

MATERIAL SAFETY DATA SHEET

1,2-Dioctanoyl-sn-glycerol

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Cayman Chemical Company
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108

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1. Product and Company Identification

Product Code: 62225
Product Name: 1,2-Dioctanoyl-sn-glycerol
Manufacturer Information
Company Name: Cayman Chemical Company
Emergency Contact: Cayman Chemical Company (800)364-9897
Information: Cayman Chemical Company (734)971-3335
Chemical Family: PAFs & Polar Lipids
CAS Number: 60514-48-9
RTECS #: RH0764500
Synonyms: 1,2-bis(O-octanoyl)-sn-glycerol

2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. 1,2-Dioctanoyl-sn-glycerol	60514-48-9	10.0 %	No data.	No data.	No data.
2. Acetonitrile	75-05-8	90.0 %	8H TWA:40ppm (70 mg/m3)	20 ppm	No data.

Hazardous Components (Chemical Name)	RTECS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. 1,2-Dioctanoyl-sn-glycerol	NA	No data.	No data.	No data.	No data.
2. Acetonitrile	AL7700000	No data.	No data.	No data.	No data.

3. Hazards Identification

Emergency Overview: No data available.
Route(s) of Entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection
Potential Health Effects (Acute and Chronic): Can cause fatal cyanide poisoning.
Material is irritating to the mucous membranes and upper respiratory tract.
May be fatal if swallowed, inhaled, or absorbed through skin.
May cause eye, skin, or respiratory system irritation.
Several hours may elapse from exposure to onset of symptoms.
The toxicological properties of this compound have not been fully evaluated.
LD 50/LC 50: Please refer to Section 11.
Signs and Symptoms Of Exposure: Effects of overexposure may be delayed.
High concentrations may produce flushing, headache, nausea, vomiting, respiratory depression, weakness, blood changes, thyroid changes, irregular heart beat, abdominal pain, suffocation, convulsions, shock, unconsciousness and death.
Irritating to the skin, eyes, nose, throat, and respiratory tract.
Long term exposures may affect liver, kidneys and central nervous system.
Reddening of the eyes and pupil dilation are symptoms of cyanide poisoning. Blue discoloration of the skin, Cyanosis, tends to be associated with severe cyanide poisonings.
Medical Conditions Generally Aggravated By Exposure: Those with history of central nervous system, heart or lung diseases, or liver, kidney, or thyroid problems may be more susceptible to the effects of this substance.

4. First Aid Measures

Emergency and First Aid Procedures: If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
Do not give direct mouth-to-mouth if victim ingested or inhaled this substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed

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to do so by medical personnel.
 In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.
 In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

Note to Physician: Acetonitrile is metabolized to cyanide. Patients with significant exposures must be observed for signs of cyanide poisoning and treated accordingly.

5. Fire Fighting Measures

Flash Pt: 2.00 C Method Used: CC
Explosive Limits: LEL: 4.4% at 25.0 C UEL: 16% at 25.0 C
Autoignition Pt: 524.00 C
Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
 Note: Flammable as diluted in acetonitrile
Flammable Properties and Hazards: Can release vapors that form explosive mixtures at temperatures at or above the flash point.
 Contact with strong oxidizers may cause fire.
 Container explosion may occur under fire conditions.
 Emits toxic and corrosive fumes under fire conditions.
 Flammable liquid.
 Vapors can travel to a source of ignition and flash back.
Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.
Unsuitable Extinguishing Media: No data available.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled: Wear a NIOSH/MSHA approved self-contained breathing apparatus and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
 Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.
 After removal, ventilate contaminated area and flush thoroughly with water.

7. Handling and Storage

Hazard Label Information: Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation.
 Wash thoroughly after handling.
Precautions To Be Taken in Handling: Avoid breathing (dust, vapor, mist, gas).
 Avoid contact with skin and eyes.
 Avoid prolonged or repeated exposure.
 Do not reuse this container.
 Keep away from sources of ignition.
 Use with adequate ventilation.
 Wash thoroughly after handling.
Precautions To Be Taken in Storing: Keep tightly closed.
 Store at correct temperature.

8. Exposure Controls/Personal Protection

Protective Equipment Summary - Hazard Label Information: Eye wash station in work area Lab coat Protective gloves Safety glasses Safety shower in work area Vent Hood
Respiratory Equipment (Specify Type): No data available.
Eye Protection: Safety glasses
Protective Gloves: Use appropriate hand protection based on solvent.
Other Protective Clothing: Lab coat

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Supercedes Revision: 06/27/1996

Engineering Controls (Ventilation etc.):	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Work/Hygienic/Maintenance Practices:	Do not take internally. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Wash thoroughly after handling.

9. Physical and Chemical Properties

Physical States:	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid
Melting Point:	No data.
Boiling Point:	No data.
Autoignition Pt:	524.00 C
Flash Pt:	2.00 C Method: CC
Explosive Limits:	LEL: 4.4% at 25.0 C UEL: 16% at 25.0 C
Specific Gravity (Water = 1):	No data.
Vapor Pressure (vs. Air or mm Hg):	73 MM_HG at 20.0 C
Vapor Density (vs. Air = 1):	No data.
Evaporation Rate (vs Butyl Acetate=1):	No data.
Solubility in Water:	> 250 ug/ml* at 25.0 C
Other Solubility Notes:	*PBS pH 7.2, sol. in EtOH, DMSO, & DMF
Percent Volatile:	N.A.
Corrosion Rate:	No data.
Formula:	C19H36O5
Molecular Weight:	344.50
pH:	No data.
Appearance and Odor:	A clear, colorless liquid

10. Stability and Reactivity

Stability:	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>
Conditions To Avoid - Instability:	sensitive to heat protect from ignition sources
Incompatibility - Materials To Avoid:	acids bases chlorosulfonic acid oleum oxidizing materials n-fluoro compounds nitrating agents perchlorates sulfuric acid
Hazardous Decomposition Or Byproducts:	carbon dioxide carbon monoxide cyanide nitrogen oxides sulfur oxides
Hazardous Polymerization:	Will occur <input type="checkbox"/> Will not occur <input checked="" type="checkbox"/>
Conditions To Avoid - Hazardous Polymerization:	No data available.

11. Toxicological Information

Toxicological Information:	The toxicological effects of this compound have not been thoroughly studied. Toxicity Data - Acetonitrile: Oral LD50 (rat):2460 mg/kg Skin LD50 (rabbit):1250 uL/kg Inhalation LD50 (rat):7551 ppm/8H
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Chronic Toxicological Effects: Acetonitrile - Investigated as a tumorigen, mutagen, and reproductive effector.
 1,2-Dioctanoyl-sn-glycerol - Investigated as a mutagen

Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.
 See actual entry in RTECS for complete information.
 Acetonitrile RTECS Number: AL7700000
 1,2-Dioctanoyl-sn-glycerol RTECS Number: RH0764500

Carcinogenicity/Other Information: No data available.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

Ecological Information: Runoff from fire control or dilution water may cause pollution.

13. Disposal Considerations

Waste Disposal Method: Dispose in accordance with local, state and federal regulations.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name: Acetonitrile

DOT Hazard Class: 3

DOT Hazard Label: FLAMMABLE LIQUID

UN/NA Number: 1648

DOT Packing Group: II

Additional Transport Information: Transport in accordance with local, state, and federal regulations.

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. 1,2-Dioctanoyl-sn-glycerol	60514-48-9	No	No	No	No
2. Acetonitrile	75-05-8	No	Yes 5000 LB	Yes	No

US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. 1,2-Dioctanoyl-sn-glycerol	60514-48-9	No	No	No	No
2. Acetonitrile	75-05-8	HAP	No	8A PAIR	No

16. Other Information

Company Policy or Disclaimer

For research use only, not for human or veterinary clinical use.

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