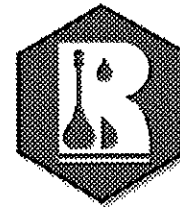


RICCA CHEMICAL COMPANY

Material Safety Data Sheet



Section 1: Chemical Product and Company Identification

Catalog Numbers: 1220	
Product Identity: BROMOCRESOL GREEN - METHYL RED INDICATOR, ALCOHOLIC	
Manufacturer's Name: RICCA CHEMICAL COMPANY	Emergency Contact(24 hr) CHEMTREC: 800-424-9300
CAGE Code: 0V553	
Address: PO BOX 13090 ARLINGTON, TX 76094	Telephone Number For Information: 817-461-5601
Date Prepared: 12/2/1999	Revision: 2 Last revised: 9/17/2001 Print Date: 10/8/2003

Section 2. Composition/Information on Ingredients

Component	CAS Registry#	Percent Concentration	ACGIH TLV	OSHA PEL
Isopropyl Alcohol (Isopropanol, 2-Propanol)	67-63-0	49-51	400 ppm 983 mg/m ³	400 ppm 980 mg/m ³
Water, Deionized	7732-18-5	Balance	Not Available	Not Available
Methyl Red, Sodium Salt	845-10-3	0.019-0.021	Not Available	Not Available
Bromocresol Green, Sodium Salt	62625-32-5	0.09-0.11	Not Available	Not Available

Section 3 : Hazard Identification

Emergency Overview: Flammable, non-toxic, non-corrosive. Ingestion may cause stomach upset, nausea, diarrhea and cramps. If ingested, dilute with water or milk, induce vomiting, then call a physician. Contact may cause dry cracking skin. Wash areas of contact with water.

Target Organs: eyes, skin, respiratory system, central nervous system.

Eye Contact: May cause irritation, redness, pain, and tearing.

Inhalation: May cause irritation to the respiratory tract. Exposure to high concentrations has a narcotic effect. May cause headaches and drowsiness.

Skin Contact: Results in drying and cracking which can lead to secondary infections and dermatitis.

Ingestion: May cause nausea, vomiting, diarrhea and cramps. The single lethal dose for a human adult is about 250 mLs. (8 oz). (Isopropanol)

Chronic Effects/Carcinogenicity: None

IARC - Isopropyl Alcohol (Isopropanol, 2-Propanol) is unclassifiable as to carcinogenicity to humans.

NTP - No.

OSHA - No.

Teratology (Birth Defect) Information: Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Isopropyl Alcohol (Isopropanol, 2-Propanol). Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Methyl Red, Sodium Salt.

Reproductive Information: Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Isopropyl Alcohol (Isopropanol, 2-Propanol).

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: Flush with plenty of 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: approximately 24°C

Method Used: Closed cup

LFL: 2.0% (Pure Isopropanol)

UFL: 12.7% (Pure Isopropanol)

Extinguishing Media: Use water spray, dry chemical, alcohol foam, or carbon dioxide for extinguishing the surrounding fire. Water spray can be used to dilute spills to non-flammable mixtures.

Fire & Explosion Hazards: Vapors can flow along surfaces to distant ignition source and flashback. Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills or vapors away from fire.

Fire Fighting Instructions: Poisonous gases are produced in fire. Continue to cool containers with water after fire is extinguished. For larger fires, use unmanned hose apparatus, if possible. Consider down wind conditions. Do not release runoff from fire-fighting measures to sewers or waterways.

Fire Fighting Equipment: 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

Do not flush to sewer. Absorb with suitable inert material (vermiculite, dry sand, earth) 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. Eliminate all sources of ignition. Use non-sparking tools and equipment. 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. Keep away from heat, sparks and open flame. Use non-sparking equipment.

SAFETY STORAGE CODE: Flammable

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. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

Section 9. Physical and Chemical Properties

Appearance: Clear, dark colored liquid

Odor: rubbing alcohol

Solubility in Water: Infinite

Specific Gravity: Approximately 0.9

pH: Not Available:

Boiling Point(°C): Approximately 93

Melting Point(°C): Approximately -30

Vapor Pressure: 33 at 20°C (Pure IPA)

Section 10. Stability and Reactivity

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

Incompatibility: Heat, sparks, open flame, strong oxidizers, aldehydes. Ignites on contact with many metallic oxides.

Hazardous Decomposition Products: Acrid and irritating fumes, including toxic oxides of carbon, when heated to decomposition.

Hazardous Polymerization: Will not occur.

Section 11. Toxicological Information

No information found on Methyl Red Sodium Salt or Bromocresol Green Sodium Salt in RTECS. LD50, Oral, Rat: 5045 mg/kg (Isopropanol) Isopropanol is investigated as a tumorigen, mutation, reproductive effector.

Section 12. Ecological Information

Ecotoxicological Information: Acute toxic effects may include the death of animals, birds or fish, and death or low growth rate in plants. Acute effects are seen 2 to 4 days after exposure to Isopropanol. Chronic toxic effects may include shortened life span, reproductive problems, lower fertility, and changes in appearance or behavior in exposed animals. These effects can be seen long after first exposure(s) to toxic chemicals. Insufficient data are available to evaluate or predict the short and long term effects of Isopropanol to aquatic life, plants, birds or land animals.

Chemical Fate Information: This material is not expected to significantly bioaccumulate. When released into the soil or into water, this material is expected to quickly evaporate. When released into the air or into water, this material is expected to have a half-life between 1 and 10 days.

Section 13. Disposal Considerations

Do not flush to sewer. Absorb with suitable inert material (vermiculite, dry sand, earth) and place in a chemical waste container for proper disposal in an approved waste disposal facility for incineration in a chemical incinerator equipped with scrubber and afterburner. Ventilate area of spill. Have extinguishing agent available in case of fire. Eliminate all sources of ignition. Use non-sparking tools and equipment. Always dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

D.O.T. Shipping Name: Flammable Liquid, n.o.s., (Contains: Isopropanol)

D.O.T. Hazard Class: 3

U.N. / N.A. Number: UN1993

Packing Group: III

D.O.T. Label : Flammable(3)



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.

CERCLA Reportable Quantity: Not Reportable.

Sara Title III:

Section 302 Extremely Hazardous Substances: No.

Section 311/312 Hazardous Categories: Acute, Chronic, Fire: Yes; Pressure, Reactivity: No

Section 313 Toxic Chemicals: No.

RCRA Status: No.

California: None reported.

Florida: Isopropyl Alcohol (Isopropanol, 2-Propanol) is listed on Florida's Toxic Substances List.

Pennsylvania: Isopropyl Alcohol (Isopropanol, 2-Propanol) is listed as an Environmental Hazard on the state's Hazardous Substances List.

WHMIS Information (Canada):

B-3: Flammable and Combustible Material. Combustible Liquid.



Section 16. Other Information

NFPA Ratings:	Health: 1	Flammability: 2	Reactivity: 0	Special Notice Key: None
HMIS Ratings:	Health: 1	Flammability: 2	Reactivity: 0	Protective Equipment: B (Protective Eyewear, Gloves)

Rev 1, 12-9-99: (Section 1) Revised emergency telephone number to CHEMTREC® 800-424-9300.

Rev 2, 10-09-2001: Reformatted to electronic data format.

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.