SAFETY DATA SHEETS

This SDS packet was issued with item: 078353438

N/A



GLYCERIN AQUEOUS SOLUTIONS

Material Safety Data Sheet

Section 1: Chemical Product and Company Identification Catalog Number:	
3289, 3290, 3291, 3291.8, G-127, G041150, R3286000, R3290010, R32 SG041150	291500, R3291700, R3291850,
Product Identity: GLYCERIN AQUEOUS SOLUTIONS	
Manufacturer's Name: RICCA CHEMICAL COMPANY LLC	Emergency Contact(24 hr) CHEMTREC® Domestic: 800-424-9300 International: 703-527-3887
CAGE Code: 4TCW6, 0V553, 4XZQ2	
Address: 448 West Fork Dr Arlington, TX 76012	Telephone Number For Information: 817-461-5601
Date Prepared: 9/29/00	Revision: 7 Last Revised: 03/28/2011 Date Printed: 03/02/2012 8:00:23 am

Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Glycerin (Glycerol)	56-81-5	> 40	Not Available	Not Available
			10 mg/m3	15 mg/m3
Water, Deionized	7732-18-5	Balance	Not Available	Not Available
			Not Available	Not Available

Section 3: Hazard Identification

Emergency Overview: May cause irritation to areas of contact. Wash areas of contact with water. Mildly toxic by ingestion. Can cause headaches, nausea, vomiting, and diarrhea. May also cause kidney damage. If swallowed, dilute with water or milk and induce vomiting. Call a physician if necessary. **Target Organs:** eyes, skin, kidneys.

Eye Contact: May cause slight irritation.

Inhalation: May cause irritation.

Skin Contact: May cause slight irritation.

Ingestion: Mildly toxic by ingestion. Symptoms include headaches, nausea, vomiting and diarrhea. May also cause kidney damage.

Chronic Effects/Carcinogenicity: None

- IARC No.
- NTP No.

OSHA - No.

Reproductive Information: Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Glycerin (Glycerol). Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Glycerin (Glycerol).



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GLYCERIN AQUEOUS SOLUTIONS

Teratology (Birth Defect) Information: Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Glycerin (Glycerol). Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Glycerin (Glycerol).

Section 4: First Aid Measures - In all cases, seek qualified evaluation.

Eye Contact: Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Skin Contact: Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Ingestion: Dilute immediately with water or milk. Induce vomiting. Call a physician.

Section 5: Fire Fighting Measures

Flash Point: Not Available. LFL: Not Available. Extinguishing Media: Use any means suitable for extinguishing surrounding fire. Fire & Explosion Hazards: Containers may explode in fire due to buildup of pressure Fire Fighting Instructions: Use normal procedures/instructions. Fire Fighting Equipment: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal. Do not flush to sewer. Dispose of in accordance with local regulations.

Section 7. Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Safety Storage Code: General

Section 8: Exposure Control/Personal Protection

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate. Respiratory Protection: Normal room ventilation is adequate. Skin Protection: Chemical resistant gloves. Eye Protection: Safety glasses or goggles.

Section 9: Physical and Chemical Properties

Appearance: Clear, colorless liquid Odor: characteristic alcohol Solubility in Water: Infinite Specific Gravity: Approximately 1.1 - 1.2 pH: Not Available. Boiling Point(°C): Not Available. Melting Point(°C): Not Available. Vapor Pressure: Not Applicable.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizing agents such as Chromium Trioxide, Potassium Chlorate, Potassium Permanganate, and Hydrogen Peroxide, Acetic Anhydride, some metallic oxides.

Hazardous Decomposition Products: Acrid and irritating fumes when heated to decomposition. Hazardous Polymerization: Will not occur.

Method Used: Not Available. UFL: Not Available.



For RICCA, SpectroPure, Red Bird, and Solutions Plus Brands Emergency Contact(24 hr) -- CHEMTREC® Domestic: 800-424-9300 International: 703-527-3887

GLYCERIN AQUEOUS SOLUTIONS

MSDS

Section 11. Toxicological Information

LD50, Oral, Rat: (Glycerin) 12600 mg/kg, behavioral effects noted. LD50, Dermal, Rabbit: (Glycerin) > 10 gm/kg, details of toxic effects not reported other than lethal dose value. Investigated as a mutagen (Glycerin).

Section 12. Ecological Information

Ecotoxicological Information: This material is not expected to be toxic to aquatic life. Insufficient data are available to evaluate the short and long term effects to plants, birds and land animals.

Chemical Fate Information: Glycerin is moderately persistent in water, with a half-life of between 20 to 200 days.

Section 13. Disposal Considerations

Absorb with suitable inert material (vermiculite, dry sand, earth) and place in a chemical waste container for proper disposal. Do not flush to sewer. Always dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Part Numbers:

This product is not regulated.

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

OSHA Status: These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material. TSCA Status: All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory. Sara Title III:

Section 302 Extremely Hazardous Substances:Not Applicable.

Section 311/312 Hazardous Catagories:No

Section 313 Toxic Chemicals:Not Applicable

California: None Reported.

Pennsylvania: Glycerin (Glycerol) is listed as a Basic Hazard on the state's Hazardous Substances List. Glycerin (Glycerol) is listed as a Basic Hazard on the state's Hazardous Substances List.

RCRA Status: Not Applicable.

CERCLA Reportable Quantity: None Reported.

WHMIS: Not Applicable.

Section 16. Other Information

NFPA Ratings:

Health: 1	Flammability: 0	Reactivity: 0	Special Notice Key:None			
HMIS Ratings:						
Health: 1	Flammability: 0	Reactivity: 0	Protective Equipment:B (Protective Eyewear, Gloves)			
Rev 1, 10-09-2001: Refor	rmatted to electronic data format.					
Rev 2, 02-06-2003: (Section 1) added Solutions Plus catalog number G 041150.						
Rev 3, 10-28-2003: (Section 1) added catalog number 3291.8; (Section 2) revised concentration from 40 - 60; (Section 9) revised specific gravity from						
approximately 1.1.						
Rev 4, 10-05-2006: (Sect	ion 1) added Red Bird catalog number	G-127.				
Rev 5, 02-20-2007: (Sect	ion 1) added catalog number R328600	0.				
Rev 6, 04-13-2007: (Section 1) added catalog numbers R3290010, R3291700, and R3291850.						

Rev 7, 03-28-2011: (Section 1) added catalog number R3291500.



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GLYCERIN AQUEOUS SOLUTIONS

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.



SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Glycerol, 85% (v/v), from USP materials, nonsterile

Product Number: R3291850 Other Identifying Product Numbers: R3291850-1A, R3291850-4A

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company

Address: 448 West Fork Drive Arlington, TX 76012 USA Telephone: 888-467-4222

1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300 CHEMTREC (International) 1+ 703-527-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

		Hazard	
Hazard Class	Category	Statement	Precautionary Statements
Skin Corrosion / Irritation	Category 2	H315	P264, P280, P302+P352, P321, P332+P313, P362
Eye Damage / Irritation	Category 2A	H319	P264, P280, P305+P351+P338, P337+P313

2.2. GHS Label Elements

Pictograms:



Signal Word: Warning

RICCA CHEMICAL COMPANY®

Safety Data Sheet

Hazard Statements:

Hazard Number	Hazard Statement
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary Statements:

Precautionary Number	Precautionary Statement
P264	Wash arms, hands and face thoroughly after handling.
P280	Wear protective gloves and eye protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to d
	Continue rinsing.
P321	Specific treatment (Wash areas of contact with water).
P332+P313	If skin irritation occurs: Get medical attention.
P337+P313	If eye irritation persists: Get medical attention.
P362	Take off contaminated clothing and wash it before reuse.

2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Glycerin	$C_3H_8O_3$	92.09 g/mol	56-81-5	87.75%
Water	H ₂ O	18.01 g/mol	7732-18-5	12.25%

SECTION 4: First-Aid Measures

4.1. General First Aid Information

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause slight irritation.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: IF ON SKIN: Wash with plenty of soap and water. May cause slight irritation.



Ingestion: Dilute immediately with water or milk. Induce vomiting. Call a physician.

4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause irritation to areas of contact. Wash areas of contact with water. Mildly toxic by ingestion. Can cause headaches, nausea, vomiting, and diarrhea. May also cause kidney damage. If swallowed, dilute with water or milk and induce vomiting. Call a physician if necessary. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation.

4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water).

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

5.2. Specific Hazards Arising from the Substance or Mixture

Containers may explode in fire due to buildup of pressure

5.3. Special Protective Equipment for Firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal. Do not flush to sewer. Dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

SECTION 8: Exposure Controls / Personal Protection

8.1. Control Parameters

Chemical Name	Limit Typ	e Country	Exposure Limit	Information Source
Glycerin (56-81-5)	TWA	USA	15 mg/m ³ TWA (mist, total particulate)	U.S OSHA - Final PELs - Time Weighted
			5 mg/m ³ TWA (mist, respirable fractior	n) Averages (TWAs)

8.2. Exposure Controls

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.



Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves.

Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.

8.3. Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance:	Colorless liquid
Physical State:	Liquid
Odor:	Data not available.
Odor Threshold:	Data not available.
pH:	Data not available.
Melting/Freezing Point:	Data not available.
Initial Boiling Point /Range:	Data not available.
Flash Point:	Data not available.
Evaporation Rate:	Data not available.
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Vapor Pressure:	Data not available.
Vapor Density:	Data not available.
Relative Density:	1.23
Solubility:	Miscible
Partition Coefficient (n-Octanol/Water):	Data not available.
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
Viscosity:	Data not available.
ExplosiveProperties:	Data not available.
Oxidizing Properties:	Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.



10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Strong oxidizing agents such as Chromium Trioxide, Potassium Chlorate, Potassium Permanganate, and Hydrogen Peroxide, Acetic Anhydride, some metallic oxides.

10.4. Hazardous Decomposition Products

Will not occur.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure: Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Oral, Rat: (Glycerin) 12600 mg/kg, behavioral effects noted. LD50, Dermal, Rabbit: (Glycerin) > 10 gm/kg, details of toxic effects not reported other than lethal dose value. Investigated as a mutagen (Glycerin).

Skin Corrosion and Irritation:

Causes skin irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Serious Eye Damage and Irritation:

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity: Not applicable.

Carcinogenicity: Not applicable.



Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure: Not applicable.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Not applicable.

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.



SECTION 14: Transportation Information

14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.

Not regulated according to IATA Regulations.

SECTION 15: Regulatory Information

- 15.1. Occupational Safety and Health Administration (OSHA) Hazards Not listed.
- 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances Not listed.
- 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals Not listed.
- 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI) Not listed.
- 15.5. Massachusetts Right-to-Know Substance List

Glycerin (CAS # 56-81-5): Present (mist)



15.6. Pennsylvania Right-to-Know Hazardous Substances

Glycerin (CAS # 56-81-5): Present Water (CAS # 7732-18-5): Present

- **15.7. New Jersey Worker and Community Right-to-Know Components** Glycerin (CAS # 56-81-5): sn 3319
- 15.8. California Proposition 65

Not listed.

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Glycerin (CAS # 56-81-5): Present (DSL) Water (CAS # 7732-18-5): Present (DSL)

15.10. United States of America Toxic Substances Control Act (TSCA) List

Glycerin (CAS # 56-81-5): Present Water (CAS # 7732-18-5): Present

- 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS),
 - European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.

SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

Causes skin irritation. Causes serious eye irritation.

Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection.

IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing and wash it before reuse.

16.2. Miscellaneous Hazard Classes

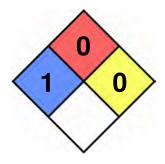
Canadian Carcinogenicity Hazard Class: Not Applicable. Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable. Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.

Not Applicable.



16.3. National Fire Protection Association (NFPA) Rating

Health: 1 Flammability: 0 Reactivity: 0 Special Hazard:





16.4. Document Revision

Last Revision Date: 5/1/2015

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.