



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>Caprylocaproyl Polyoxyglycerides</b>	
<b>Other means of identification</b>		
<b>Catalog number</b>	1091505	
<b>Recommended use</b>	Specified quality tests and assay use only.	
<b>Recommended restrictions</b>	Not for use as a drug. Not for administration to humans or animals.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufacturer</b>		
<b>Company name</b>	U. S. Pharmacopeia	
<b>Address</b>	12601 Twinbrook Parkway Rockville MD 20852-1790 United States	
<b>Telephone</b>	RS Technical Services	301-816-8129
<b>Website</b>	www.usp.org	
<b>E-mail</b>	RSTECH@usp.org	
<b>Emergency phone number</b>	CHEMTREC within US & Canada	1-800-424-9300
	CHEMTREC outside US & Canada	+1 703-527-3887

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
<b>Environmental hazards</b>	Not classified.	
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger	
<b>Hazard statement</b>	Causes severe skin burns and eye damage.	
<b>Precautionary statement</b>		
<b>Prevention</b>	Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.	
<b>Response</b>	Immediately call a poison center/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
<b>Storage</b>	Store locked up.	
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.	
<b>Supplemental information</b>	None.	

## 3. Composition/information on ingredients

### Mixture

Material name: Caprylocaproyl Polyoxyglycerides  
1091505 Version #: 02 Revision date: 03-04-2019 Issue date: 03-04-2019

Chemical name	Common name and synonyms	CAS number	%
Caprylic Acid	1-Heptanecarboxylic acid	124-07-2	50 - < 80
Capric Acid	Decanoic Acid	334-48-5	20 - < 50
Glycerol	Glycerolum Glycerol	56-81-5	< 5
Lauric Acid	Laurostearic acid Dodecanoic acid	143-07-7	< 3
Caproic Acid		142-62-1	< 2
Myristic Acid	1-tridecanecarboxylic acid	544-63-8	< 1

#### 4. First-aid measures

<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. For minor skin contact, avoid spreading material on unaffected skin.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.
<b>General information</b>	Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposures. In the United States, the national poison control center phone number is 1-800-222-1222. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen if available. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk. As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Wear appropriate personal protective equipment. Avoid inhalation of vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Absorb spillage with suitable absorbent material. Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

As a general rule, when handling USP Reference Standards, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly. Select and use containment devices and personal protective equipment based on a risk assessment of material potency and exposure potential.

### Conditions for safe storage, including any incompatibilities

Store in tight container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.

## 8. Exposure controls/personal protection

### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Glycerol (CAS 56-81-5)	PEL	5 mg/m <sup>3</sup>	Respirable fraction.
		15 mg/m <sup>3</sup>	Total dust.

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

For laboratory operations, use good technique and limit open handling. Control exposures to below the occupational exposure level (if available). Select and use containment devices and personal protective equipment based on a risk assessment of exposure potential. Cover all containers for solutions and slurries while being transferred.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

#### Skin protection

##### Hand protection

Wear nitrile or other impervious gloves if skin contact is possible. When the material is dissolved or suspended in an organic solvent, wear gloves that provide protection against the solvent.

##### Other

Wear lab coat. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use. Do not wear protective garments in common areas (e.g., cafeterias) or out-of-doors.

#### Respiratory protection

Respirators are generally not required for laboratory operations. Choose respiratory protection appropriate to the task and the level of existing engineering controls.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Handling practices in this SDS are recommendations for laboratory use of reference standards. Procedures for any other uses or quantities should be determined after an appropriate assessment.

## 9. Physical and chemical properties

### Appearance

Appearance descriptions are general information and not specific to any USP lot.

#### Physical state

Liquid.

#### Form

Oily. Liquid.

#### Color

Colorless.

### Odor

Faint odor.

### Odor threshold

Not available.

### pH

Not available.

### Melting point/freezing point

Not available.

### Initial boiling point and boiling range

Not available.

### Flash point

< 338.0 °F (< 170.0 °C)

### Evaporation rate

Not available.

### Flammability (solid, gas)

Not applicable.

### Upper/lower flammability or explosive limits

#### Flammability limit - lower (%)

Not available.

<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Specific gravity</b>	1.06 - 1.07

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Acids. Bases. Reducing agents.
<b>Hazardous decomposition products</b>	Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Knowledge about health hazard is incomplete.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Knowledge about health hazard is incomplete.
<b>Symptoms related to the physical, chemical, and toxicological characteristics</b>	Acute eye irritation/corrosion. Headache. Dizziness. Confusion. Gastrointestinal disturbances. Thirst. Dry mouth. Cough. Shortness of breath.

### Information on toxicological effects

#### Acute toxicity

Components	Species	Test Results
Capric Acid (CAS 334-48-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 5000 mg/kg
<b>Oral</b>		
LD50	Rat	3320 mg/kg
Caproic Acid (CAS 142-62-1)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	585 mg/kg
<b>Oral</b>		
LD50	Rat	1904 mg/kg

Components	Species	Test Results
Caprylic Acid (CAS 124-07-2)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	> 5000 mg/kg
<b>Oral</b>		
LD50	Rat	10080 mg/kg
Glycerol (CAS 56-81-5)		
<b>Oral</b>		
LD50	Mouse	4090 mg/kg
	Rat	12600 mg/kg
Lauric Acid (CAS 143-07-7)		
<b><u>Acute</u></b>		
<b>Oral</b>		
LD50	Rat	12000 mg/kg
Myristic Acid (CAS 544-63-8)		
<b><u>Acute</u></b>		
<b>Oral</b>		
LD50	Rat	> 10000 mg/kg
<b>Skin corrosion/irritation</b>	Causes severe skin burns.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Local effects</b>		
Capric Acid		100 % Skin irritation Result: Irritant Species: Rabbit Test Duration: 24 hours Severity: Severe.
Caproic Acid		50 % v/v Bovine Corneal Opacity and Permeability Test Result: Corrosive. Species: Cattle
Glycerol		500 mg Eye irritant, (Draize) Result: Mild. Species: Rabbit Test Duration: 24 hours 500 mg Skin irritant, (Draize) Result: Mild. Species: Rabbit Test Duration: 24 hours
Caprylic Acid		500 mg Skin irritation Result: Moderate. Species: Rabbit Test Duration: 24 hours
Glycerol		Eye irritant Result: Negative. Species: Human
Capric Acid		Eye irritation Result: Corrosive. Species: Rabbit
Lauric Acid		Eye irritation Result: Mild. Species: Rabbit
Caprylic Acid		Eye irritation Result: Severe.
Caproic Acid		Eye irritation test Result: Severe. Species: Rabbit
Caprylic Acid		Eye irritation, 5% solution Result: Severe: corneal injury. Species: Rabbit

**Local effects**

Glycerol	Skin irritant, (50% solution) Result: Negative. Species: Human
Caprylic Acid	Skin irritation Result: Corrosive. Species: Rabbit
Lauric Acid	Skin irritation Result: Mild. Species: Rabbit
Caproic Acid	Skin irritation test, (OECD 404) Result: Corrosive. Species: Rabbit
Capric Acid	Skin irritation, 1.0 M solution, applied for 8 days. Result: Irritant. Species: Human
Myristic Acid	Standard Draize test (100 mg) Result: Irritant Species: Rabbit Organ: Eyes Severity: Mild Standard Draize test (75 mg) Result: Irritant Species: Human Organ: Skin Test Duration: 3 days Severity: Moderate

**Respiratory or skin sensitization**

**Respiratory sensitization** Knowledge about health hazard is incomplete.

**Skin sensitization** Knowledge about health hazard is incomplete.

Caprylic Acid	1 % Repeat insult patch test Result: Negative. Species: Human
Lauric Acid	1.95 % Repeat insult patch test Result: Negative. Species: Human
Glycerol	Human skin patch test Result: Not sensitive.
Capric Acid	Local lymph node assay Result: Negative. Species: Mouse
Glycerol	Sensitization, Patch test (0.1 ml of a 0.1% solution) Result: Not sensitive. Species: Guinea pig
Capric Acid	Skin sensitization, 1% solution Result: Negative. Species: Human

**Germ cell mutagenicity** Knowledge about mutagenicity is incomplete.

<b>Mutagenicity</b>	
Capric Acid	Ames test Result: Negative.
Caprylic Acid	Ames test Result: Negative.
Glycerol	Ames test Result: Negative.
Lauric Acid	Ames test Result: Negative.
Myristic Acid	In vitro mutagenicity tests in bacterial and mammalian systems Result: Negative
Caprylic Acid	In vitro unscheduled DNA synthesis Result: Negative.
Capric Acid	Mouse lymphoma assay Result: Negative.

<b>Mutagenicity</b>		
Glycerol		Mutagenicity, In vitro chromosomal aberration test in mammalian cells Result: Negative.
Capric Acid		Mutagenicity, In vitro primary DNA damage test Result: Negative.
Lauric Acid		Mutagenicity: In vitro cytogenicity test in Chinese hamster ovary cells Result: Negative.
Caprylic Acid		Mutagenicity: Saccharomyces cerevisiae Result: Positive: for aneuploidy. Negative: for crossing-over. Mutagenicity: test in Saccharomyces cerevisiae Result: Negative.

<b>Carcinogenicity</b>	Knowledge about carcinogenicity is incomplete.	
Lauric Acid		35 % Carcinogenicity, administered in diet Result: Negative. Species: Rat Test Duration: 2 years
Caprylic Acid		7.4 g/kg Carcinogenicity Result: Negative. Species: Rat Test Duration: 47 weeks
Glycerol		Carcinogenicity, Dietary study Result: No evidence of carcinogenicity. Species: Rat

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

<b>Reproductive toxicity</b>	Knowledge about health hazard is incomplete.	
<b>Reproductivity</b>		
Caprylic Acid		0 - 1500 mg/kg/day Reproductivity / developmental, administered by gavage during gestation Result: Maternal toxicity; decreased number of live pups at high dose; not teratogenic. Species: Rat
Glycerol		1180 mg/kg/day Reproductivity, Developmental study Result: Negative: No evidence of maternal toxicity or increase in birth defects. Species: Rabbit 1280 mg/kg/day Reproductivity Result: Negative: No evidence of maternal toxicity or increase in birth defects. Species: Mouse 2000 mg/kg Reproductivity, (two generation, 20% solution in drinking water) Result: Negative: No effects on reproductive efficiency, growth, fertility, or reproductive performance. Species: Rat
Caprylic Acid		600 mg/kg Reproductivity / developmental Result: Not teratogenic. Species: Mouse

**Specific target organ toxicity - single exposure** Knowledge about health hazard is incomplete.

**Specific target organ toxicity - repeated exposure** Knowledge about health hazard is incomplete.

**Aspiration hazard** Knowledge about health hazard is incomplete.

**12. Ecological information**

**Ecotoxicity** Harmful to aquatic life.

Components	Species		Test Results
Capric Acid (CAS 334-48-5)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	> 65 mg/l
Fish	LC50	Fish	> 100 mg/l
Caproic Acid (CAS 142-62-1)			
<b>Aquatic</b>			
Fish	LC50	Fathead minnow (Pimephales promelas)	88 mg/l, 96 hours
Caprylic Acid (CAS 124-07-2)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	144 mg/l, 72 hours
Crustacea	EC50	Daphnia magna	550 mg/l, 24 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	39.9 mg/l, 96 hours
Glycerol (CAS 56-81-5)			
<b>Aquatic</b>			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	51000 - 57000 mg/l, 96 hours
Lauric Acid (CAS 143-07-7)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	13 - 22 mg/l, 48 hours freshwater, static
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	27 - 45 mg/l, 96 hours freshwater, static

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential**

**Octanol/water partition coefficient log Kow**

Capric Acid	4.09
Caproic Acid	1.88
Glycerol	-1.76
Lauric Acid	4.6, = Log Kow
Myristic Acid	5.9
	6.11

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

**Disposal instructions** Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**14. Transport information**

**DOT**

<b>UN number</b>	UN1760
<b>UN proper shipping name</b>	Corrosive liquids, n.o.s. (Caprylocaproyl Polyoxylglycerides)
<b>Transport hazard class(es)</b>	
<b>Class</b>	8



**Subsidiary risk** -  
**Packing group** III  
**Packaging exceptions** 154  
**Packaging non bulk** 203  
**Packaging bulk** 241

**IATA**

**UN number** UN1760  
**UN proper shipping name** Corrosive liquid, n.o.s. (Caprylocaproyl Polyoxyglycerides)  
**Transport hazard class(es)**

**Class** 8

**Subsidiary risk** -

**Packing group** III

**Other information**

**Passenger and cargo aircraft** Allowed with restrictions.

**Cargo aircraft only** Allowed with restrictions.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

**DOT**



**IATA**



**General information**

It is the shipper's responsibility to determine the correct transport classification at the time of shipment.

**15. Regulatory information**

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes  
**Classified hazard categories** Skin corrosion or irritation  
 Serious eye damage or eye irritation  
**SARA 313 (TRI reporting)**  
 Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Glycerol (CAS 56-81-5)

Other Flavoring Substances with OSHA PEL's

**US state regulations**

**California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 03-04-2019

**Revision date** 03-04-2019

**Version #** 02

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