

MATERIAL DATA SAFETY SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product: Methylene Blue Stain
Cat. No: MB 119

Molecular Research Center, Inc.
5645 Montgomery Rd.
Cincinnati, Ohio 45212
USA 1-888-841-0900

Product Name: Methylene Blue Stain
Chemical Formula: $C_{16}H_{18}ClNS$
Molecular Weight: 319.0

NFPA RATINGS: (scale 0-4) Health=2 Fire=1 Reactivity=0 PPE=C
HMIS RATINGS: (scale 0-4) Health=2 Fire=1 Reactivity=0

CHEMTREC EMERGENCY NUMBER: Only in the event of an emergency involving a spill, leak, fire exposure or accident. USA: 1-800-424-9300; International: 1-703-527-3887

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	Percent
Methylene Blue	61-73-4	< 10 %

Synonyms: Aizen Methylene Blue BH or FZ, Basic Blue 9, Methylthionine, Methylthionine Chloride, Tetramethylene Blue.

3. HEALTH HAZARD IDENTIFICATION

ROUTES OF EXPOSURE:

Skin	Yes
Ingestion	Yes
Inhalation	Yes

ACUTE EFFECTS

SKIN CONTACT: May cause skin and eye irritation. Absorption into the body may lead to formation of methemoglobin, which in sufficient concentration causes cyanosis. Possible delayed onset=2 to 4 hrs. Exposure can cause stomach pains, vomiting, diarrhea, nausea, dizziness and headache.

CHRONIC EFFECTS: Laboratory experiments have shown mutagenic effects. Target organ: blood.

4. FIRST AID

EYE CONTACT: Flush with copious amounts of water for 15 minutes while holding eyelids open.

SKIN CONTACT: Remove contaminated clothing. Wash with soap and copious amounts of water for 15 minutes.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

INGESTION: Wash out mouth with water if victim is conscious. Do not induce vomiting unless directed to do so by medical personnel. Call a physician.

5. FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA: Water spray, carbon dioxide, dry chemical powder or appropriate foam.

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Emits toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Wear self-contained breathing apparatus, rubber boots, and heavy gloves. Clean up area and hold spill in bag for waste disposal. Avoiding raising dust. Ventilate area and wash spill site. To dispose of waste, dissolve/mix with a combustible solvent and burn in a chemical incinerator with afterburner and scrubber. Observe all federal, state and local environmental regulations.

7. HANDLING AND STORAGE

Store tightly closed in a cool and dry place. Avoid inhalation. Use chemical safety goggles, latex gloves, lab coat, NIOSH/MSHA-approved respirator. Wash hands thoroughly after handling.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT: Wear eye protection, lab coat and gloves for routine operations. Avoid inhalation, contact with eyes and skin. Ensure access to safety shower and eye bath.

9. PHYSICAL AND CHEMICAL PROPERTIES

Description:	Blue liquid
Melting point:	190 C
Solubility:	1g/25 ml water 1 g/65 ml alcohol Insoluble in ether

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal temperature and pressure.

INCOMPATIBILITIES: Strong oxidizing agents. Emits toxic fumes under fire conditions.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides, and hydrogen chloride gases.

11. TOXICOLOGICAL INFORMATION

RTECS NO: SO5600000. **Rat:** oral, LD50=1180 mg/kg; **Mouse:** oral LD50=3500 mg/kg. **Target organ or tissue:** Lung, (thorax or respiration). Blood (cyanosis). **POSSIBLE MUTAGEN.** SEE RTECS ENTRY FOR COMPLETE INFORMATION.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL INFORMATION

Dissolve or mix material with a combustible solvent and burn in a chemical incinerator with afterburner and scrubber. Observe all federal, state, local environmental regulations.

14. TRANSPORT INFORMATION

No information available.

15. REGULATORY INFORMATION

No information available.

16. OTHER INFORMATION	Reviewed by	BW, MJ
	Creation date	9/1/94
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