SAFETY DATA SHEETS

SECTION 1: Identification

1.1 GHS Product identifier

Product name: oleic acid

1.2 Other means of identification

Product number: -

Other names: oleicacidamide-heptaglycolether; adogen73

1.3 Recommended use of the chemical and restrictions on use

Indentified uses: industrial and scientific research use.

Uses advised against: no data available

1.4 Supplier’ s details

Company: Dexu New Material (Guangzhou) Co., Ltd;

Address: Provided by dxchem.cn.For reference only;

Telephone: 020-82118890;

1.5 Emergency phone number

Emergency phone number: Provided by dxchem.cn.For reference only;

Service hours: Monday to Friday，9am-5pm (Standard time zone:UTC/GMT+8 hours)

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Not classified

2.2 GHS label elements,including precautionary statements

Pictogram(s): No symbol

Signal word: No Signal word

Hazard statement(s): none

Precautionary statement(s)

Prevention: none

Response: none

Storage: none

Disposal: none

2.3 Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Oleic acid	Oleic acid	112-80-1	204-007-1	100%

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled

Fresh air,rest.

Following skin contact

Rinse and then wash skin with water and soap.

Following eye contact

First rinse with plenty of water for several minutes(remove contact lenses if easily possible),then refer for medical attention.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2 Most important symptoms/effects , acute and delayed

Industrial use of compound involves no known hazards. Ingestion causes mild irritation of mouth and stomach. Contact with eyes or skin causes mild irritation.

4.3 Indication of immediate medical attention and special treatment needed ,if necessary

Immediate first aid :Ensure that adequate decontamination has been carried out. If patient is not breathing,start artificial respiration , preferably with a demand-valve resuscitator , bag-valve-mask device , or pocket mask,as trained . Perform CPR asnecessary. Immediately flush contaminated eyes wiyh gently flowing water. Do not induce vomiting. If vomiting occurs,lean patient forward or place on left side (head-down position,if possible)to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature.Obtain medical attention. Organic acids and related compounds.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, dry chemical, foam or carbon dioxide. Water or foam may cause frothing. Water spray may be used to flush spills away from exposures.

5.2 Specific hazards arising from the chemical

The chemical is combustible.

5.3 Special protective actions for fire-fighters

Use water spray, powder, foam, carbon dioxide.

SECTION 6: Accidental release measures

6.1 Personal precautions,protective equipment and emergency peocedures

Collect leaking and spilled liquid in covered containers as far as possible. Wash away remainder with plenty of water.

6.2 Environmental precautions

Collect leaking and spilled liquid in covered containers as far as possible. Wash away remainder with plenty of water.

6.3 Methods and materials for containment and cleaning up

Cover with soda ash or sodium bicarbonate. Mix and add water. Neutralize and drain into a drain with sufficient water.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

No open flames. Handling in a well ventilated place.Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by

electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Separated from strong bases. Keep containers closed and store in cool and dark places.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment

Eye/face protection

Water safety spectacles.

Skin protection

Protective gloves

Respiratory protection

Use local exhaust

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Oleic acid is a colorless to pale yellow liquid with a mild odor. Floats on water.
Colour	Colorless or nearly colorless liq (above 5-7 deg C)
Odour	PECULIAR LARD-LIKE ODOR
Melting point/freezing point	22℃（lit）
Boiling point or initial boiling point and boiling range	194-195℃/1.2mmHg (lit)
Flammability	Combustible
Lower and upper explosion limit/flammability limit	no data available
Flash point	＞113℃
Auto-ignition temperature	685。F
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	25.6 cP at 30 deg C
Solubility	Insoluble
Partition coefficient n-octanol/water	log Kow=7.64
Vapour presure	52 mm Hg (37℃)
Density and/or relative density	0.887g/mL at 52℃
Relative vapour density	1.03（vs air）
Particle characteristics	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

The substance is a weak acid.

10.2 Chemical stability

On exposure to air, especially when impure, it oxidizes & acquires yellow to brown color & rancid odor.

10.3 Possibility of hazardous reactions

Combustible oleic acid is a carboxylic acid. Combustible acids donate hydrogen ions if a base is a

present to accept them. They react in this way with all bases, both organic and inorganic. Their reactions with bases, called “neutralizations”, are accompanied by the revolution of substantial amounts of heat. Neutralization between an acid and a base produces water lius a salt.Carboxylic acids with six or fewer carbon atoms are freely or moderately soluble in water; those with more than six carbons are slightly soluble in water .Soluble carboxylic acid dissociate to an extent in water to yield hydrogen ions.The pH of solutions if carboxylic acids is therefore less trhan7.0. Many insoluble carboxylic acids react rapidly with aqueous solutions containing a chemiacl base and dissolve as the neutralization generates a soluble salt. Carboxylic acids in aqueous solution and liquid or molten carboxylic acids can react with active metals to form gaseous hydrogen and a metal salt.Such reactions occur in principle for solid Carboxylic acids as well, but are slow if the solid acid remains dry.Even “insoluble”Carboxylic acids may absorb enough water from the air and dissolve sufficiently in it to corrode or dissolve iron, steel, and aluminum parts and containers. Carboxylic acids,like other acids, react with cyanide salts to generate gaseous hydrogen cyanide. Flammable and/or toxic gases and heat are generated by the reaction of carboxylic acids with diazo compounds, dithiocarbamates, isocyanates, mercaptans, nitrides, and sulfides. Carboxylic acids, especially in aqueous solution, also react with sulfites,nitrites, thiosulfates (to give H_2S and SO_3) ,dithionites (SO_2), to generate flammable and/or toxic gases and heat. Their reaction with carbonates and bicarbonates generates a harmless gas (carbon dioxide) but still heat. Like other organic compounds, carboxylic acids can be oxidized by strong oixdizing agents and reduced by strong reducing agents, These reactions generate heat. A wide variety of products is possible. Like other acids, carboxylic acids may initiate polymerization reactions; like other acids, they often catalyze (increase the rate of) chemical reactions.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

The improved preparation of 1,4-octadecanolactone involves heating oleic acid (or other C18 acids) with 70% perchloric acid to 115 deg C. This is considered to be a potentially dangerous method.

10.6 Hazardous decomposition products

When heated to decomposition it emits acrid smoke and irritating fumes.

SECTION 11: Toxicological information

Acute toxicity

Oral: LD50 Rat oral 74 g/kg
Inhalation : no data available
Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

The substance is mildly irritating to the eyes and skin.

STOT-repeated exposure

no data available

Aspiration hazard

Evaporation at 20 ℃ is negligible; a nuisance-causing concentration of airborne particles can, however, be reached quickly on spraying.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish: LC50; Species: Pimephales promelas (Fathead minnow, juvenile 4-8 wk, length 1.1-3.1 cm); Conditions: freshwater, static, 18-22 deg C, dissolved oxygen ＜ or＝4.0mg/L; Concentration: 1000000ug/L for 1 hr
Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available
Toxicity to microorganisms: no data available

12.2 Presistence and degradability
no data available

12.3 Bioaccumulative potential
An estimated BCF of 10 was calculated in fish for oleic acid, using a log Kow of 7.64 and a regression-derived equation. According to a classification scheme, this BCF suggests the potential for bioconcentration in aquatic organisms is low.

12.4 Mobility in soil
no data available

12.5 Other adverse effects
no data available

SECTION 13: Disposal considerations

13.1 Disposal methods
Product

The material can be disposed of by remove to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

14.1 UN Number
14.2 UN Proper Shipping Name
14.3 Transport hazard class(es)
14.4 Packing group, if applicable
14.5 Environmental hazards
ADR/RID: No IMDG: No IATA:No

14.6 Special precautions for user
no data available

14.7 Transport in bulk according to IMO instruments
no data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
Oleic acid	Oleic acid	112-80-1	204-007-1
European Inventory of Existing Commercial Chemical Substances			Listed
EC Inventory			Listed
United States Toxic Substance Control Act Inventory			Listed
China Catalog of Hazardous chemicals 2015			Not listed
New Zealand Inventory of Chemicals			Listed
Philippines Inventory of Chemicals and Chemical Substances			Listed
Vietnam National Chemical Inventory			Listed
Chinese Chemical Inventory of Existing Chemical Substances			Listed
Korea Existing Chemicals List			Listed

SECTION 16: Other information

Information on revision

Create Date July 15,2021

Revision Date July 15,2021

Other information

The substance can be absorbed by ingestion, but no harmful effects have been found.

Any questions regarding this SDS, Please send your inquiry to service@dxchem.cn