Glory Global
CO.,LTD

Material Safety Data Sheet

Product name	Ricinoleic acid

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product name	Ricinoleic acid
1.2. CAS-No.	141-22-0
1.3. Relevant identified uses of the substance or mixture and uses advised against	
Identified uses	Laboratory chemicals, Synthesis of substances
1.4. Details of the supplier of the safety data sheet	
Company	Glory Global CO.,LTD
Address	C-208, 10, Nowon-ro 15-gil, Nowon-gu, Seoul, Korea
Emergency Phone	+82 2 6223 0862

2. Hazards identification

2.1. Classification of the substance or mixture	Not a hazardous substance or mixture.
2.2. GHS Label elements, including precautionary statements	Not a hazardous substance or mixture.
2.3, Hazards not otherwise classified (HNOC) or not covered bv GHS	None

3. Composition/information on ingredients

3.1. Synonyms	(R)-12-Hydroxy-cis-9-octadecenoic acid 12-Hydroxyoleic acid
3.2. EC No.	141-22-0
3.3. CAS-No.	205-470-2
3.4. Formula	C18H34O3
3.5. Molecular weight	298.46 g/mol
No components need to be disclosed according to the applicable regulations.	

4. First aid measures

4.1. Description of first aid measures	
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration
In case of skin contact	Wash off with soap and plenty of water.
In case of eye contact	Flush eyes with water as a precaution.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water.
4.2. Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
4.3. Indication of any immediate medical attention and	No data available

5. Firefighting measures

5.1. Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2. Special hazards arising from the substance or mixture	Carbon oxides
5.3. Advice for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.
5.4. Further information	No data available

6. Accidental release measures

6.1. Personal precautions, protective equipment and	Avoid breathing vapours, mist or gas. For personal protection see section 8.
6.2. Environmental precautions	No special environmental precautions required.
6.3. Methods and materials for containment and cleaning up	Keep in suitable, closed containers for disposal.
6.4. Reference to other sections	For disposal see section 13.

7. Handling and storage

7.1. Precautions for safe handling	For precautions see section 2.2.
7.2. Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature -20 °C Storage class (TRGS 510): 10: Combustible liquids
7.3. Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters	Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Appropriate engineering controls	General industrial hygiene practice.
Personal protective equipment	
a) Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)
b) Skin protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
c) Body Protection	Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
d) Respiratory protection	Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
e) Control of environmental exposure	No special environmental precautions required.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Form: very faint, viscous liquid Colour: dark brown
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	224 °C (435 °F) - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	0.94 g/cm3 at 20 °C (68 °F)
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
9.2. Other safety information	No data available

10. Stability and reactivity

10.1. Reactivity	No data available
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	No data available
10.4. Conditions to avoid	No data available
10.5. Incompatible materials	Strong oxidizing agents
10.6. Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available In the event of fire: see section 5

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	No data available Inhalation: No data available Dermal: No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	

a) IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
b) NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
c) OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information	RTECS: VJ3150000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

12.1. Toxicity	No data available
12.2. Persistence and degradability	No data available
12.3. Bioaccumulative potential	No data available
12.4. Mobility in soil	No data available
12.5. Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6. Other adverse effects	No data available

13. Disposal considerations

13.1 Waste treatment methods

Product	Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	Dispose of as unused product.

14. Transport information

14.1. DOT (US)	Not dangerous goods
14.2. IMDG	Not dangerous goods
14.3. IATA	Not dangerous goods

15. Regulatory information

15.1. SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
15.2. SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
15.3. SARA 311/312 Hazards	No SARA Hazards
15.4. Massachusetts Right To Know Components	No components are subject to the Massachusetts Right to Know Act.
15.5. Pennsylvania Right To Know Components	
Ricinoleic acid	CAS-No. 141-22-0 Revision Date
15.6. New Jersey Right To Know Components	
Ricinoleic acid	CAS-No. 141-22-0 Revision Date
15.7. California Prop. 65 Components	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other information

16.1. Further information