

G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME -----> **Glycerine 99.5 & 99.7%**

PRODUCT NUMBER(S)-----> Glycerol

99.5% TECHNICAL #169200,
99.5% ACS #169210,
99.5% LAB grade#169230,
99.5% USP #169240,
99.7% USP Kosher #169270,
99.7% USP #169271,
99.7% USP Kosher CP #169272

TRADE NAMES AND SYNONYMS--> 1,2,3-Propanetriol, Aliphatic Alcohol

CAS-No: 56-81-5

CHEMICAL FAMILY: Triol

1.2 RELAVENT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:

RECOMMENDED USE: Industrial: Use in polymer processing, Use in functional fluids, Production of drugs, Use in coatings, Use in lubricants and plasticizers, Use in cleaning agents, Use as an intermediate, Distribution of substance, Laboratory chemicals.

USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: **G.J. CHEMICAL CO., INC.**

Address: **40 VERONICA AVENUE
SOMERSET, NJ 08873**

Telephone: **1-973-589-1450**

Fax: **1-973-589-3072**

1.4 Emergency Telephone Number

Emergency Phone: **1-800-424-9300 (CHEMTREC)**

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements
Not a hazardous substance or mixture.

Pictogram none

Signal word: none

Hazard statement(s): none

Precautionary statement(s): none

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. INGREDIENTS

3.1 SUBSTANCE:

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Glycerine	56-81-5 EC-No.200-289-5 Reg.-No. 01-2119471987-18-XXXX	99.5-99.7	None
Water	7732-18-5 EC-No.231-791-2	.3-.5	None

3.2 MIXTURE: Not applicable

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

INHALATION: GLYCEROL

****FIRST AID- Remove from exposure area to fresh air immediately. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.**

SKIN CONTACT: GLYCEROL

****FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Consult a physician if irritation persists.**

EYE CONTACT: GLYCEROL

****FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Do not let victim rub eyes. Consult a physician if irritation persists.**

INGESTION: GLYCEROL

****FIRST AID- Do not induce vomiting. Never give anything by mouth to an unconscious person. Have patient drink several glasses of water. Consult a physician or poison control center, treat symptomatically.**

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Eye: May cause mild eye irritation. Do not let victim rub eyes.

Skin: May be harmful if absorbed through skin. Prolonged contact may cause slight irritation with local redness;

Inhalation: May be harmful if inhaled. Vapor formed by heating the material and mists may cause respiratory tract irritation.

Ingestion: May be harmful if swallowed. Large amounts may cause gastrointestinal irritation. Call physician or poison control center promptly.

Chronic: No information currently available.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Hazards: None known

Treatment: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flash Point: 160°C (320°F) TCC

LEL %:0.9%

Auto-ignition temp: 370°C (698°F)

UEL %:N.D.

UNIFORM FIRE CODE: Combustible Liquid Class IIIB

5.1 EXTINGUISHING MEDIA:

Co-ordinate fire-fighting measures to the fire surroundings.

Suitable extinguishing media: Foam--> x CO2--> x Dry Chemical--> x Water-fog-->
x Other-->

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR

MIXTURE: Keep containers tightly closed. Combustible liquid; isolate from all sources of ignition. During a fire potentially toxic/irritating fumes from combustion/decomposition products may be generated. Glycerine (Glycerol) can react violently or explosively on contact with strong oxidizing materials or strong acids.

Sensitivity to Mechanical Impact: No

Sensitivity to Static Discharge: No

CONDITIONS OF FLAMMABILITY: Not flammable or combustible.

HAZARDOUS COMBUSTION PRODUCTS: May produce toxic fumes of carbon monoxide if burning.

5.3 ADVICE FOR FIREFIGHTERS: Shut off source. Water fog may be used to cool closed containers to prevent pressure build up and possible auto-ignition or explosion when exposed to extreme heat. A solid stream of water or foam directed into hot burning liquid can cause frothing and increase fire intensity. A water spray carefully applied can be successful in extinguishing such fires. Wear self-contained breathing apparatus for confined spaces and where there is exposure to vapors. Use full fire-fighting protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment for confined areas use A NIOSH/MHSA approved self-contained positive pressure respirator (SCBA) and fire resistant protective clothing during cleanup operations.

6.2 ENVIRONMENTAL PRECAUTIONS:

Keep out of water sources, drains, and sewers, avoid release to the environment. Cover drains.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Methods for cleanup and containment:

Extinguish all ignition sources. Use explosion proof equipment and equipment that can withstand the corrosive nature of this product. Shut off valves, contain spill, for small spills add non-flammable absorbent in spill area. For large spills use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent.

Methods for disposal:

Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

6.4 REFERENCE TO OTHER SECTIONS: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: Do not take internally. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

Advice on general occupational hygiene:

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke.

CONDITIONS FOR SAFE STORAGE: Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Store large quantities only in buildings designed to comply with OSHA 1910.106. Provide general and/or local exhaust ventilation to control airborne levels below the exposure. Keep containers closed when not in use. Use product promptly after opening. Do not consume food, drink or use tobacco products in areas where they may become contaminated with this material. The area should be protected from contamination by acid fumes. Isolate from acid storage.

CONTAINER WARNINGS> Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

Ingredient	CAS No.	% by WT. Range	Exposure Limits

Glycerine	56-81-5 EC-No.200-289-5 Reg.-No. 01-2119471987-18-XXXX	99.5-99.7	5mg/m3 TWA (OSHA) Respirable Mist 10mg/m3 TWA (ACGIH) Total Mist
Water	7732-18-5 EC-No.231-791-2	.3-.5	N/A

Key: (PEL) = Permissible Exposure Limit OSHA
(TLV) = Threshold Limit Value OSHA & ACGIH
(STEL) = Short Term Exposure Limit ACGIH
(WEEL) = USA. Workplace Environmental Exposure Levels
(TWA) = Time Weighted Average
CAS = Chemical Abstracts Registry Number
IDLH = Immediate Danger to Life and Health
N.E. =None Established

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator.

Vapor concentrations 1 to 10 times ACGIH TWA, use an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times ACGIH TWA and in confined areas use an NIOSH/MSHA approved positive pressure full face-piece supplied air respirator (SCBA).

BODY CLOTHING: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

SKIN PROTECTION: Employee must wear appropriate protective gloves to prevent contact with this substance.

Type of material: Nitrile rubber gloves

Material thickness: >0.11mm

Breakthrough times of the glove material: >480 minutes

HYGIENE: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

EYE/FACE PROTECTION: Use safety eyewear with splash guards.
Emergency shower and eyewash should be easily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Glycerine (Glycerol) 56-81-5

APPEARANCE:	Clear liquid
COLOR:	Colorless
ODOR:	Mild
ODOR THRESHOLD:	No data available
pH:	5.5 - 8
MOLECULAR WEIGHT:	92.09 amu
MELTING POINT:	20°C (68°F)
BOILING POINT:	182°C (360°F)
SPECIFIC GRAVITY:	1.2607@25°C
DENSITY (25°C):	1.2607 g/ml @25°C (77.0°F)
VAPOR PRESSURE:	<0.001 mm Hg @ 25°C (77.0°F)
VAPOR DENSITY:	3.18
WATER SOLUBILITY:	Complete
PARTITION COEFFICIENT N- OCTANOL/WATER	No data available
FLASH POINT:	160°C (320°F) - closed cup
EVAPORATION RATE (BUTYL ACETATE=1):	No data available
UPPER FLAMMABILITY LIMIT:	No data available
LOWER FLAMMABILITY LIMIT:	0.9% (V)
AUTO IGNITION TEMPERATURE:	370°C (698°F)
DECOMPOSITION TEMPERATURE:	No data available
VISCOSITY:	No data available
EXPLOSIVE PROPERTIES:	No data available
OXIDIZING PROPERTIES:	No data available

9.2 OTHER INFORMATION: No data available

10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: In case of warming: Vapors can form explosive mixtures with air.

10.2 CHEMICAL STABILITY: Unstable () Stable (X)
Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: Risk of explosion with:
halogens, Strong oxidizing agents, peroxi compounds, hydrogen peroxide,
Nitriles perchloric acid, with, Lead oxides Nitric acid, with, sulphuric acid
Risk of ignition or formation of inflammable gases or vapors with: potassium

permanganate, hydrides, calcium hypochlorite Fluorine, with, Lead oxides
Exothermic reaction with: Oxides of phosphorus, chromium(VI) oxide,
phosphorus halides Acetic anhydride, with, phosphorous oxichloride
ANILINE, with, Nitrobenzene

HAZARDOUS POLYMERIZATION: May occur () Will not occur (X)

10.4 CONDITIONS TO AVOID: Keep away from heat. No smoking.
Product can oxidize at elevated temperatures. Generation of gas during
decomposition can cause pressure in closed systems.

10.5 INCOMPATIBLE MATERIALS: Strong oxidants such as Nitric Acid, oxygen,
Chromium Trioxide, Potassium Chlorate, Potassium Permanganate, other
inorganic acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Does not decompose up to
400°F. Acrolein, carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x Eye--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> May cause eye irritation. Mild do not let victim rub eyes.

Skin> May be harmful if absorbed through skin. Prolonged contact may cause
slight irritation with local redness;

Inhalation> May be harmful if inhaled. Vapor formed by heating the material and
mists may cause respiratory tract irritation.

Ingestion> May be harmful if swallowed. Large amounts may cause
gastrointestinal irritation. Call physician or poison control center promptly.

Chronic: No information currently available.

Medical Conditions Aggravated by Exposure> None known

ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity
profiles. Typical values are:

Ingredient	Oral LD50 (Rat)	Skin LD50 (Rabbit)	Inhalation LC50
Glycerine	12600mg/kg	>10000mg/kg	

SKIN CORROSION/IRRITATION: No data available

SERIOUS EYE DAMAGE/EYE IRRITATION: Causes slight to moderate irritation

RESPIRATORY OR SKIN SENSITIZATION:

Respiratory: No data available

Skin: No data available

MUTAGENIC EFFECTS: No information available.

CARCINOGEN STATUS:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

REPRODUCTIVE TOXICITY: No data available.

Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System): no data available

ASPIRATION HAZARD: No data available

11.2 ADDITIONAL DATA: Kidney - Irregularities - Based on Human Evidence
RTECS: MA8050000

12. ECOLOGICAL INFORMATION

12.1 ACUTE AQUATIC TOXICITY:

Toxicity to fish:

LC50 Pimephales promelas (Fathead Minnow):	885mg/l – 96 h
LC50 Oncorhynchus mykiss (Rainbow Trout)	50-67mg/L – 96 h
CLC50 Carassius auratus (Goldfish)	>5000mg/L - 96 h

Toxicity to marine invertebrates:

LC50 Daphnia Magna (Water Flea)	1955mg/l - 48 h
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12.2 PERSISTANCE AND DEGRADABILITY:

Glycerine (Glycerol) Process: Biotic/abiotic; Degradation Rate: 63%; Time: 14 d
Substance is readily biodegradable.

12.3 BIOACCUMULATIVE POTENTIAL: Does not significantly accumulate in organisms.

Log Kow: -1.75

Bioconcentration Factor (BCF): No data available

12.4 MOBILITY IN SOIL: No data available.

12.5 RESULTS OF PBT AND vPvB:

PBT assessment results: This substance is not classified as PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS: Slightly hazardous to water.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

CONTAMINATED PACKAGING: Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

Glycerine is a non-hazardous waste as defined by RCRA (40CFR261). Dispose in accordance with all applicable disposal regulations.

14. TRANSPORT INFORMATION

Land Transport (DOT)

14.1 USDOT ID Number-----> N/A

14.2 USDOT Shipping Name-----> Not DOT Regulated
Not Dangerous Goods

14.3 USDOT Hazard Classification-----> N/A
USDOT Label Codes-----> N/A

14.4 USDOT Package Code-----> N/A

14.5 Environmental hazard-----> No

14.6 Special precautions for user-----> None

Sea Transport (IMDG)

14.1 UN Number-----> N/A

14.2 Proper Shipping Name-----> Not Dangerous Goods
14.3 Hazard Class-----> N/A
 USDOT Label Codes-----> N/A
14.4 Packing Group-----> N/A
14.5 Environmental hazard-----> No

Air Transport (IATA)

14.1 UN Number-----> N/A
14.2 Proper Shipping Name-----> Not Dangerous goods
14.3 Hazard Class-----> N/A
 USDOT Label Codes-----> N/A
14.4 Packing Group-----> N/A
14.5 Environmental hazard-----> No

15. REGULATORY INFORMATION

**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION
SPECIFIC FOR THE SUBSTANCE OR MIXTURE:**

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Not Listed

SECTION 311/312: Hazard Categorization (40 CFR 370) - Chronic Health Hazard

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

**SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not Listed
Reportable Quantity - None**

SECTION 101(14) Reportable Quantity: None

**Massachusetts Right to Know Components
Glycerol CAS-No. 56-81-5**

**Right to Know Components
Glycerol CAS-No. 56-81-5**

**New Jersey Right to Know Components
Glycerol CAS-No. 56-81-5**

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substance Control Act)

Glycerine CAS 56-81-5 is listed on the TSCA Inventory.

International Inventories:

<u>Country or Region</u>	<u>Inventory Name</u>	<u>On inventory yes/no</u>
<u>Australia</u>	Australian Inventory of Chemical Substances (AICS)	Yes
<u>Canada</u>	Domestic Substances List (DSL)	Yes
<u>Canada</u>	Non-Domestic Substances List (NDSL)	No
<u>China</u>	Inventory of Existing Chemical Substances in China (IECSC)	Yes
<u>Europe</u>	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
<u>Europe</u>	European List of Notified Chemical Substances (ELINCS)	No
<u>Japan</u>	Inventory of Existing and New Chemical Substances (ENCS)	Yes
<u>Japan</u>	Industrial Safety & Health Law Inventory (ISHL)	Yes
<u>Korea</u>	Existing Chemicals List (ECL)	Yes
<u>Mexico</u>	National Inventory of Chemical Substances (INSQ)	Yes
<u>New Zealand</u>	New Zealand Inventory	Yes
<u>Philippines</u>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
<u>Switzerland</u>	Inventory of Notified New Substances (CHINV)	Yes
<u>Taiwan</u>	National Existing Chemical Inventory (NECI)	Yes
<u>United States & Puerto Rico</u>	Toxic Substances Control Act Inventory	Yes

15.2 CHEMICAL SAFETY ASSESSMENT: A Chemical Safety Assessment has been conducted.

16. OTHER INFORMATION:

Hazard Rating:

4-Extreme

3-High

2-Moderate

1-Slight

0-Insignificant

NFPA RATINGS (SCALE 0-4): Health=0 Fire=1 Reactivity=0
HMIS RATINGS (SCALE 0-4): Health=0 Fire=1 Reactivity=0 PPE=X

Text of hazard statement codes in Section 2 and 3:
Not a hazardous substance or mixture.

Date of preparation-----> July 22, 2003

Revision Number-----> 1.6

Revision content-----> General update all sections

Revision Date-----> February 13, 2019

Prepared by-----> T.G. Fenstermaker, Jr.

Acronyms:

ACGIH	-	American Conference of Governmental Industrial Hygienists
AIHA	-	American Industrial Hygiene Association
ANSI	-	American National Standards Institute
API	-	American Petroleum Institute
CERCLA	-	Comprehensive Emergency Response, Compensation, and Liability Act
DOT	-	U.S. Department of Transportation
EPA	-	U.S. Environmental Protection Agency
HMIS	-	Hazardous Materials Information System
IARC	-	International Agency For Research On Cancer
MSHA	-	Mine Safety and Health Administration
NFPA	-	National Fire Protection Association
NIOSH	-	National Institute of Occupational Safety and Health
NOIC	-	Notice of Intended Change (Proposed change to ACGIH TLV)
NTP	-	National Toxicology Program
OPA	-	Oil Pollution Act of 1990
OSHA	-	U.S. Occupational Safety & Health Administration
PEL	-	Permissible Exposure Limit (OSHA)
RCRA	-	Resource Conservation and Recovery Act
REL	-	Recommended Exposure Limit (NIOSH)
SARA	-	Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA	-	Self-Contained Breathing Apparatus
STEL	-	Short-Term Exposure Limit (generally 15 minutes)
TLV	-	Threshold Limit Value
TSCA	-	Toxic Substances Control Act
TWA	-	Time Weighted Average (8hr.)
WHMIS	-	Canadian Workplace Hazardous Materials Information System

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