

Safety Data Sheet

METHYLENE BLUE – AZURE B STAINING SOLUTION

Section 1 - Chemical Product and Company Identification

SDS Name: Methylene Blue – Azure B Staining Solution

Catalog Numbers: B-155-2

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H302-Acute toxicity, oral: 4

H316-Skin corrosion/irritation: 3

H319-Serious eye damage/eye irritation: 2A

H360-Reproductive toxicity: 1B

Pictograms or Hazard symbols and Hazard statement(s):



Signal word: Danger

Hazard statements:

H302-Harmful if swallowed

H316-Causes mild skin irritation

H319-Causes serious eye irritation

H360-May damage fertility or the unborn child

Precautionary Statements:

P201-Obtain special instructions before use.

P202-Do not handle until all safety precautions have been read and understood.

P264-Wash thoroughly after handling.

P270-Do not eat, drink, or smoke when using this product.

P280-Wear eye protection/face protection.

P281-Use personal protective equipment as required.

P301+P312-If swallowed: Call a Poison Center or doctor/physician if you feel unwell.

P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313-If exposed or concerned: Get medical advice/attention.

P330-Rinse mouth.

P332+P313-If skin irritation occurs: Get medical advice/attention.

P337+P313-If eye irritation persists: Get medical advice/attention.

P405-Store locked up.

P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7220-79-3	Methylene Blue	0.25 w/v
531-55-5	Azure B	0.25 w/v
1303-96-4	Sodium tetraborate decahydrate	0.25 w/v
7732-18-5	Water	balance

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical advice.

Oral Exposure: If swallowed, seek immediate medical advice.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray or alcohol-resistant foam.

Hazardous Combustion Products: Carbon oxides, nitrogen oxides, sulfur oxides, borane/boron oxides, sodium oxides, hydrogen chloride gas, irritating toxic fumes and gases.

Flash Point: Not available

Autoignition Temperature: Not available

Explosion Limits, Lower: Not available

Upper: Not available

NFPA Rating: (estimated) Health: 2; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Ensure adequate ventilation. Wash thoroughly after handling. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Store in a tightly closed container at room temperature. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Methylene Blue CAS# 7220-79-3	Not listed	Not listed	Not listed
Azure B CAS# 531-55-5	Not listed	Not listed	Not listed
Sodium tetraborate decahydrate CAS# 1303-96-4	2 mg/m3 TWA 6 mg/m3 STEL	5 mg/m3 TWA	10 mg/m3 TWA (vacated)

Section 9 - Physical and Chemical Properties
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Physical State: Liquid

Appearance: Dark Blue

Odor: Odorless

Vapor Pressure: Not available

Odor threshold: Not available

Vapor Density: Not available

pH: Not available

Relative density: Not available

Melting point/freezing point: Not available

Solubility: Soluble in water

Boiling Point: Not available

Flash point: Not available

Evaporation Rate: Not available

Flammability (solid, gas): Not available

Partition coefficient: n-octanol/water: Not available

Auto-ignition temperature: Not available

Decomposition temperature: Not available

Viscosity: Not available

Specific Gravity/Density: Not available

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Direct sunlight. Incompatible materials, ignition sources, excess heat, freezing, and exposure to air.

Incompatibilities with Other Materials: Strong oxidizing agents, strong acids, and finely powdered metals.

Hazardous Decomposition Products: Carbon oxides, nitrogen oxides, sulfur oxides, borane/boron oxides, sodium oxides, hydrogen chloride gas, irritating toxic fumes and gases.

Section 11 - Toxicological Information

CAS#7220-79-3 Methylene Blue: RTECS#: SP5740000

LD50 Oral: Not available

LD50 Dermal: Not available

LC50 Inhalation: Not available

Carcinogenicity: Methylene Blue CAS#7220-79-3 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

CAS#531-55-5 Azure B: RTECS#: SO5550000

LD50 Oral: Not available

LD50 Dermal: Not available

LC50 Inhalation: Not available

Carcinogenicity: Azure B CAS#531-55-5 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

CAS#1303-96-4 Sodium tetraborate decahydrate: RTECS#: VZ2275000

LD50 Oral: 5660 mg/kg (rat)

LD50 Dermal: >2000 mg/kg (rabbit)

LC50 Inhalation: 2.03 mg/L (rat)

Carcinogenicity: Sodium tetraborate decahydrate CAS#1303-96-4 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

Epidemiology: Not available

Teratogenicity: May cause harm to the unborn child.

Reproductive Effects: Experiments with Sodium tetraborate decahydrate have shown reproductive toxicity effects on laboratory animals.

Developmental Effects: Not available

Neurotoxicity: Not available

Mutagenicity: Not available

Specific Target Organ Toxicity, Single Exposure: Not available

Specific Target Organ Toxicity, Repeated Exposure: Not available

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains.

CAS#1303-96-4 Sodium tetraborate decahydrate:

EC50, freshwater algae: 2.6-21.8 mg/L 96h

EC50, freshwater algae: 158 mg/L 96h

LC50, freshwater fish: 340 mg/L 96h (pimephales promelas)

LC50, freshwater fish: 708 mg/L 96h (pimephales promelas)
EC50, water flea: 1085-1402 mg/L 48h

Persistence and degradability: Not available

Bio-accumulative potential: Not available

Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT

Non-regulated

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 11-15-17

Revision #1. 2-25-22

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