

# Material Safety Data Sheet

## General Information

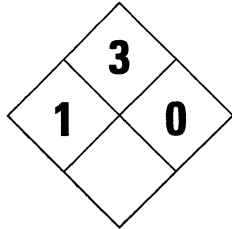
### Loeffler Methylene Blue Stain Solution

Component of Acid Fast Bacillus Kit

**Date Issued:** 7-1-96  
**Replaces:** N/A  
**Manufacturer:** Richard-Allan Scientific  
 225 Parsons Street  
 Kalamazoo, MI 49007  
 800 522 7270  
**CHEMTREC:** 800 424 9300 For transportation emergencies  
**Chemical Family:** Dye in Alcohol

Loeffler Methylene Blue Stain Solution  
Component of Acid Fast Bacillus Kit

## Hazard Symbology



**Health Hazard**  
 4 Deadly  
 3 Extreme danger  
 2 Hazardous  
 1 Slightly hazardous  
 0 Normal material

**Fire Hazard Flash Points**  
 4 Below 73° F  
 3 Below 100° F  
 2 Above 100° F, not exceeding 200° F  
 1 Above 200° F  
 0 Will not burn

**Reactivity**  
 4 May detonate  
 3 Shock & heat may detonate  
 2 Violent chemical change  
 1 Unstable if heated  
 0 Stable

**Specific Hazard**  
 ACID - Acid  
 COR - Corrosive  
 OXY - Oxidizer  
 P - Polymerization  
 ☼ - Radioactive  
 W - Use No Water

## Ingredients

Methylene Blue, Certified (C.I. 52015)  
 Sodium Hydroxide  
 Denatured Ethyl Alcohol

CAS No.	PEL	STEL	Agency
7220-79-3	8 hr. TWA		
1310-73-2	2 mg/m <sup>3</sup>	200 ppm	OSHA, ACGIH
64-17-5	1000 ppm		OSHA, ACGIH

## Physical Data

**Appearance and Odor:** Blue Liquid. Mild characteristic odor.  
**Boiling Point:** 79.5° C  
**Evaporation Rate:** 1.10 (Butyl Acetate = 1)  
**Percent Volatile by Volume:** 20%  
**Solubility in Water:** Complete  
**Specific Gravity:** 0.823 @ 21° C (Water = 1)  
**Vapor Density:** 1.57 (Air = 1)  
**Vapor Pressure:** 30 mm Hg

Richard-Allan Scientific believes the information herein to be correct and factual as of the issue date hereof. This information is furnished on the condition that the person receiving it shall make the determination as to the suitability of the material for his/her particular purpose and on the condition that he/she assume the risk of the use thereof.

Issue date 6-10-96

Signed Theresa M. Schluter

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## Fire and Explosion Hazard Data

**Flammability Class (OSHA):** IA  
**Flash Point (TCC):** 107° F  
**Flammable Limits in Air; % by Volume:** LOWER 3.3 (Ethanol)  
UPPER 19.0 (estimate, Ethanol)

**Extinguishing Media:** Water spray, carbon dioxide, dry chemical powder or foam. Water runoff, however, should be contained for treatment.

**Special Fire and Explosion Hazards:** Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by a flame source distant from material handling point. Can emit toxic fumes under fire conditions.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus with a full face piece operated in the positive pressure mode when fighting fires.

## Reactivity Data

**Stability:** Stable.

**Incompatibility:** Avoid contact with strong oxidizing agents.

**Hazardous Decomposition:** Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide.

**Hazardous Polymerization:** None.

## Health Hazard Data

**Skin Effects:** Prolonged or repeated contact can cause irritation, defatting, or dermatitis. Methylene Blue, Certified is a possible mutagen. Target organ: blood.

**Eye Effects:** Can cause severe irritation, redness, tearing, and blurred vision.

### Systemic Effects:

**Ingestion:** Can cause irritation to the digestive tract, nausea, vomiting, diarrhea, blindness, death.

**Inhalation:** Excessive inhalation of vapors can cause nasal and respiratory irritation, central nervous system effects including dizziness, weakness, fatigue, nausea, headache, unconsciousness, and even death.

**Chronic Effects of Exposure:** Overexposure to this material, or its components, have been suggested as a cause of the following effects in humans: Liver abnormalities, eye damage, and kidney damage.

## Protective Equipment

**Ventilation:** General mechanical ventilation or fume hood.

**Personal Protective Equipment:** Chemical resistant gloves; chemical safety goggles; and NIOSH/MSHA approved respirators are advised in the absence of proper environmental controls.

## Emergency and First Aid Procedures

**Skin Contact:** Remove contaminated clothing (including shoes) immediately. Wash the affected area of the body with soap or mild detergent and large amounts of water until no evidence of the chemical remains – at least 15 to 20 minutes.

**Eye Contact:** In case of eye contact, immediately flush eye with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Call a physician. If one should have appreciable eye irritation from an excessive exposure, one should be referred to an ophthalmologist for evaluation.

**Inhalation:** If affected by vapors, move patient to fresh air immediately. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration.

**Ingestion:** If swallowed, immediately wash out mouth with water provided the person is conscious. Never give anything by mouth to an unconscious person. Get medical attention immediately.

## Spill, Leak and Disposal Procedures

**Emergencies:** If a spill of appreciable quantity occurs, leave the area quickly unless you have specific emergency duties. Do not touch spilled material. Designated person may stop the leak and shut off ignition sources if these procedures can be done without risk. Designated persons should isolate the hazard area and deny entry except for necessary people protected by suitable protective clothing and respirators adequate for the exposure. Use water spray to reduce vapors. Do not smoke, and prohibit all flames or flares in the hazard area.

**Occupational Spill:** For small containers, place the leaking container in a well ventilated area. Take up small spills with absorbent material and transfer to hood. Place the waste into properly labeled containers for later disposal. For larger spills, dike the spill to minimize contamination and facilitate salvage or disposal. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers. Prevent run-off to sewers, streams, or other bodies of water. Your employer must comply with EPA rules regarding the clean-up of toxic waste and notify state and local authorities, if required.

**Waste Disposal:** Your employer must dispose of waste in accordance with applicable local, state and federal laws (each has unique requirements) and in a manner that minimizes exposure of employees at the site and of the clean-up crew.

## Shipping Information

**Storage Conditions:** Keep container closed. Keep away from heat and open flame. Store at room temperature: 15 - 30° C (59 - 86° F).

**Transportation:** DOT shipping name is 'Flammable Liquid, N.O.S.'. DOT hazard class is '3'.

**Shipping Containers:** Bottles.