

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1 Product Identifier

Potassium chloride solution, 4M with Glycerol

Other Identifying Product Numbers: 35803-84

1.2 Recommended Use and Restrictions on Use

Electrode Filling Solution.

1.3 Details of the Supplier of the Safety Data Sheet

Company: Cole-Parmer Instrument Company

Address: 625 East Bunker Court

Vernon Hills, IL 60061 USA

Telephone: 800-323-4340

1.4 Emergency Telephone Number

Van London Company: 832-456-6641

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

Classification according to GHS-US

Not classified as a hazardous chemical

2.2 GHS Label Elements

None Required

2.3 Hazards not Otherwise Classified or Covered by GHS

None identified

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

Chemical Name	CAS Number	Weight %
Water	7732-18-5	50
Glycerol	56-81-5	20
Potassium chloride	7447-40-7	30

SECTION 4: First-Aid Measures

4.1 General First Aid Information

Eye Contact: Flush eyes with plenty of water as a precaution.

Inhalation: Move person into fresh air. If not breathing, give artificial respiration.

Skin Contact: Wash off with soap and plenty of water.

Safety Data Sheet

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Data not available

4.3 Medical Attention or Special Treatment Needed

Not expected to require special treatment.

SECTION 5: Fire-Fighting Measures

5.1 Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific Hazards Arising from the Substance or Mixture

Carbon oxides

5.3 Special Protective Equipment for Firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Keep unprotected persons away.

6.2 Cleanup and Containment Methods and Materials

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

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling and Storage Conditions

Handling: Avoid contact with eyes. Avoid inhalation of vapour or mist. Wash hands thoroughly after handling.

Storage: Keep container tightly closed and upright in a dry and well-ventilated place. Protect against physical damage.

SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Glycerol	TWA	USA	10.000 mg/m ³	ACGIH - Threshold Limit Values - Ceilings (TLC-C)
Remarks			Upper Respiratory Tract irritation	
	TWA	USA	15.000 mg/m ³	Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	TWA	USA	5.000 mg/m ³	Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

Safety Data Sheet

See Appendix D - Substances with No Established RELs				
TWA	USA	5.000 mg/m ³	Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants	
TWA	USA	15.000 mg/m ³	Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants	

8.2 Exposure Controls

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

8.3 Personal Protective Equipment

Eye Protection: Safety glasses or goggles.

Respiratory Protection: No protective equipment is needed under normal use conditions

Skin Protection: Chemical resistant gloves

SECTION 9: Physical and Chemical Properties

9.1 Basic Physical and Chemical Properties

Appearance: Clear, colorless liquid

Physical State: Liquid

Odor: None

Odor Threshold: Data not available

pH: 5.5 - 8.0

Melting/Freezing Point: -4°C

Initial Boiling Point/Range: 104°C

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: Data not available

Solubility: Miscible

Partition Coefficient: Data not available

Auto-Ignition Temperature: Data not available

Decomposition Temperature: Data not available

Viscosity: Data not available

Explosive Properties: Data not available

Oxidizing Properties: Data not available

SECTION 10: Stability and Reactivity

10.1 Reactivity and Chemical Stability

Safety Data Sheet

Stable under normal conditions of use and storage

10.2 Possibility of Hazardous Reactions

No data available.

10.3 Conditions to Avoid and Incompatible Materials

Strong bases, Strong oxidizing agents

10.4 Hazardous Decomposition Products

No data available.

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Glycerol: LD50 Oral - Rat - 12,600 mg/kg

Acute Toxicity - Dermal Exposure:

Glycerol: LD50 Dermal - Rabbit - > 10,000 mg/kg

Acute Toxicity - Inhalation Exposure:

No data available.

Acute Toxicity - Other Information:

No data available.

Skin Corrosion and Irritation:

Glycerol: Skin - Rabbit. Result: Mild skin irritation - 24 h

Serious Eye Damage and Irritation:

Glycerol: Eyes - Rabbit. Result: Mild eye irritation - 24 h

Respiratory Sensitization:

No data available.

Skin Sensitization:

No data available.

Germ Cell Mutagenicity:

No data available.

Carcinogenicity:

No data available.

Reproductive Toxicity:

No data available.

Specific Target Organ Toxicity from Single Exposure:

None Known

Specific Target Organ Toxicity from Repeated Exposure:

None Known

Aspiration Hazard:

No data available.

Additional Toxicology Information:

The toxicological properties have not been fully investigated.

Safety Data Sheet

SECTION 12: Ecological Information

12.1 Ecotoxicity

Data not available.

12.2 Persistence and Degradability

Soluble in water. Persistence is unlikely based on information 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

Offer surplus and non-recyclable solutions to a licensed disposal company.

SECTION 14: Transportation Information

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

Not regulated according to DOT 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

Glycerol: Chronic Health Hazard

15.4 Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Not listed.

15.5 Massachusetts Right-to-Know Substance List

Glycerol is listed

15.6 Pennsylvania Right-to-Know Hazardous Substances

Glycerol is listed

15.7 New Jersey Worker and Community Right-to-Know Components

Glycerol is listed

15.8 California Proposition 65

Not listed.

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

Potassium chloride [7447-40-7]. This substance is on the DSL.

Glycerol [56-81-5]. This substance is on the DSL.

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

Safety Data Sheet

Water [7732-18-5]: Present

Glycerol (CAS # 56-81-5): Present²

Potassium chloride [7447-40-7]. This substance is listed.

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

Not listed.

Safety Data Sheet

SECTION 16: Other Information

16.1 Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

Physical Hazards Nor Otherwise Classified (PHNOC): Not Applicable.

Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.2 Hazardous Materials Identification System (HMIS) Rating

Chemical Name	
Health	1
Flammability	0
Physical Hazard	0

- 0 - Minimal Hazard
- 1 - Slight Hazard
- 2 - Moderate Hazard
- 3 - Serious Hazard
- 4 - Severe Hazard

16.3 Document Revision

Last Revision Date: 05/07/2019

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 COLE-PARMER INSTRUMENT COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.