SPI Supplies Division

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Section 1.1: Identification

Chemical Name/Synonyms Glycerine; Glycerin; Glycerol

Product or Trade Name SPI Chem™ Glycerine

CAS #'s 56-81-5

Chemical Formula..... C₃H₈O₃

Section 1.2: Relevant Uses/Restrictions

Identified use: Laboratory chemical.

Section 1.3: Supplier of the Safety Data Sheet

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Section 1.4: Emergency telephone number

Emergencies Contacting CHEMTREC:

24 Hour Emergency Use Only #'s... Worldwide phone: 1-(703)-741-5970 Toll-free phone: 1-(800)-424-9300 USA + Canada only

Section 2: Hazard Identification

2.1 Classification of the substance Not classified for physical or health hazards under GHS.

2.2 Label elements

Not a hazardous substance or mixture.

Safety Data Sheet

Date Effective: December 19, 2016

02693-AB SPI Chem™ Glycerine

2.3 Other Hazards:

Hazards not otherwise classified (HNOC) or not covered by GHS: None

Hazardous Material Information System USA

Health0	
Fire Hazard1	
Reactivity0	
Personal Protection	

NFPA Rating (estimated)

Health	0
Flammability	1
Reactivity	

Section 3: Composition

3.1 Substances:

Glycerine CAS# 56-81-5 99.7% EC# 200-289-5 C₃H₈O₃ Molecular Weight: 92.1

Section 4: First Aid Measures

4.1 Description of first aid measures:

General Advice:

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact:

Wash off with soap and plenty of water.

Consult a physician.

In case of eye contact:

Rinse thoroughly with plenty of water for at least 15 minutes.

Consult a physician.

If swallowed:

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No data available.

Section 5: Fire Fighting Measures

5.1 Extinguishing media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products: Carbon oxides.

5.3 Advice for firefighters:

Wear self-contained breathing apparatus for fire-fighting if necessary.

5.4 Further information: No data available.

Section 6: Accidental Release Measures

6.1 Personal precautions: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. For personal protection, see Section 8.

6.2 Environmental precautions: Do not let product enter drains.

6.3 Methods and material for containment and cleaning up: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections: For disposal, see Section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Protective measures: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. For precautions, see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Hygroscopic.

7.3 Specific end uses:

Laboratory chemical. This item is not being offered for clinical or diagnostic applications, agricultural uses or for human or animal consumption.

Section 8: Exposure Controls and Personal Protection

8.1 Control parameter and Personal Protection

Workplace exposure limits CAS# 56-81-5 ACGIH TLV: mist as TWA: 10 mg/m³ OSHA PEL: TWA 15 mg/m³ OSHA TWA (resp): 5 mg/m³

Biological limit values: No additional information available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

8.2.2 Individual protection measures:

Respiratory protection:

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls, When necessary use NIOSH approved breathing equipment.

Eve/face protection: Safety glasses with side-shields conforming to appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: Handle with gloves. Select glove material which is impermeable and resistant to the substance, based on rates of diffusion and degradation. Use proper glove removal technique without touching outer surface. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Avoid skin contact with used gloves. Wear protective clothing.

8.2.3 Environmental exposure controls; Do not let product enter drains.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties Appearance: Clear liquid Odor: Odorless Odor threshold: No data available pH: 5.5 - 8 Melting point range: 20 °C (68 °F) Boiling point/Boiling point range: 182 °C (360 °F) at 27 hPa (20 mm Hg) Flash Point: 160 °C (320 °F) Evaporation rate: No data available Flammability (solid, gas): No data available Upper/lower flammability or explosive limits: Upper: 11.3 Lower: 2.6 Vapor Pressure: 0.0033 hPa (0.0025 mm Hg) at 50 °C (122 °F) Vapor density: 3.18 (Air = 1.0) Relative density: 1.25 grams/ml Solubility: Soluble in water Partition coefficient (n-octanol/water) as log Pow: -1.76 auto-ignition temperature: 393 °C Decomposition temperature: No data available Viscosity: No data available Explosive properties: No data available Oxidizing Properties: No data available Surface tension: 63.4 MN/m at 20 °C (68 °F) 9.2 Other information: No further information available

Section 10: Stability and Reactivity

10.1 Reactivity: No data available.

- 10.2 Chemical Stability: Stable under recommended storage conditions.
- 10.3 Possibility of Hazardous Reactions: No data available.
- 10.4 Conditions to avoid: No data available.
- 10.5 Incompatible materials: Strong bases, Strong oxidizing agents.
- 10.6 Hazardous decomposition products: Other decomposition products no data available.

In the event of fire, see Section 5.

Section 11: Toxicological Information

Information on the likely routes of exposure

11.1 Information on toxicological effects a. acute toxicity

> LD50 Oral, rat 12,600 mg/kg Inhalation – no data LD50 Dermal, rabbit 10,000 mg/kg

- b. skin corrosion/irritation Skin – rabbit Result: Mild skin irritation – 24 hours
- c. serious eye damage/irritation Eyes – rabbit Result: Mild eye irritation – 24 hours
- d. respiratory of skin sensitization No data available
- e. germ cell mutagenicity No data available

f. carcinogenicity

- 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.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is Identified as a carcinogen or potential carcinogen by ACGIH>
- 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 0or potential carcinogen by OSHA.

- g. reproductive toxicity No data available.
- h. STOT-single exposure No data available.
- i...STOT-repeated exposure No data available.
- j. aspiration hazard No data available.
- k. additional information RTECS: MA8050000

Prolonged or repeated exposure may cause: Nausea, Headache, Vomiting

Section 12: Ecological Information

- 12.1 Toxicity: No data available.
- 12.2 Persistence and degradability: Readily biodegradable.
- 12.3 Bioaccumulative potential: Not Bioaccumulative.
- 12.4 Mobility in soil: Aqueous solution has high mobility in soil.
- 12.5 Results of PBT and vPvB assessment: No data available.
- 12.6 Other adverse effects: None identified.

Section 13: Disposal Considerations

- 13.1 Waste treatment methods
 - Contact a licensed professional waste disposal service to dispose of this material.
 - Dispose of empty containers as unused product.
 - Product or containers must not be disposed with household garage.
 - It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11).
 - Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

Chemicals waste generators must also consult local, regional and national hazardous waste regulations. Ensure complete and accurate classification.

Section 14: Transport Information

DOT (US): Not dangerous goods.

IATA: Not dangerous goods.

IMDG: Not dangerous goods.

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

OSHA specifically regulated substances

SARA Section 311/312 (Specific toxic chemical listings): Chronic

SARA Section 313 (Specific toxic chemical listings): None of the ingredients is listed.

RCRA (hazardous waste code): None of the ingredients is listed.

TSCA (Toxic Substances Control Act): All of the ingredients are listed.

CERCLA (Comprehensive Environmental response, Compensation, and Liability Act): None of the Ingredients is listed.

Proposition 65 (California):

Chemicals known to cause cancer: None of the ingredients is listed. Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed. Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed. Chemicals known to cause developmental toxicity: None of the ingredients is listed.

State Right to Know Lists:

CAS # 56-81-5 is listed on the Massachusetts, Pennsylvania and New Jersey Right-to-Know Lists.

Canada

Canadian Domestic Substance List (DSL): All ingredients are listed. Canadian NPRI Ingredient Disclosure list (limit 0.1%): None of the ingredients is listed. Canadian NPRI Ingredient Disclosure list (limit 1%): None of the ingredients is listed.

15.2 Chemical Safety Assessment:

No additional information available.

Date of Preparation: 19 December 2016.

Abbreviations and acronyms IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation CMRG: Chemical Manufacturer's Recommended Guidelines IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bio-accumulative and Toxicological vPvB: very Persistent and very Bio-accumulative NIOSH: National Institute for Occupational Safety **OSHA: Occupational Safety Health** TLV: Threshold Limit Value PEL: Permissible Exposure Limit **REL: Recommended Exposure Limit** STEL: Short Term Exposure Limit **CEIL:** Ceiling

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

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