

MATERIAL SAFETY DATA SHEET

N-Oleoyl Taurine

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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: 10005609
Product Name: N-Oleoyl Taurine
Manufacturer Information
Company Name: Cayman Chemical Company
Emergency Contact: Cayman Chemical Company (800)364-9897
Information: Cayman Chemical Company (734)971-3335
Chemical Family: Lipid Neurotransmitters
CAS Number: 52514-04-2
Synonyms: 2-[(1-oxo-9Z-octadecenyl)amino]-ethanesulfonic acid

2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	OSHA PEL	ACGIH TLV	Other Limits
1. N-Oleoyl Taurine	52514-04-2	1.0 %	No data.	No data.	No data.
2. Dimethyl sulfoxide, anhydrous	67-68-5	99.0 %	No data.	No data.	No data.
Hazardous Components (Chemical Name)	RTECS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. N-Oleoyl Taurine	NA	No data.	No data.	No data.	No data.
2. Dimethyl sulfoxide, anhydrous	PV6210000	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): The hazards identified with this product are those associated with the solvent(s). Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body.
Irritating to the skin, eyes, nose, throat, and respiratory tract.
Material may be irritating to the mucous membranes and upper respiratory tract.
May be harmful by inhalation, ingestion, or skin absorption.
May cause eye, skin, or respiratory system irritation.
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: No data available.

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.
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 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.

5. Fire Fighting Measures

Flash Pt:	87.00 C Method Used: CC
Explosive Limits:	LEL: 3.5% at 25.0 C UEL: 42% at 25.0 C
Autoignition Pt:	301.00 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: combustible as diluted in dimethyl sulfoxide
Flammable Properties and Hazards:	Can release vapors that form explosive mixtures at temperatures at or above the flashpoint. Those vapors include formaldehyde, methyl mercaptan, and sulfur dioxide. Combustible liquid. Container explosion may occur under fire conditions. Emits toxic fumes under fire conditions. May cause exothermic reaction when combined with certain chemicals. On mixing with potassium permanganate it will flash instantaneously. Reacts violently with other acids. 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. Avoid release into the environment - very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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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 DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not reuse this container. Hygroscopic. 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 Latex disposable gloves Safety glasses Safety shower in work area Vent Hood
Respiratory Equipment (Specify Type):	No data available.
Eye Protection:	Safety glasses
Protective Gloves:	Latex disposable gloves
Other Protective Clothing:	Lab coat

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:	301.00 C
Flash Pt:	87.00 C Method: CC
Explosive Limits:	LEL: 3.5% at 25.0 C UEL: 42% at 25.0 C
Specific Gravity (Water = 1):	No data.
Vapor Pressure (vs. Air or mm Hg):	0.42 MM_HG at 20.0 C
Vapor Density (vs. Air = 1):	No data.
Evaporation Rate (vs Butyl Acetate=1):	No data.
Solubility in Water:	No data.
Percent Volatile:	No data.
Corrosion Rate:	No data.
Formula:	C20H39NO4S
Molecular Weight:	389.60
pH:	No data.
Appearance and Odor:	A clear, colorless solution

10. Stability and Reactivity

Stability:	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>
Conditions To Avoid - Instability:	protect from moisture
Incompatibility - Materials To Avoid:	acid chlorides acid halides cyanuric chloride diborane iodine pentafluoride magnesium perchlorate methyl bromide nitrogen periodate perchloric acid periodic acid phosphorus halides phosphorus trichloride phosphorus trioxide potassium permanganate silicon tetrachloride silver fluoride sodium hydride strong acids strong oxidizing agents strong reducing agents thionyl chloride
Hazardous Decomposition Or Byproducts:	carbon dioxide carbon monoxide formaldehyde methyl mercaptan sulfur dioxide sulfur oxides

Hazardous Polymerization: Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Polymerization: No data available.

11. Toxicological Information

Toxicological Information: Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body.
The toxicological effects of this compound have not been thoroughly studied.

DMSO - Toxicity Data:

Inhalation (rat) LC50:40,250 ppm
Oral (rat) LD50:3,300 mg/kg
Skin (rat) LD50:40,000 mg/kg
Subcutaneous (rat) LD50:12 g/kg
Intravenous (rat) LD50:5,360 mg/kg
Skin (rabbit) LD50:>5,000 mg/kg
Oral (mouse) LD50:7,920 mg/kg
Subcutaneous (mouse) LD50:14 g/kg
Skin (mouse) LD50:50,000 mg/kg
Intraperitoneal (mouse) LD50:2,500 mg/kg
Oral (dog) LD50:>10,000 mg/kg

Chronic Toxicological Effects: DMSO - Target Organ Data:
Effects on embryo or fetus (fetal death)
Effects on embryo or fetus (fetotoxicity)
Effects on fertility (abortion)
Effects on fertility (litter size)
Effects on fertility (pre-implantation mortality)
Effects on fertility (post-implantation mortality)
Specific developmental abnormalities (central nervous system)
Specific developmental abnormalities (musculoskeletal system)
Specific developmental abnormalities (craniofacial, including nose and tongue)
Specific developmental abnormalities (other developmental abnormalities)

Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.
See actual entry in RTECS for complete information.
DMSO RTECS Number: PV6210000

Carcinogenicity/Other Information: No data available.
Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

Ecological Information: Avoid release into the environment - very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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: Combustible liquid, n.o.s.
DOT Hazard Class: Combustible liquid
DOT Hazard Label: Combustible liquid, n.o.s.
UN/NA Number: 1993

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Packing Group:

III

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. N-Oleoyl Taurine	52514-04-2	No	No	No	No
2. Dimethyl sulfoxide, anhydrous	67-68-5	No	No	No	No

US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. N-Oleoyl Taurine	52514-04-2	No	No	No	No
2. Dimethyl sulfoxide, anhydrous	67-68-5	No	No	Inventory	No

16. Other Information

Company Policy or Disclaimer

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

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.