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Oxford
Range of
Laboratory Chemicals

MATERIAL SAFETY DATA SHEET

METHYL BLUE

(For Microscopy)

MSDS CAS: 28983-56-4

According to Regulation (EC) No. 1907/2006 (REACH)

Issue date: 18-11-2023 Revision date: 18-11-2023

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: METHYL BLUE

CAS NO: 28983-56-4

C.I.NO.: 42780

Synonym: (4-(bis(4-(Sulfophenyl)amino)phenyl)methylene)-2,5-cyclohexadien-1-ylidene)amino)benzenesulfonic acid

Chemical Name: Not available.

Chemical Formula: $C_{37}H_{27}N_3O_9S_3Na_2$

Brand: OXFORD

Details Of The Supplier Of The Safety Data Sheet:

Company identification: **OXFORD LAB FINE CHEM LLP**
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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS NO	% by Weight
METHYL BLUE	28583-56-4	≤100%

Section 3: Hazards Identification

Toxicological Data on Ingredients: **Methyl blue LD50: Not available. LC50: Not available.**

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Slightly hazardous in case of skin contact (permeator), of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation: **Allow the victim to rest in a well ventilated area. Seek immediate medical attention.**

Serious Inhalation: **Not available.**

Ingestion:

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: **Not available.**

Section 5: Fire and Explosion Data

Flammability of the Product: **May be combustible at high temperature.**

Auto-Ignition Temperature: **Not available.**

Flash Points: **Not available.**

Flammable Limits: **Not available.**

Products of Combustion: **These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...), sulfur oxides (SO2, SO3...). Some metallic oxides.**

Fire Hazards in Presence of Various Substances: **Not available.**

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use alcohol foam, water spray or fog.

Special Remarks on Fire Hazards: **Not available.**

Special Remarks on Explosion Hazards: **Not available.**

Section 6: Accidental Release Measures

Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. Wear suitable protective clothing if you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes.

Storage:

Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: **Not available.**

Section 9: Physical and Chemical Properties

Physical state	**: Solid.**
Odor	**: Odourless.**
Taste	**: Not available.**
Molecular Weight	**: 799.81 g/mol**
Color	**: Bluish black powder**

Section 9: Physical and Chemical Properties (Continued)

pH (1% soln/water)	**: Not available.**
Boiling Point	**: Not available.**
Melting Point	**: Decomposes.**
Critical Temperature	**: Not available.**
Specific Gravity	**: Not available.**
Vapor Pressure	**: Not available.**
Vapor Density	**: Not available.**
Volatility	**: Not available.**
Odor Threshold	**: Not available.**
Water/Oil Dist. Coeff.	**: Not available.**
Ionicity (in Water)	**: Not available.**
Solubility	**: Water: Soluble in water.**

Section 10: Stability and Reactivity Data

Stability: **The product is stable.**

Instability Temperature: **Not available.**

Conditions of Instability: **Not available.**

Incompatibility with various substances: **Not available.**

Corrosivity: **Non-corrosive in presence of glass.**

Special Remarks on Reactivity: **Not available.**

Special Remarks on Corrosivity: **Not available.**

Polymerization: **No.**

Section 11: Toxicological Information

Routes of Entry: **Eye contact. Ingestion.**

Section 11: Toxicological Information (Continued)

Toxicity to Animals: **LD50: Not available. LC50: Not available.**

Chronic Effects on Humans: **The substance is toxic to lungs, mucous membranes.**

Other Toxic Effects on Humans:
Hazardous in case of skin contact (irritant), of ingestion. Slightly hazardous in case of skin contact (permeator), of inhalation.

Special Remarks on Toxicity to Animals: **Not available.**

Special Remarks on Chronic Effects on Humans: **Not available.**

Special Remarks on other Toxic Effects on Humans: **Not available.**

Section 12: Ecological Information

Ecotoxicity: **Not available.**

BOD5 and COD: **Not available.**

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: **The products of degradation are more toxic.**

Special Remarks on the Products of Biodegradation: **Not available.**

Section 13: Disposal Considerations

Waste treatment

Section 14: Transport Information

Land transport (ADR-RID)

General information : **Not regulated.**

Sea transport (IMDG) [English only]

General information : **Not regulated.**

Air transport (ICAO-IATA) [English only]

General information : **Not regulated.**

Section 15: Other Regulatory Information

Federal and State Regulations: **TSCA 8(b) inventory: Methyl blue**

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:
WHMIS (Canada): CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
DSCL (EEC): R36/38- Irritating to eyes and skin.

HMIS (U.S.A.):
Health Hazard: 2
Fire Hazard: 1
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):
Health: 2
Flammability: 1
Reactivity: 0
Specific hazard:

Section 15: Other Regulatory Information (Continued)

Protective Equipment:

Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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