Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

**Catalog Number:**
4890

**Product Identity:**
METHYLENE BLUE MILK SMEAR STAIN

**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:**
11/1/00

**Revision:** 2
Last Revised: 09/27/2001
Date Printed: 08/15/2013 2:17:56 pm

Section 2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Registry #</th>
<th>Concentration</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol (Ethanol)</td>
<td>64-17-5</td>
<td>46 - 49</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1880 mg/m3</td>
<td>1900 mg/m3</td>
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<tr>
<td>Acetic Acid</td>
<td>64-19-7</td>
<td>3 - 5</td>
<td>10 ppm</td>
<td>10 ppm</td>
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<td></td>
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<td>25 mg/m3</td>
<td>25 mg/m3</td>
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<td>Methanol (Methyl Alcohol)</td>
<td>67-56-1</td>
<td>2 - 3</td>
<td>200 ppm</td>
<td>200 ppm</td>
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<td></td>
<td></td>
<td></td>
<td>262 mg/m3</td>
<td>260 mg/m3</td>
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<tr>
<td>Methylene Blue</td>
<td>7220-79-3</td>
<td>&lt; 1</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

| Water, Deionized           | 7732-18-5      | 2 - 3         | Not Available | Not Available |

| 1,1,2,2-Tetrachloroethane  | 79-34-5        | 43 - 45       | 1 ppm         | 5 ppm         |
|                            |                |               | 6.9 mg/m3     | 35 mg/m3      |

Section 3: Hazard Identification
Emergency Overview: DANGER! Flammable and Toxic. Keep away from heat, sparks, and open flames. May be fatal if swallowed. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor. Use with adequate ventilation. If swallowed, dilute with water and induce vomiting. Call a physician. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention. Contains a known animal carcinogen, which has not been shown to cause cancer in humans (1,1,2,2-Tetrachloroethane). Potential symptoms of overexposure are nausea, vomiting and abdominal pain, finger tremors, jaundice, enlarged tender liver, dermatitis, kidney damage. Contains 1,1,2,2-Tetrachloroethane, which is considered one of the most toxic of the common chlorinated hydrocarbons, particularly with respect to toxic effects on the liver.

Target Organs: eyes, skin, central nervous system, respiratory system, liver, pancreas, kidneys, gastrointestinal system.

Eye Contact: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

Inhalation: May cause irritation of the eyes, nose and mucosa of the respiratory tract. Exposure to high concentrations can cause depression of the central nervous system with symptoms of sleepiness and lack of concentration. May cause nausea, vomiting and abdominal pain, finger tremors, jaundice, enlarged tender liver, dermatitis, kidney damage.

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

Ingestion: Symptoms can include sleep disorders, hallucinations, distorted perceptions, ataxia, motor function changes, convulsions and tremors, coma, headaches, pulmonary changes, alteration of gastric secretions, vomiting, nausea, drowsiness, unconsciousness and coma. May cause irritation and narcosis with burning of the mouth and lips.

Chronic Effects/Carcinogenicity: None

IARC - 1,1,2,2-Tetrachloroethane is unclassifiable as to carcinogenicity to humans. 1,1,2,2-Tetrachloroethane is unclassifiable as to carcinogenicity to humans.

NTP - No.

OSHA - No.


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: Estimated at 30°C

LFL: Not Available.

Method Used: CC

UFL: Not Available.

Extinguishing Media: Use dry chemical, alcohol foam, or carbon dioxide for extinguishing the surrounding fire. Use water as fog in flooding quantities. Water 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

Remove all sources of ignition. Contain spill. Do not flush to sewer. 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

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. Store at controlled room temperature: 15 - 30°C.

Safety Storage Code: Flammable
Section 8: Exposure Control/Personal Protection

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.
Respiratory Protection: If the exposure limit is exceeded, a full facepiece respirator equipped with organic vapor cartridge should be worn.
Skin Protection: Chemical resistant gloves.
Eye Protection: Safety glasses or goggles.

Section 9: Physical and Chemical Properties

Appearance: Clear, dark blue liquid
Odor: Sweet, pungent, chloroform-like odor
Solubility in Water: All ingredients dissolve except Tetrachloroethane
Specific Gravity: Approximately 1.14
pH: Not Available.
Boiling Point(°C): Approximately 120
Melting Point(°C): Approximately -50
Vapor Pressure: Not Applicable.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.
Incompatibility: Chemically active metals, strong Oxidizers, strong Caustics, Nitric Acid, heat, sparks, open flame.
Hazardous Decomposition Products: Acid and irritating fumes, including toxic oxides of Carbon and Chlorine, when heated to decomposition.
Hazardous Polymerization: Will not occur.

Section 11. Toxicological Information

LD50, Oral, Rat: (Methanol) 5628 mg/kg, (Methylene Blue) 1180 mg/kg, (Acetic Acid): 3310 mg/kg, (1,1,2,2-Tetrachloroethane) 200 mg/kg, LCLo, Inhalation, Rat: (1,1,2,2-Tetrachloroethane) 1000 ppm/4H, details of toxic effects not reported other than lethal dose value; (Ethanol) 7060 mg/kg, respiratory effects noted. 1,1,2,2-Tetrachloroethane is investigated as a tumorigen.

Section 12. Ecological Information

Ecotoxicological Information: Ethanol has moderate chronic toxicity to aquatic life.
Chemical Fate Information: This material is not expected to significantly bioaccumulate. Ethanol is slightly persistent in water, with a half-life of between 2 to 20 days. 1,1,2,2-Tetrachloroethane is non-persistent in water, with a half-life of less than 2 days. Virtually 100% of the 1,1,2,2-Tetrachloroethane will eventually end up in the air.

Section 13. Disposal Considerations

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. Do not flush to sewer. 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

Part Numbers: 4890-16, 4890-32
D.O.T. Shipping Name: Flammable Liquid, Toxic, n.o.s., (Ethanol and 1,1,2,2-Tetrachloroethane)
D.O.T. Hazard Class: 3 (6.1)
U.N. / N.A. Number: UN1992
Packing Group: II
D.O.T. Label: 3, 6.1

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

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 Categories: Acute, Chronic, Fire: Yes; Pressure, Reactivity: No
Section 313 Toxic Chemicals: Not Applicable.

California: Contains an ingredient (1,1,2,2-Tetrachloroethane) known to the state of California to cause cancer. Contains an ingredient (1,1,2,2-Tetrachloroethane) known to the state of California to cause cancer.

Pennsylvania: Acetic Acid is listed as an Environmental Hazard on the state’s Hazardous Substances List. 1,1,2,2-Tetrachloroethane is listed as an Environmental Hazard on the state’s Hazardous Substances List. Ethyl Alcohol (Ethanol) is listed as a Basic Hazard on the state’s Hazardous Substances List. Methanol (Methyl Alcohol) is listed as an Environmental Hazard on the state’s Hazardous Substances List. Methanol (Methyl Alcohol) is listed as an Environmental Hazard on the state’s Hazardous Substances List. Ethyl Alcohol (Ethanol) is listed as a Basic Hazard on the state’s Hazardous Substances List.

RCRA Status: U209, L154, U154, U209

CERCLA Reportable Quantity: 1,1,2,2-Tetrachloroethane - 100 pounds. Methanol (Methyl Alcohol) - 5,000 pounds. Methanol (Methyl Alcohol) - 5,000 pounds. 1,1,2,2-Tetrachloroethane - 100 pounds.


Section 16. Other Information

NFPA Ratings:
  Health: 2  Flammability: 3  Reactivity: 0  Special Notice Key: None

HMIS Ratings:
  Health: 2  Flammability: 3  Reactivity: 0  Protective Equipment: G (Protective eyeware, gloves, dust m

Rev 1, 9-27-2001: (Section 2) revised raw material name for consistency.
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.