

OXFORD LAB FINE CHEM LLP

ISO 9001-2008 Certified Company

Regd Office: Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
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MATERIAL SAFETY DATA SHEET

2-Bromo-2-nitro-1,3-propanediol 98% **(For Synthesis)** **(Bronopol)** **MSDS CAS: 52-51-7**

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: 2-Bromo-2-nitro-1,3-propanediol 98%

CAS#: 52-51-7

Synonym: Bronopol

Chemical Name: Not available.

Chemical Formula: C₃H₆BrNO₄

Brand: OXFORD

Details Of The Supplier Of The Safety Data Sheet:

Company identification: OXFORD LAB FINE CHEM LLP
Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,
Navghar, Vasai (East). Palghar - 401 210.
Mumbai, Maharashtra, INDIA.
Tel: 91-250-2390989
Tel/Fax: 91-250-2390032

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
2-Bromo-2-nitro-1,3-propanediol	52-51-7	100

Section 3: Hazards Identification

Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral(Category 4), H302

Acute toxicity, Dermal(Category 4), H312

Skin irritation(Category 2), H315

Serious eye damage

(Category 1), H318

Specific target organ toxicity -single exposure(Category 3), Respiratory system, H335

Acute aquatic toxicity(Category 1), H400

Chronic aquatic toxicity(Category 1), H410

Hazard statement(s)

H302 + H312 Harmful if swallowed or in contact with skin

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P273 Avoid release to the environment.

P280 Wear eye protection/ face protection.

P280 Wear protective gloves/ protective clothing.

P302 + P352 + P312

IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338 + P310 IF IN EYES:

Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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Section 4: First Aid Measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled:

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed:

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5: Fire and Explosion Data

Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters:

Wear self contained breathing apparatus for fire-fighting if necessary.

Section 6: Accidental Release Measures

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

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Section 7: Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage, including any incompatibilities: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Storage class (TRGS 510): Flammable solid hazardous materials.

Section 8: Exposure Controls/Personal Protection

Personal protective equipment

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Section 9: Physical and Chemical Properties

Appearance Form : crystalline
Colour : beige

Section 9: Physical and Chemical Properties (Continued)

Molecular Weight	: 199.99 g/mole
pH	: 5-7
Melting point	: 30 -133 °C-lit.
Boiling point	: No data available
Flash point	: 167 °C
Ignition temperature	: No data available
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Density	: No data available
Water solubility	: 280 g/l at 23 °C
Partition coefficient: n-octanol/water	log Pow: log Pow : 0.18

Section 10: Stability and Reactivity Data

Storage stability: Stable under recommended storage conditions.

Materials to avoid: Strong oxidizing agents, Strong bases, Strong reducing agents

Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO_x), Hydrogen bromide gas.

Section 11: Toxicological Information

Acute toxicity:

LD50 Oral-Rat-305 mg/kg(2-Bromo-2-nitropropane-1,3-diol)

LC50 Inhalation-Rat-4 h-0.588 mg/l(2-Bromo-2-nitropropane-1,3-diol)

LD50 Dermal-Rat-1,600 mg/kg(2-Bromo-2-nitropropane-1,3-diol)

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Section 11: Toxicological Information (Continued)

Irritation and corrosion: Skin irritation.

Sensitisation: Maximisation Test-Guinea pig(2-Bromo-2-nitropropane-1,3-diol)Result: Does not cause skin sensitisation.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Section 12: Ecological Information

Elimination information (persistence and degradability):

Biodegradability: Result: 50 %-Partially biodegradable.(OECD Test Guideline 302B).

Bioaccumulative potential:

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Results of PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects:

Very toxic to aquatic life with long lasting effects.

Section 13: Disposal Considerations

Product: Offer surplus and non-recyclable solutions to a licensed disposal company.Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging: Dispose of as unused product.

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Section 14: Transport Information

Land transport (ADR-RID)

Proper shipping name: 2-BROMO-2-NITROPROPANE-1,3-DIOL

UN N°: 3241

ADR - Class: -

Labelling - Transport: 4.1

ADR - Group: III

Sea transport (IMDG) [English only]

Proper shipping name: 2-BROMO-2-NITROPROPANE-1,3-DIOL

UN N°: 3241

IMO-IMDG - Class or division: 4.1

IMO-IMDG - Packing group: III

Air transport (ICAO-IATA) [English only]

Proper shipping name: 2-BROMO-2-NITROPROPANE-1,3-DIOL

UN N°: 3241

IATA - Class or division: 4.1

IATA - Packing group: III

Section 15: Other Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Chemical safety assessment:

For this product a chemical safety assessment was not carried out.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

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