Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: A-2 Etchant

Product Number: R0002000
Other Identifying Product Numbers: R0002000-4A

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 hours)

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

Product Number: R0002000 Page 1 of 14



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 - Oral	Category 4	H302	P264, P270, P301+P312, P330, P501
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
Reproductive Toxicity	Category 1	H360	P201, P202, P280, P308+P313, P405, P501
Specific Target Organs/Systemic Toxicity Following Single	Category 2	H371	P260, P264, P270, P308+P311, P405, P501
Exposure			
Specific Target Organs/Systemic Toxicity Following Repeated	Category 1	H372	P260, P264, P270, P314, P501
Exposure			
Flammable Liquids	Category 2	H225	P210, P233, P240, P241, P242, P243, P280,
			P303+P361+P353, P370+P378, P403+P235,
			P501

2.2. GHS Label Elements

Pictograms:









Signal Word: Danger

Hazard Statements:

Hazard Number	Hazard Statement
H225	Highly flammable liquid and vapor.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H360	May damage fertility or the unborn child.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.

Product Number: R0002000 Page 2 of 14



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.		
P264	Wash arms, hands and face thoroughly after handling.		
P270	Do not eat, drink or smoke when using this product.		
P280	Wear protective gloves and eye protection.		
P301+P312	IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.		
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+P311	IF exposed or concerned: Call a POISON CENTER or physician.		
P308+P313	IF exposed or concerned: Get medical attention.		
P310	Immediately call a POISON CENTER or physician.		
P314	Get medical attention if you feel unwell.		
P321	Specific treatment (Wash areas of contact with water).		
P330	Rinse mouth.		
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.

Product Number: R0002000 Page 3 of 14



SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Ethyl Alcohol	CH ₃ CH ₂ OH	46.06 g/mol	64-17-5	61.98
Water	H ₂ O	18.01 g/mol	7732-18-5	14.52
Perchloric Acid	HClO₄	100.45 g/mol	7601-90-3	10.23
Ethylene Glycol Monobutyl Ether	HOCH ₂ CH ₂ OC ₄ H ₉	118.17 g/mol	111-76-2	10.16
Methyl Alcohol	CH ₃ OH	32.04 g/mol	67-56-1	3.10

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. Results in drying and cracking

which can lead to secondary infections and dermatitis. May cause burns, redness and pain.

Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Do not induce vomiting. Give large quantity of water. Call a

physician immediately.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. May damage fertility or the unborn child. May cause damage to organs. Causes damage to organs through prolonged or repeated exposure. Flammable liquid. Corrosive. Primarily toxic by ingestion. If ingested, give large quantity of water. Do not induce vomiting. Call a physician. Contact may cause dryness and cracking of the skin. May cause severe burns to all areas of contact. May cause irritation to the eyes. Wash areas of contact with water. May cause irritation of the respiratory system. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: Results in drying and cracking which can lead to secondary infections and dermatitis. May cause burns, redness and pain.

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. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Do not induce vomiting. Give large quantity of water. Call a physician immediately.

Product Number: R0002000 Page 4 of 14

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Carbon dioxide, dry chemical, alcohol foam Water spray

5.2. Specific Hazards Arising from the Substance or Mixture

Highly flammable liquid and vapor. May decompose explosively when heated. Not combustible, but if involved in a fire decomposes to produce irritants and toxic gases. Closed containers may rupture violently when heated.

5.3. Special Protective Equipment for Firefighters

Wear special protective clothing and positive pressure self-contained breathing apparatus. Natural rubber, Neoprene, nitrile rubber, or polyvinyl chloride barrier recommended.

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

Stop or control the leak, if this can be done without undue risk. Absorb in noncombustible material for proper disposal. Prompt cleanup and removal are necessary.

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. Store in secure, flammable storage area away from all sources of ignition. Empty containers may be hazardous since they retain product residues.

Product Number: R0002000 Page 5 of 14



SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Ethylene Glycol Monobutyl Ether (111-	TWA	USA	50 ppm TWA; 240 mg/m ³	U.S OSHA - Final PELs - Time
			TWA	Weighted Averages (TWAs)
Ethylene Glycol Monobutyl Ether (111-	· TLV-TWA	USA	20 ppm TWA	ACGIH - Threshold Limit Values - Time
				Weighted Averages (TLV-TWA)
Ethyl Alcohol (64-17-5)	TWA	USA	1000 ppm TWA; 1900	U.S OSHA - Final PELs - Time
			mg/m³ TWA	Weighted Averages (TWAs)
Ethyl Alcohol (64-17-5)	TLV-STEL	USA	1000 ppm STEL	ACGIH - Threshold Limit Values -
				Short Term Exposure Limits
				(TLV-STEL)
Methyl Alcohol (67-56-1)	TWA	USA	200 ppm TWA; 260 mg/m ³	U.S OSHA - Final PELs - Time
			TWA	Weighted Averages (TWAs)
Methyl Alcohol (67-56-1)	TLV-STEL	USA	250 ppm STEL	ACGIH - Threshold Limit Values -
				Short Term Exposure Limits
				(TLV-STEL)
Methyl Alcohol (67-56-1)	TLV-TWA	USA	200 ppm TWA	ACGIH - Threshold Limit Values - Time
				Weighted Averages (TLV-TWA)

8.2. Exposure Controls

Engineering Controls: 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.

Product Number: R0002000 Page 6 of 14

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: Acidic

Melting/Freezing Point: Data not available.

Initial Boiling Point/Range: Approximately 80°C - Approximately 80°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: 1.01

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

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. Oxidizers, platinum, Sodium, Potassium Dioxide, Bromine Pentafluoride, Acetyl Bromide, Acetyl Chloride, heat, sparks, open flame.

Product Number: R0002000 Page 7 of 14

10.4. Hazardous Decomposition Products

Will not occur.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Harmful if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. Dispose of contents in accordance with local, state, federal and international regulations.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Oral, Rat: (Methanol) 5628 mg/kg, (Hydrochloric Acid) 900 mg/kg, (Ethylene Glycol Monobutyl Ether) 470 mg/kg, details of toxic effects not reported other than lethal dose value, (Ethanol) 7060 mg/kg, respiration changes noted. Ethylene Glycol Monobutyl Ether) is investigated as a tumorigen, mutagen, reproductive effector. LD50, Oral, Rat (Perchloric Acid) 1100 mg/kg, behavioral, nutritional and respiratory effects noted.

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:

Not applicable.

Carcinogenicity:

Not applicable.

Product Number: R0002000 Page 8 of 14

Reproductive Toxicity:

May damage 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:

May cause damage to organs. 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. IF exposed or concerned: Call a POISON CENTER or physician. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

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.

Product Number: R0002000 Page 9 of 14



SECTION 14: Transportation Information

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

Sizes: 4L

UN Number: UN2924

Proper Shipping Name: Flammable Liquid, corrosive, n.o.s. (Ethanol, Perchloric Acid)

Hazard Class: 3 (8)

Packing Group: ||

Hazard Label(s):





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

Sizes: 4L

UN Number: UN2924

Proper Shipping Name: Flammable Liquid, corrosive, n.o.s. (Ethanol, Perchloric Acid)

Hazard Class: 3 (8)

Packing Group: Ⅱ

Hazard Label(s):





14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 4L

UN Number: UN2924

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol, perchloric acid)

Hazard Class: 3 (8)

Packing Group: Ⅱ

Hazard Label(s):





Product Number: R0002000 Page 10 of 14

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 Methyl Alcohol (CAS # 67-56-1): 5000 lb final RQ; 2270 kg final RQ

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

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): "1.0 % de minimis concentration (applies to R-(OCH2CH2)n-OR', where n = 1, 2, or 3, R=Alkyl C7 or less, or R = Phenyl or Alkyl substituted phenyl, R' = H or Alkyl C7 or less, or OR' consisting of Carboxylic acid ester, Sulfate, Phosphate, Nitrate, or Sulfonate, listed under Chemical Category N230)" As Glycol ethers [RR-00067-9]

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): 1.0 % de minimis concentration (applies to R-(OCH2CH2)n-OR', where n = 1, 2, or 3, R=Alkyl C7 or less, or R = Phenyl or Alkyl substituted phenyl, R' = H or Alkyl C7 or less, or OR' consisting of Carboxylic acid ester, Sulfate, Phosphate, Nitrate, or Sulfonate, listed under Chemical Category N230)

Methyl Alcohol (CAS # 67-56-1): 1.0 % de minimis concentration

15.5. Massachusetts Right-to-Know Substance List

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): Present

Ethyl Alcohol (CAS # 64-17-5): Teratogen

Methyl Alcohol (CAS # 67-56-1): Present

Perchloric Acid (CAS # 7601-90-3): Present

15.6. Pennsylvania Right-to-Know Hazardous Substances

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): "Present" As Glycol ethers [RR-00067-9]

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): Environmental hazard

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): Present

Ethyl Alcohol (CAS # 64-17-5): "Present" As Denatured alcohols [RR-00113-8]

Ethyl Alcohol (CAS # 64-17-5): Present

Methyl Alcohol (CAS # 67-56-1): "Present" As Denatured alcohols [RR-00113-8]

Methyl Alcohol (CAS # 67-56-1): Environmental hazard

Methyl Alcohol (CAS # 67-56-1): Present

Perchloric Acid (CAS # 7601-90-3): Present

Water (CAS # 7732-18-5): "Present" As Ethyl alcohol and water [RR-00802-6]

Water (CAS # 7732-18-5): Present

Product Number: R0002000 Page 11 of 14



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

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): "SN 3138 500 lb TPQ (Category Code N230, except surfactants, includes those glycol ethers that meet the following definition: R-[OCH2CH2]n-OR' where n = 1, 2, or 3, R = alkyl C7 or less, or R = phenyl or alkyl substituted phenyl, R' = H or alkyl C7 or less, OR' consists of carboxylic acid ester, sulfate phosphate, nitrate, or sulfonate)" As Glycol ethers [RR-00067-9]

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): carcinogen

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): sn 0275

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): sn 3138

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): SN 3138 500 lb TPQ (Category Code N230, except surfactants, includes those glycol ethers that meet the following definition: R-[OCH2CH2]n-OR' where n = 1, 2, or 3, R = alkyl C7 or less, or R = phenyl or alkyl substituted phenyl, R' = H or alkyl C7 or less, OR' consists of carboxylic acid ester, sulfate phosphate, nitrate, or sulfonate)

Ethyl Alcohol (CAS # 64-17-5): carcinogen; flammable - third degree; mutagen; teratogen

Ethyl Alcohol (CAS # 64-17-5): sn 0844

Methyl Alcohol (CAS # 67-56-1): flammable - third degree; teratogen

Methyl Alcohol (CAS # 67-56-1): sn 1222

Methyl Alcohol (CAS # 67-56-1): SN 1222 500 lb TPQ

Perchloric Acid (CAS # 7601-90-3): reactive - third degree

Perchloric Acid (CAS # 7601-90-3): sn 2637

15.8. California Proposition 65

Ethyl Alcohol (CAS # 64-17-5): "carcinogen, 7/1/1988 (when associated with alcohol abuse); carcinogen, 4/29/2011" As Alcoholic beverages [RR-01961-4]

Ethyl Alcohol (CAS # 64-17-5): "developmental toxicity, 10/1/1987 (listed under Ethyl alcohol in alcoholic beverages)" As Alcoholic beverages [RR-01961-4]

Ethyl Alcohol (CAS # 64-17-5): carcinogen, 7/1/1988 (when associated with alcohol abuse); carcinogen, 4/29/2011

Ethyl Alcohol (CAS # 64-17-5): developmental toxicity, 10/1/1987 (listed under Ethyl alcohol in alcoholic beverages)

Methyl Alcohol (CAS # 67-56-1): developmental toxicity, 3/16/2012

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

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): Present (DSL)

Ethyl Alcohol (CAS # 64-17-5): Present (DSL)

Ethyl Alcohol (CAS # 64-17-5): Present (NDSL)

Methyl Alcohol (CAS # 67-56-1): Present (DSL)

Methyl Alcohol (CAS # 67-56-1): Present (NDSL)

Perchloric Acid (CAS # 7601-90-3): Present (DSL)

Water (CAS # 7732-18-5): 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.

Product Number: R0002000 Page 12 of 14

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): Present (ACTIVE)

Ethyl Alcohol (CAS # 64-17-5): Present (ACTIVE)

Methyl Alcohol (CAS # 67-56-1): Present (ACTIVE)

Perchloric Acid (CAS # 7601-90-3): Present (ACTIVE)

Water (CAS # 7732-18-5): Present (ACTIVE)

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

Ethylene Glycol Monobutyl Ether (CAS # 111-76-2): 203-905-0

Ethyl Alcohol (CAS # 64-17-5): 200-578-6

Ethyl Alcohol (CAS # 64-17-5): 270-649-4

Methyl Alcohol (CAS # 67-56-1): 200-659-6

Methyl Alcohol (CAS # 67-56-1): 270-649-4

Perchloric Acid (CAS # 7601-90-3): 231-512-4

Water (CAS # 7732-18-5): 231-791-2

SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

Highly flammable liquid and vapor. Harmful if swallowed. Causes severe skin burns and eye damage. May damage fertility or the unborn child. May cause damage to organs. 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. Wear protective gloves and eye protection.

IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. 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: Call a POISON CENTER or physician. 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.

Product Number: R0002000 Page 13 of 14



16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

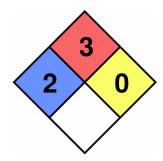
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

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

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health: 2
Flammability: 3
Reactivity: 0
Special Hazard:



16.4. Document Revision

Last Revision Date: 2023-10-11

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.

Product Number: R0002000 Page 14 of 14