



SAFETY DATA SHEET

GLYCERIN

SECTIONS 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE

Product Name: GLYCERIN

Company Code: LI-GLY

Other Means of Identification: CA2812 CP/USP Kosher Glycerine – 96%

Recommended Use of Mixture: Lubricants, personal care, food additives, surfactants

Restricted Uses: None known

Supplier Details

LI Pigments
27 Honeck St
Englewood, NJ 07631
<http://LiPigments.com>

Emergency Phone Number

Chemtrec
US & Canada: 1-(800)-535-5053
International: 1-(353)-323-3500

SECTION 2: HAZARD IDENTIFICATION

Classification (29CFR1910.1200 Appendix A)

Not a hazardous substance or mixture

GHS Label Elements

Not a hazardous substance or mixture

Signal Word

None

Hazard Statements

None

Hazard Symbol (pictogram)

None

Other Hazards Not Otherwise Classified (HNOC) or Covered by GHS

None

Note: When information for the mixture is not available data is made available for the individual components. Data given for components is for 100% concentration of that component.

SECTION 3: COMPOSITION

Chemical Name/Ingredient	Common Name	Typical %	EINECS No.	Cas No.	Health Hazard
Glycerin	Glycerin	96	200-289-5	56-81-5	Target Organ (NIOSH)
Water	Water	4	215-185-5	7732-18-5	None

SECTION 4: FIRST-AID MEASURES

Description of Necessary First Aid Measures

After Inhalation – Move person into fresh air. If not breathing give artificial respiration. Consult a physician.

After Skin Contact – Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If there is any irritation, consult a physician.

After Eye Contact – Rinse opened eye thoroughly for several minutes under running water. Remove contact lenses if present and easy to do. If irritation occurs, seek immediate medical (ophthalmologist) attention.

After Ingestion – Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with plenty of water. For ingestion of large quantities, seek immediate medical attention. Consult a physician or poison control center.

Most Important Symptoms/Effects, Acute and Delayed

Symptoms After Inhalation – May experience dizziness and headache. Irritation of the nose and throat.

Symptoms After Skin Contact – Mild irritation of the skin may occur

Symptoms After Eye Contact – Mild irritation of the eye tissue may occur

Symptoms After Ingestion – May cause nausea and vomiting

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary

Treatment After Inhalation – If breathing is labored seek immediate medical attention

Treatment After Skin Contact – If skin irritation occurs seek immediate medical attention

Treatment After Eye Contact – If eye irritation occurs seek immediate ophthalmologist attention

Treatment After Ingestion – If ingestion of a large quantity seek immediate poison control center

When seeking medical attention in relation to the product, bring this SDS to the physician. No further relevant information available.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide and alcohol-resistant foam carbon dioxide.

Inappropriate Extinguishing Media

Water or foam may cause frothing

Direct Fire Hazard

Not flammable

Indirect Fire Hazard

Exposure to temperature above the flash point (199°C)

Explosive Hazard

Exposure to temperature above the flash point (199°C)

Reactivity

Reactivity with strong oxidizers. Also refer to section 7

Combustion Products

Carbon dioxide, carbon monoxide and acrolein

Specific Protective Actions for Fire-Fighters

Full protective clothing. Wear self-contained respiratory protection device.

Precautions

Per NIOSH glycerin mist is hazardous (target organs: eyes, skin, respiratory system, kidneys).

OSHA TWA 15 mg/m³ respirable fraction as total dust (mist).

Inhalation may cause severe injury. Effects of inhalation may be delayed.

Glycerin may decompose upon heating to produce toxic fumes.

Isolate spill or leak area in all directions for at least 50 meters.

If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters in all directions

Emergency Response Guide

ERG 154

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment, and Emergency Procedures**

Ensure adequate ventilation. Avoid breathing vapours. Wear appropriate personal protective equipment. Rubber gloves, rubber boots, face shield and chemical hazard suite. If material is a mist wear self-contained breathing apparatus. If mixture is a mist, alert immediate neighborhood to close windows and doors. See SECTION 2 for list of relevant precautionary phrases. See SECTION 8 for personal protective equipment.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains/sewers/surface or ground water.

Methods and Materials for Containment and Cleaning Up

Contain spillage. Ensure adequate ventilation. Absorb large spills with liquid-binding material (sand, diatomite, universal binder, sawdust) and place in an appropriate container. Place container for disposal according to local regulations. Clean area before returning. see SECTION 13 for disposal considerations

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Eating, drinking and smoking in work area is prohibited. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating area. Avoid contact with skin or eyes. Avoid inhalation of vapour or mist. See SECTION 2 for full list of GHS precautionary statements.

Handling Temperature

About 20-30°C above the melt level (18°C)

Handling Equipment

Rubber hoses, aluminum or stainless steel (grade 304) lines. Stainless steel (grade 304) for pumps)

Precautions for Safe Storage, Including Any Incompatibilities

Store in original container. Keep container tightly closed in well-ventilated place. Containers once opened must be carefully resealed and kept upright to prevent leakage. Do not fill container with anything. Do not pour material back into container after dispensing. No recommended storage temperature for the mixture but avoid excesses in temperature and store at room temperature when feasible. Protect from heat.

Packaging materials

Polyethylene, aluminum, stainless steel (grade 304), rubber lined or epoxy lined tanks or drums. Graphite or rubber gaskets.

Incompatibles

Oxidizers. Glycerin also is incompatible with hydrogen peroxide, potassium permanganate, nitric acid + sulfuric acid, perchloric acid + lead oxide, acetic anhydride, aniline + nitrobenzene, $\text{Ca}(\text{OCl})_2$, CrO_3 , $\text{F}_2 + \text{PbO}$, KMnO_4 , K_2O_2 , AgClO_4 and NaH . A mixture with chlorine explodes if heated to 158-176°F. It reacts with acetic acid, potassium peroxide, sodium peroxide, hydrochloric acid, ($\text{HClO}_4 + \text{PbO}$) and Na_2O_2 . Contact with potassium chlorate may be explosive. It also reacts with ethylene oxide, perchloric acid, nitric acid + hydrofluoric acid and phosphorus triiodide.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Controls

OSHA PEL

TWA 5mg/m³

ACGIH TLV

TWA 15 mg/m³ respirable fraction

NIOSH REL

TWA 10mg/m³ (default value)

Appropriate Engineering Controls

If mist exists, install ventilation equipped with carbon canisters. Ventilation should be 10 air exchanges per hour. Local exhaust ventilation is recommended. Handle in accordance with good manufacturing practices. Wash hands before break and at the end of workday.

Personal Protective Equipment

Eye/Face Protection – Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin Protection – Handle with gloves. Suitable gloves include latex, nitrile, butyl rubber, neoprene, norfoil, and vitron, depending on extent of contact. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with the product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection – Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the workplace.

Respiratory Protection – When risk-assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Pictograms



Control of Environmental Exposure - Prevent further leakage or spillage if safe and feasible to do so. Do not let product enter the drains. Discharge into the environment should be avoided.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colored Liquid

Odour: Odorless

Odour threshold: Substance is odorless

pH: 7

Melting Point/ Freezing Point: 18°C

Initial Boiling Point/ Boiling Range: 171°C

Flash Point: 177°C. Open Cup

Evaporation Rate: No data available

Flammability (solid, gas): Not flammable

Lower Flammability or Explosive Limits: 0.9% by volume

Upper Flammability or Explosive Limits: No data available

Vapour Pressure: 1.68x10⁻⁴ mm Hg at 25°C; 25x10⁻³ mm Hg at 50°

Vapour Density: 3.1 (air = 1)

Relative Density: 1.2517 at 25°C

Water Solubility: Complete in water

Partial Coefficient, n-Octanol/water: Log Kow = -1.76

Auto-ignition Temperature: 393°C

Decomposition Temperature: 290°C

Viscosity: 954 mPas (cps) at 25°C

SECTION 10: STABILITY AND REACTIVITY

Reactivity

May react violently with oxidizers

Chemical Stability

Stable under normal storage conditions

Possibility of Hazardous Reactions

Hazardous polymerization does not occur

Conditions to Avoid

Pressure, shock, static discharge or vibration does NOT result in a hazardous condition

Incompatible Materials

Oxidizers. Also refer to section 7 for a complete list of incompatible materials

Hazardous Decomposition Products

Carbon dioxide, carbon monoxide and acrolein. In the event of fire see SECTION 5.

SECTION 11: TOXICOLOGY INFORMATION

Information on the Likely Routes of Exposure

Inhalation Exposure – From mist

Skin Exposure – From mist or splashing
Ingestion Exposure – Not a likely route of exposure
Eye Contact – From mist or splashing

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Inhalation – Labored breathing, shortness of breath and coughing may occur
Skin Contact – Mild skin irritation may occur
Ingestion – Irritation of the mouth, tongue or throat may occur
Eye Contact – Eye irritation may occur

Delayed and Immediate Effects and also Chronic Effects from Short and Long-Term Exposure

Inhalation – Chronic effect are not known
Skin Contact – Chronic effect are not known
Ingestion – Chronic effect are not known
Eye Contact - Chronic effect are not known

Numerical Measures of Toxicity

Oral LD50	Rat 12600 mg/kg Rat 5570 mg/kg Rabbit 27000 mg/kg Mouse 4100 mg/kg
Skin LD50	Rabbit > 18700 mg/kg 8-hour exposure
Ingestion LD50	Humans 14 subjects ingested 24000 mg/kg per day for 50 days with no observable effects
Inhalation LD50	Rat > 570 mg/m ³ /hour
Skin Primary Irritation	Rabbit 0.5 ml undiluted for 24 hours produced no irritation
Eye Primary Irritation	Rabbit 0.1 ml undiluted for 7 days produced no irritation

Carcinogenicity

National Toxicology Program	Not listed
International Agency For Cancer Research	Not listed
OSHA	Not listed
NIOSH	Not listed

Other Toxicological Information

Reproductive Toxicity	Not classified
Germ Cell Mutagenicity	Not classified
Respiratory or Skin Sensitization	Not classified
Specific Target Organ Toxicity	Respiratory system, kidneys, eyes and skin (NIOSH)
Repeated Exposure	
Aspiration Hazard	No data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity Aquatic

Fish LC50	>5000 mg/l 24-hour goldfish
Daphnia EC50	> 10000 mg/l 24 hour
Rotifer EC50	No data available
Algae EC50	NOEC 2900 mg/l

Ecotoxicity Terrestrial

Ecotoxicity Terrestrial No data available

Persistence and Degradability

Water 82% 5-day BOD (activated sludge)
 Readily degradable
 Soil Koc = 1
 Mobile
 Air 7-hour half life

Bio-Accumulative Potential

Log Kow -1.76
 This substance does not have a potential to bio-concentrate

Mobility in Soil

Surface Tension Air 63 dyne/cm
 Soil Mobility Mobile

Result of PBT and vPvB Assessment

PBT and vPvB assessment No data available

Other Adverse Effects

Air Not dangerous to the ozone layer
 Water Mild pollutant to water

SECTION 13: DISPOSAL CONSIDERATIONS**Description of Waste Residues**

Storage Tank Residues Liquid residue from tank cleaning
 Empty Package Residues Liquid residue remaining in emptied package container
 Transport Trailer Residues Liquid residue from transport trailer cleaning
 Absorbent Material Solid absorbent containing mixture from a spill

Safe Handling of Waste Residues

Storage Tank Residues Refer to section 7 for safe handling
 Empty Package Residues Refer to section 7 for safe handling
 Transport Trailer Residues Refer to section 7 for safe handling
 Absorbent Material Refer to section 7 for safe handling

Methods of Disposal

Storage Tank Residues Dispose via an approved incineration facility
 Dispose via an approved land fill facility
 Dispose only in accordance with local, state and federal regulations
 Empty Package Residues Remove package to an approved package cleaning and recycling facility
 Dispose only in accordance with local, state and federal regulations
 Transport Trailer Residues Clean transport trailer at an approved cleaning facility
 Dispose only in accordance with local, state and federal regulations
 Absorbent Material Dispose via an approved incineration facility

Dispose via an approved land fill facility
 Dispose only in accordance with local, state and
 federal regulations

Hazardous Waste Classification (RCRA)

Classification	Regulation	Listed	Hazardous Waste Number
Ignitability	40CFR261.21	No	
Corrosivity	40CFR261.22	No	
Reactivity	40CFR261.23	No	
Toxicity	40CFR261.24	No	

SECTION 14: TRANSPORT INFORMATION

UN Number

UN Number None

UN Proper Shipping Name

Proper Shipping Name None

Transport Hazard Class

Hazard Class None

Hazard Label None

Hazard Pictogram None

Packing Group

Packing Group None

Environmental Hazards

Marine Pollutant Not listed

Transport in Bulk

US DOT Not regulated

IMDG Not regulated

IATA Not regulated

MARPOL 73/78 Not regulated

IBC Code Not regulated

Special Precautions for User

Special Precautions No additional information available

SECTION 15: REGULATORY INFORMATION

Safety, Health and Environmental Regulations Specific for the Substance or Mixture

US Regulations

SARA 302 (40CFR355) Not listed

SARA 311/312 (40CFR370.66) Immediate (acute) health hazard. Target organ (NIOSH)

Delayed (chronic) health hazard. Target organ (NIOSH)

SARA 313 (40CFR372.65) Not listed

CERCLA (40CFR302.4) Not listed

California Proposition 65
German WGK Class

Not listed
1 (low hazard to waters)

Chemical Inventories

TSCA USA	Listed
AICS Australia	Listed
DSL Canada	Listed
EC Europe	Listed
ECL Korea	Listed
IECSC China	Listed
ENCS Japan	Listed
NzloC New Zealand	Listed
PICCS Philippines	Listed
SWISS Switzerland	Listed

New Jersey Right to Know Component

NJ Substance	Number Component	Other Names	CAS Number
3319	Glycerin	1,2,3-propanetriol; Glycerol	56-81-5

Chemical Safety Assessment

Safety Assessment No additional information available

SECTION 16: OTHER INFORMATION

	<u>Health</u>	<u>Flammability</u>	<u>Physical Hazards</u>	<u>Instability</u>
HMIS (USA)	1	1	0	
NFPA (USA)	1	1		0

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Preparation Information

LI Pigments

QC Department

Creation Date: 07/14/2016

Last Revision: 09/13/2017