MATERIAL SAFETY DATA SHEET (MSDS)

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EM SCIENCE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer.....:
EM SCIENCE
A Division of EM Industries
P.O. Box 70
480 Democrat Road
Gibbstown, N.J. 08027

Preparation Date.: 3/1/91

Information Phone Number.: 856-423-6300
Hours: Mon. to Fri. 8:30-5
Chemtrec Emergency Number: 800-424-9300
Hours: 24 hrs a day

Catalog Number(s):

BX1562

Product Name:
Bromothymol Blue, 0.04% Solution
Synonyms:
None
Chemical Family:
Triphenylmethane Dye Solution
Formula:
$C_{27}H_{27}Br_2NaO_5S$ in solution
Molecular Weight.:
646.39 (dye)

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS #	Appr %
Bromothymol Blue, Water Soluble	34722-90-2	0.04%
Water	7732-18-5	99.96%

Approx. % as wt/vol

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Handling care generally in keeping with safe laboratory practices is recommended.

Appearance:

Green liquid; at pH 6.0 yellow, at pH 7.6 blue

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

Symptoms of Exposure:
No harmful effects indicated from available information. Handling care generally in keeping with safe laboratory practices is recommended.

Medical Cond. Aggravated by Exposure:
Data not available.

Routes of Entry:
Inhalation, ingestion

Carcinogenicity:
The material is not listed (IARC, NTP, OSHA) as cancer causing agent.

4. FIRST AID MEASURES

Emergency First Aid:
GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.
Skin: Immediately flush thoroughly with large amounts of water.
Eyes: Immediately flush thoroughly with water for at least 15 minutes.
Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion: If conscious, drink water and induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash Point (F): Noncombustible
Flammable Limits LEL (%): N/A
Flammable Limits UEL (%): N/A
Extinguishing Media:
Use any suitable for adjacent material.

Fire Fighting Procedures:
Wear self-contained breathing apparatus.

Fire & Explosion Hazards:
None indicated

6. ACCIDENTAL RELEASE MEASURES

Spill Response:
Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under Exposure / Personal

Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if this can be done without risk. Take up and containerize for proper disposal as described under Disposal. Comply with Federal, State, and local regulations on reporting releases. Refer to Regulatory Information for reportable quantity and other regulatory data.

HANDLING AND STORAGE

Handling & Storage:
Keep container closed. Store at controlled room temperature. Do not breathe solution mist. Do not get in eyes, on skin, or on clothing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:
Ventilation, Respiratory Protection, Protective Clothing, Eye Protection:
Material should be handled or transferred in an approved fume hood or with adequate ventilation. Protective gloves should be worn to prevent skin contact (Neoprene or equivalent) Safety glasses with side shields should be worn at all times.

Work/Hygenic Practices:
Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

EXPOSURE GUIDELINES

OSHA - PEL:

	TWA		STEL		CL		
Component	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	Skin
Bromothymol Blue, Water Soluble							
Water							

ACGIH - TLV:

	TWA		STEL		CL		
Component	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	Skin
Bromothymol Blue, Water Soluble							
Water							

If there are no exposure limit numbers listed in the Exposure Guidelines chart, this indicates that no OSHA or ACGIH exposure limts have been established.

9. PHYSICAL AND CHEMCIAL PROPERTIES

Boiling Point (C 760 mmHg) : N/A
Melting Point (C) : N/A

Specific Gravity (H_20 = 1) : N/A
Vapor Pressure (mm Hg) : N/A
Percent Volatile by vol (%): N/A
Vapor Density (Air = 1) : N/A
Evaporation Rate (BuAc = 1): N/A
Solubility in Water (%) : Soluble
Appearance :
Green liquid; at pH 6.0 yellow, at pH 7.6 blue

10. STABILITY AND REACTIVITY

Stability: Yes

Hazardous Polymerization:
Does not occur

Hazardous Decomposition:
Traces of bromine, SO_x, CO_x

Conditions to Avoid:
None indicated

Materials To Avoid:

( ) Water
( ) Acids
( ) Bases
( ) Corrosives
( ) Oxidizers
(X) Other: none indicated

11. TOXICOLOGICAL INFORMATION

Toxicity Data

None established.

Toxicological Findings:
None
Cited in Registry of Toxic Effects of Chemical Substances (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA Waste Numbers:

Treatment:
Material does not have an EPA Waste number and is not a listed waste, however consultation with a permitted waste

disposal site (TSD) should be accomplished.
ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

1[illegible]TRANSPORT INFORMATION

DOT Proper Shipping Name:
non-regulated

DOT ID Number :
none

14. REGULATORY INFORMATION

TSCA Statement:
This product is a "Mixture". The CAS numbers of all components are listed on the TSCA Inventory.

Component	SARA EHS (302)	SARA EHS TPQ (lbs)	CERCLA RQ (lbs)
Bromothymol Blue, Water Soluble			
Water			

Component	OSHA Floor List	SARA 313	DeMinimis for SARA 313 (%)
Bromothymol Blue, Water Soluble			
Water			

If there is no information listed on the regulatory information chart, this indicates that the chemical is not covered by the specific regulation listed.

15. OTHER INFORMATION

Comments:
None

NFPA Hazard Ratings:

[illegible]th : 0
Flammability : 0
Reactivity : 0
Special Hazards :

Revision History: 9/29/86 6/30/87 8/10/88

| = Revised Section

N/A = Not Available

N/E = None Establised

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