Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: HydroSpec® Solvent K

Medium for One and Two Component Volumetric Titrations of Aldehydes and Ketones

Product Number: RK340000
Other Identifying Product Numbers: RK340000-1C

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 hours)

 CHEMTREC (USA)
 800-424-9300

 CHEMTREC (International)
 1+ 703-527-3887

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RICCA CHEMICAL COMPANY®

Safety Data Sheet

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

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

		Hazard	
Hazard Class	Category	Statements	Precautionary Statements:
Acute Toxicity - Inhalation	Category 4	H332	P261, P271, P304+P340, P312
Skin Corrosion / Irritation	Category 1	H314	P260, P264, P280, P301+P330+P331,
			P303+P361+P353, P363, P304+P340, P310,
			P321, P305+P351+P338, P405, P501
Eye Damage / Irritation	Category 1	H318	P280, P305+P351+P338, P310
Germ Cell Mutagenicity	Category 2	H341	P201, P202, P280, P308+P313, P405, P501
Carcinogenicity	Category 2	H351	P201, P202, P280, P308+P313, P405, P501
Reproductive Toxicity	Category 2	H361	P201, P202, P280, P308+P313, P405, P501
Specific Target Organs/Systemic Toxicity Following Repeated	Category 1	H372	P260, P264, P270, P314, P501
Exposure			
Flammable Liquids	Category 3	H226	P210, P233, P240, P241, P242, P243, P280,
			P303+P361+P353, P370+P378, P403+P235,
			P501

2.2. GHS Label Elements

Pictograms:









Signal Word: Danger

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Hazard Statements:

Hazard Number	Hazard Statement
H226	Flammable liquid and vapor.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.

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Precautionary Statements:

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, sparks and open flame. No smoking.
P233	Keep container tightly closed.
P240	Ground container and receiving equipment.
P241	Use explosion-proof equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe fumes, mist, vapors, or spray.
P261	Avoid breathing fumes, mist, vapors, or spray.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and
	easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical attention.
P310	Immediately call a POISON CENTER or physician.
P312	Call a POISON CENTER or physician if you feel unwell.
P314	Get medical attention if you feel unwell.
P321	Specific treatment (Wash areas of contact with water.).
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

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RICCA CHEMICAL COMPANY®

Safety Data Sheet

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Propylene Glycol Monomethyl Ether	CH ₃ CHOHCH ₂ OCH ₃	90.12 g/mol	107-98-2	83.00
Chloroform	CHCl₃	119.37 g/mol	67-66-3	11.00
Sulfur Dioxide	SO ₂	64.06 g/mol	7446-09-5	6.00

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 irritation with burning and stinging with possible damage to the cornea and conjunctiva.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May irritate skin. May cause

allergic skin reaction. May be harmful if absorbed through skin.

Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Dilute immediately with water or milk. Do not induce vomiting.

Call a physician if necessary.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Causes severe skin burns and eye damage. Causes serious eye damage. Harmful if inhaled. Suspected of causing genetic defects. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: May cause irritation, allergic rash. Absorption is possible.

4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water.). Irrigate immediately with large quantity of water for at least 15 minutes. Remove to fresh air. If breathing is difficult, give oxygen. Wash areas of contact with soap and water for at least 15 minutes. Dilute immediately with water or milk. Do not induce vomiting. Call a physician if necessary.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Specific Hazards Arising from the Substance or Mixture

Flammable liquid and vapor. Flammable in the presence of a source of ignition when the temperature is above the flash point. May form peroxides of unknown stability.

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5.3. Special Protective Equipment for Firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Remove all sources of ignition. Contain spill. Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal in an approved waste disposal facility. Ventilate area of spill. Have extinguishing agent available in case of fire. Use non-sparking tools and equipment. Dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Moisture sensitive, keep container tightly closed.

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SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Count	ry Exposure Limit	Information Source
Propylene Glycol Monomethyl Et	her (1·TLV-STEL	USA	100 ppm STEL	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Propylene Glycol Monomethyl Et	her (1:TLV-TWA	USA	50 ppm TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Chloroform (67-66-3)	PEL-Ceiling	USA	50 ppm Ceiling; 240 mg/m³ Ceiling	U.S OSHA - Final PELs - Ceiling Limits
Chloroform (67-66-3)	TLV-TWA	USA	10 ppm TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Chloroform (67-66-3)	TWA	USA	"0.5 mg/m³ TWA (as Sb)" As Antimony compounds [RR-00585-6]	U.S OSHA - Final PELs - Time Weighted Averages (TWAs)
Chloroform (67-66-3)	TLV-TWA	USA	"0.5 mg/m³ TWA (as Sb)" As Antimony compounds [RR-00585-6]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Sulfur Dioxide (7446-09-5)	TLV-STEL	USA	0.25 ppm STEL	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Sulfur Dioxide (7446-09-5)	TWA	USA	5 ppm TWA; 13 mg/m³ TWA	U.S OSHA - Final PELs - Time Weighted Averages (TWAs)

8.2. Exposure Controls

Engineering Controls: Use only outdoors or in a well-ventilated area. A system of local and/or general exhaust is recommended to

keep employee exposures below the Airborne Exposure Limit.

Respiratory Protection: Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic

vapor cartridge may be worn.

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. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn. Chemical resistant gloves. Safety glasses or goggles.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Colorless to light yellow

Physical State: Liquid

Odor: Data not available.

Odor Threshold: Data not available.

pH: 5.0-6.0 at 20°C

Melting/Freezing Point: Data not available

Initial Boiling Point/Range: 120°C at 1013hPa (760mmHg) - 120°C at 1013hPa (760mmHg)

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: 1.12

Solubility: Data not available

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

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

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Strong oxidizing agents, alkali metals, acid chlorides, acid anhydrides, reducing agents, acids, heat, sparks, open flames, extremes of temperature and direct sunlight.

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10.4. Hazardous Decomposition Products

Will not occur. May form carbon oxides and sulfur oxides in the case of fire.

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:

Harmful if inhaled. Avoid breathing fumes, mist, vapors, or spray. Use only outdoors or in a well-ventilated area. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

Acute Toxicity - Other Information:

LD50, Oral, Rat: (1-methoxy-2-propanol) 6600 mg/kg, behavioral effects cited. LD50, Oral, Rat: (Chloroform) 695 mg/kg, behavioral and respiratory effects noted; LD50, Dermal, Rabbit: >20,000 mg/kg, details of toxic effects not reported other than lethal dose value. Investigated as a tumorigen (Chloroform).

Skin Corrosion and Irritation:

Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water.). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Serious Eye Damage and Irritation:

Causes serious eye damage. 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. Immediately call a POISON CENTER or physician.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Suspected of causing genetic defects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Carcinogenicity:

Suspected of causing cancer. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

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Reproductive Toxicity:

Suspected of damaging fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure:

Causes damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

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.

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SECTION 14: Transportation Information

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

Sizes: 1 L, 6 L, 220 mL, 500 mL, 3000 mL

UN Number: UN3092

Proper Shipping Name: 1-Methoxy-2-propanol solution

Hazard Class: 3

Packing Group: |||

Hazard Label(s):



14.2. Transportation by Air - International Air Transport Association (IATA)

Sizes: 1 L, 6 L, 220 mL, 500 mL, 3000 mL

UN Number: UN3092

Proper Shipping Name: 1-Methoxy-2-propanol solution

Hazard Class: 3

Packing Group: |||

Hazard Label(s):



14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 1 L, 6 L, 220 mL, 500 mL, 3000 mL

UN Number: UN3092

Proper Shipping Name: 1-METHOXY-2-PROPANOL SOLUTION

Hazard Class: 3

Packing Group: |||

Hazard Label(s):



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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

Chloroform (CAS # 67-66-3): 10 lb EPCRA RQ Chloroform (CAS # 67-66-3): 10000 lb TPQ

Sulfur Dioxide (CAS # 7446-09-5): 500 lb EPCRA RQ Sulfur Dioxide (CAS # 7446-09-5): 500 lb TPQ

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Chloroform (CAS # 67-66-3): 10 lb final RQ; 4.54 kg final RQ

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

Chloroform (CAS # 67-66-3): "1.0 % de minimis concentration (includes any unique chemical substance that contains Antimony as part of that chemical's infrastructure, listed under Chemical Category N010)" As Antimony compounds [RR-00585-6] Chloroform (CAS # 67-66-3): 0.1 % de minimis concentration

15.5. Massachusetts Right-to-Know Substance List

Propylene Glycol Monomethyl Ether (CAS # 107-98-2): Present Chloroform (CAS # 67-66-3): Carcinogen; Extraordinarily hazardous Sulfur Dioxide (CAS # 7446-09-5): Extraordinarily hazardous

15.6. Pennsylvania Right-to-Know Hazardous Substances

Propylene Glycol Monomethyl Ether (CAS # 107-98-2): Present

Chloroform (CAS # 67-66-3): "Environmental hazard" As Antimony compounds [RR-00585-6]

Chloroform (CAS # 67-66-3): "Environmental hazard" As Halomethanes [RR-00327-0]

Chloroform (CAS # 67-66-3): "Present" As Antimony compounds [RR-00585-6]

Chloroform (CAS # 67-66-3): "Present" As Halomethanes [RR-00327-0]

Chloroform (CAS # 67-66-3): Environmental hazard

Chloroform (CAS # 67-66-3): Environmental hazard; Special hazardous substance

Chloroform (CAS # 67-66-3): Present

Sulfur Dioxide (CAS # 7446-09-5): Environmental hazard

Sulfur Dioxide (CAS # 7446-09-5): Present

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

Propylene Glycol Monomethyl Ether (CAS # 107-98-2): flammable - third degree

Propylene Glycol Monomethyl Ether (CAS # 107-98-2): sn 1613

Chloroform (CAS # 67-66-3): "SN 2223 500 lb TPQ (Category Code N010. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Antimony compounds [RR-00585-6]

Chloroform (CAS # 67-66-3): "sn 2223" As Antimony compounds [RR-00585-6]

Chloroform (CAS # 67-66-3): carcinogen

Chloroform (CAS # 67-66-3): sn 0388

Chloroform (CAS # 67-66-3): SN 0388 500 lb TPQ

Sulfur Dioxide (CAS # 7446-09-5): sn 1759

Sulfur Dioxide (CAS # 7446-09-5): SN 1759 500 lb TPQ

15.8. California Proposition 65

Chloroform (CAS # 67-66-3): 20 μ g/day NSRL (oral); 40 μ g/day NSRL (inhalation)

Chloroform (CAS # 67-66-3): carcinogen, 10/1/1987

Chloroform (CAS # 67-66-3): developmental toxicity, 8/7/2009

Sulfur Dioxide (CAS # 7446-09-5): developmental toxicity, 7/29/2011

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

Propylene Glycol Monomethyl Ether (CAS # 107-98-2): Present (DSL)

Chloroform (CAS # 67-66-3): Present (DSL)

Sulfur Dioxide (CAS # 7446-09-5): Present (DSL)

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

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.

Propylene Glycol Monomethyl Ether (CAS # 107-98-2): Present (ACTIVE)

Chloroform (CAS # 67-66-3): Present (ACTIVE)

Sulfur Dioxide (CAS # 7446-09-5): Present (ACTIVE)

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

Propylene Glycol Monomethyl Ether (CAS # 107-98-2): 203-539-1

Chloroform (CAS # 67-66-3): 200-663-8

Sulfur Dioxide (CAS # 7446-09-5): 231-195-2

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SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

Flammable liquid and vapor. Causes severe skin burns and eye damage. Harmful if inhaled. Suspected of causing genetic defects. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye protection.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water.). Wash contaminated clothing before reuse. In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.

Store in a well-ventilated place. Keep cool. Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

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.

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health: 3
Flammability: 3
Reactivity: 0
Special Hazard:



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16.4. Document Revision

Last Revision Date: 2024-03-05

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.

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