. Special hazards arising from the sub | stance or mixture |
| No additional information available | |
| 5.3. Advice for firefighters | |
| Firefighting instructions | : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment. |
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| SECTION 6: Accidental release meas | |
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| 6.1. Personal precautions, protective equ 6.1.1. For non-emergency personnel Emergency procedures 6.1.2. For emergency responders | ipment and emergency procedures |
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| SECTION 8: Exposure controls | /personal protection |
|-------------------------------------|--|
| 8.1. Control parameters | |
| No additional information available | |
| 8.2. Exposure controls | |
| Appropriate engineering controls | Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety procedures. |
| Personal protective equipment | : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus. |
| | |
| Materials for protective clothing | : Wear suitable protective clothing and gloves. |
| Hand protection | : Wear suitable protective clothing and gloves. |
| Eye protection | : Wear eye protection. Chemical goggles or face shield with safety glasses. |
| Skin and body protection | : Wear suitable protective clothing. |
| Respiratory protection | : In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator. |
| Environmental exposure controls | : Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |

SECTION 9: Physical and chemical properties

| SECTION 5. Thysical and chemical | |
|--|--|
| 9.1. Information on basic physical and | chemical properties |
| Physical state | : Liquid |
| Appearance | : Liquid |
| Molecular mass | : 300.33 g/mol (Labeled) |
| Colour | : Colourless, Clear |
| Odour | : No data available |
| Odour threshold | : No data available |
| рН | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : 13 - 14 °C (55 - 57 °F) - lit. |
| Freezing point | : No data available |
| Boiling point | : 194 - 195 °C (381 - 383 °F) at 1.6 hPa (1.2 mmHg) - lit. |
| Flash point | : > 113 °C (> 235 °F) - closed cup |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : 1 hPa (1 mmHg) at 176 °C (349 °F) |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Density | : 0.89 g/mL at 25 °C (77 °F) |
| Solubility | : No data available |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |
| 9.2. Other information | |
| | |

No additional information available

| SECTIO | DN 10: Stability and reactivity |
|-------------|-------------------------------------|
| 10.1. | Reactivity |
| No additio | onal information available |
| 10.2. | Chemical stability |
| Stable if s | tored under recommended conditions. |

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| 10.3. Possibility of hazardous reactions | |
|---|---|
| No additional information available | |
| 10.4. Conditions to avoid | |
| Air contact. | |
| 10.5. Incompatible materials | |
| Strong oxidizing agents. | |
| 10.6. Hazardous decomposition products | |
| Carbon oxides (CO, CO2). | |
| SECTION 11: Toxicological information | on |
| 11.1. Information on toxicological effects | |
| Acute toxicity | : Not classified |
| OLEIC ACID (U-13C18, 98%) (287100-82-7) | |
| LD50 oral rat | 74000 mg/kg |
| ATE CLP (oral) | 74000.000 mg/kg bodyweight |
| LD50 Intravenous - Rat - 2.4 mg/kg Remarks | Lungs, Thorax, or Respiration: Acute pulmonary edema. Lungs, Thorax, or Respiration: Other: Changes. |
| LD50 Intravenous - Mouse - 230 mg/kg Remarks | Behavioral: Convulsions or effect on seizure threshold. |
| Additional information | . LD50 Intraperitoneal - Mouse - 282 mg/kg. |
| Skin corrosion/irritation | : Causes skin irritation |
| Serious eye damage/irritation | : Causes serious eye irritation |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Potential adverse human health effects and symptoms | : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. |
| Symptoms/effects after inhalation | : May be harmful if inhaled. May cause respiratory irritation. |
| Symptoms/effects after skin contact | : Causes skin irritation. |
| Symptoms/effects after eye contact | : Causes serious eye irritation. |
| Symptoms/effects after ingestion | : May be harmful if swallowed. |

| SECTI | ON 12: Ecological information | |
|----------|------------------------------------|---|
| 12.1. | Toxicity | |
| Ecology | - general : | The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| OLEIC | ACID (U-13C18, 98%) (287100-82-7) | |
| LC50 fi | ish 1 | 205 mg/l Pimephales promelas (fathead minnow) - 96 h |
| | | |
| 12.2. | Persistence and degradability | |
| No addit | ional information available | |
| 12.3. | Bioaccumulative potential | |
| No addit | ional information available | |
| 12.4. | Mobility in soil | |
| No addit | ional information available | |
| 12.5. | Results of PBT and vPvB assessment | |
| No addit | ional information available | |
| 12.6. | Other adverse effects | |
| Other ad | tverse effects : | Disposal must be done according to official regulations. May cause long lasting harmful effects to aquatic life. |

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| SECTION 13: Disposal consideration | IS |
|---|--|
| 13.1. Waste treatment methods | |
| Regional legislation (waste) | : Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations. |
| Product/Packaging disposal recommendations: | : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. |
| Ecology - waste materials | : Dispose of as unused product. |
| SECTION 14: Transport information | |
| In accordance with ADR / RID / IMDG / IATA / A | DN |
| 14.1. UN number | |
| Not applicable | |
| 14.2. UN proper shipping name | |
| Not applicable | |
| | |
| 14.3. Additional information | |
| Other information | : No supplementary information available. |
| Special transport precautions | : Not classified as dangerous in the meaning of transport regulations. |
| Overland transport | |
| No additional information available | |
| Transport by see | |
| Transport by sea No additional information available | |
| | |
| Air transport No additional information available | |
| | |
| 14.4. Environmental hazards | |
| Other information | : No supplementary information available. |
| 14.5. Special precautions for user | |
| Special transport precautions | : Not classified as dangerous in the meaning of transport regulations. |
| | |

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

| SECTION 15: Regulatory information | |
|---|---|
| 15.1. US Federal regulations | |
| OLEIC ACID (U-13C18, 98%) (287100-82-7) | |
| SARA Section 302 Threshold Planning Quantity (TPQ) | Not subject to reporing requirements of the United States SARA Section 302. |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |
| SARA Section 313 - Emission Reporting | Not subject to reporing requirements of the United States SARA Section 313. |

15.2. International regulations

CANADA

| OLEIC ACID (U-13C18, 98%) (287100-82-7) | |
|---|---|
| Listed on the Canadian DSL (Domestic Substances List) | Τ |

15.2.1. National regulations

No additional information available

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| 15.3. US State regulations | | |
|---|--|--|
| OLEIC ACID (U-13C18, 98%)(287100-82-7) | | |
| U.S California - Proposition 65 - Carcinogens List | No | |
| U.S California - Proposition 65 - Developmental Toxicity | No | |
| U.S California - Proposition 65 - Reproductive Toxicity - Female | No | |
| U.S California - Proposition 65 - Reproductive Toxicity - Male | No | |
| State or local regulations | RTK - U.S Pennsylvania - RTK (Right to Know) List RTK - U.S New Jersey - Right to Know Hazardous Substance List | |

SECTION 16: Other information

Other information

This product is not radioactive. The data given for this product are those of the corresponding : unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-, H- and EUH-statements:

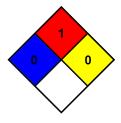
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
|---------------|---|
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| R36/38 | Irritating to eyes and skin |
| Xi | Irritant |

NFPA health hazard

NFPA fire hazard

NFPA reactivity

- : 0 Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials. : 1 - Materials that must be preheated before ignition can
- occur.
- : 0 Material that in themselves are normally stable, even under fire conditions.



HMIS III Rating Haalth

| Health | : 0 Minimal Hazard - No significant risk to health |
|--------------|--|
| Flammability | : 1 Slight Hazard |
| Physical | : 0 Minimal Hazard |

CIL Substance SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product