



SODIUM HYPOBROMITE

MATERIAL SAFETY DATA SHEET SDS/MSDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Sodium Hypobromite

Product code. : 892215

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Central Drug House (P) Ltd
7/28 Vardaan House
Ansari Road Daryaganj
New Delhi-110002
INDIA

Telephone : +91 11 49404040

Email : care@cdhfinechemical.com

Emergency telephone number

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

| Hazard Class | Category | Hazard Statement | Precautionary Statements |
|--|------------|------------------|--|
| Acute Toxicity - Inhalation | Category 3 | H331 | P261, P271, P304+P340, P311, P321, P403+P233, P405, P501 |
| Skin Corrosion / Irritation | Category 2 | H315 | P264, P280, P302+P352, P321, P332+P313, P362 |
| Hazardous to the Aquatic Environment (Acute) | Category 3 | H402 | P273, P501 |
| Hazardous to the Aquatic Environment (Chronic) | Category 3 | H402 | P273, P501 |

2.1. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

| Hazard Number | Hazard Statement |
|---------------|--------------------------|
| H315 | Causes skin irritation. |
| H331 | Toxic if inhaled. |
| H402 | Harmful to aquatic life. |

Precautionary Statements:

| Precautionary Number | Precautionary Statement |
|----------------------|---|
| P261 | Avoid breathing dust, fumes or mist. |
| P264 | Wash arms, hands and face thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves and eye protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P311 | Call a POISON CENTER or physician. |
| P321 | Specific treatment (Wash areas of contact with water immediately). |
| P332+P313 | If skin irritation occurs: Get medical attention. |
| P362 | Take off contaminated clothing and wash it before reuse. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents in accordance with local, state, federal and international regulations. |

2.2. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

2.3. Hazards not Otherwise Classified or Covered by GHS

Data not available.

SECTION 3: Composition/information on ingredients

3.1. Components of Substance or Mixture

| Chemical Name | Formula | Molecular Weight | CAS Number | Weight% |
|------------------|------------------|------------------|------------|---------|
| Water | H ₂ O | 18.01 g/mol | 7732-18-5 | 98.34% |
| Bromine | Br ₂ | 159.80 g/mol | 7726-95-6 | 0.92% |
| Sodium Hydroxide | NaOH | 39.99 g/mol | 1310-73-2 | 0.74% |

SECTION 4: First aid measures

4.1. General First Aid Information

Eye Contact: No action required to be taken. If necessary, rinse eyes with water.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN: Wash with plenty of soap and water.

Ingestion: No action required to be taken. If necessary, dilute with water.

4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause mild irritation to areas of contact.

4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water immediately).

SECTION 5: Firefighting measures

5.1. Extinguishing Media

Not considered to be a fire or explosion hazard.

5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment for Firefighters

Wear protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental release measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Absorb with suitable material and dispose of in accordance with local regulations.

SECTION 7: Handling and storage

7.1. Precautions for Safe Handling and Storage Conditions

Store locked up.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Chemical Name | Limit Type | Country | Exposure Limit | Information Source |
|------------------------------|-------------|---------|--|--|
| Bromine (7726-95-6) | TWA | USA | 0.1 ppm TWA 0.7 mg/m ³ TWA | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Bromine (7726-95-6) | TLV-STEL | USA | 0.2 ppm STEL | ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL) |
| Bromine (7726-95-6) | TLV-TWA | USA | 0.1 ppm TWA | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA) |
| Sodium Hydroxide (1310-73-2) | TWA | USA | 2 mg/m ³ TWA | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs) |
| Sodium Hydroxide (1310-73-2) | TLV-Ceiling | USA | 2 mg/m ³ Ceiling | ACGIH - Threshold Limit Values - Ceilings (TLV-C) |

8.1. Exposure Controls

- Engineering Controls** : Use only outdoors or in a well-ventilated area.
- Respiratory Protection** : No specific controls are needed. Normal room ventilation is adequate
- Skin Protection** : Wear protective gloves and eye protection.
- Eye Protection** : Wear protective gloves and eye protection.

8.2. Personal Protective Equipment

Wear protective gloves and eye protection.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------------|
| Appearance | Yellow liquid |
| Physical State | Liquid |
| Odor | Data not available. |
| Odor Threshold | Data not available. |
| pH: | Data not available. |
| Melting/Freezing Point | 0.0°C |
| Initial Boiling Point /Range | 100°C - 100°C |
| Flash Point | Data not available. |
| Evaporation Rate | Data not available. |
| Flammability | Data not available. |
| Flammability/Explosive Limits | Data not available. |
| Vapor Pressure | Data not available. |
| Vapor Density | Data not available. |
| Relative Density | 1.0 |
| Solubility | Miscible |
| Partition Coefficient (n-Octanol/Water) | Data not available. |
| Auto-Ignition Temperature | Data not available. |
| Decomposition Temperature | Data not available. |
| Viscosity | Data not available. |
| Explosive Properties | Data not available. |
| Oxidizing Properties | Data not available. |

SECTION 10: Stability and reactivity

10.1 Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Protect from freezing and physical damage.

10.4. Hazardous Decomposition Products

May emit irritating fumes when heated to decomposition.

SECTION 11: Toxicological information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Toxic if inhaled. Avoid breathing dust, fumes or mist. Use only outdoors or in a well-ventilated area. IF INHALED:

Remove person to fresh air

and keep comfortable for breathing. Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately).

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Acute Toxicity - Other Information:

Data not available.

Skin Corrosion and Irritation:

Causes skin irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF ON SKIN: Wash

with plenty of soap and water. Specific treatment (Wash areas of contact with water immediately). If skin irritation

occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Serious Eye Damage and Irritation:

Not applicable.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.

Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

SECTION 12: Ecological information

12.1 Ecotoxicity

Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and International regulations. Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal considerations

13.1. Waste Treatment Methods

Data not available.

SECTION 14: Transport information

14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.

14.2. Transportation by Air – International Air Transport Association (IATA)

UN Number: N/A

Proper Shipping Name:

Hazard Class:

Packing Group:

Hazard Placard Labels:

SECTION 15: Regulatory information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Bromine (CAS # 7726-95-6): 500 lb EPCRA RQ

Bromine (CAS # 7726-95-6): 500 lb TPQ

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Sodium Hydroxide (CAS # 1310-73-2): 1000 lb final RQ; 454 kg final RQ

Bromine (CAS # 7726-95-6): 10 curie final RQ; 0.37 TBq final RQ

Bromine (CAS # 7726-95-6): 100 curie final RQ; 3.7 TBq final RQ

Bromine (CAS # 7726-95-6): 1000 curie final RQ; 37 TBq final RQ

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Bromine (CAS # 7726-95-6): 1.0 % de minimis concentration

15.5. Massachusetts Right-to-Know Substance List

Sodium Hydroxide (CAS # 1310-73-2): Present
Bromine (CAS # 7726-95-6): Extraordinarily hazardous

15.6. Pennsylvania Right-to-Know Hazardous Substances

Sodium Hydroxide (CAS # 1310-73-2): Environmental hazard
Sodium Hydroxide (CAS # 1310-73-2): Present
Bromine (CAS # 7726-95-6): Environmental hazard
Bromine (CAS # 7726-95-6): Present

Water (CAS # 7732-18-5): Present

15.7. New Jersey Worker and Community Right-to-Know Components

Sodium Hydroxide (CAS # 1310-73-2): corrosive
Sodium Hydroxide (CAS # 1310-73-2): sn 1706
Bromine (CAS # 7726-95-6): corrosive
Bromine (CAS # 7726-95-6): sn 0252
Bromine (CAS # 7726-95-6): SN 0252 TPQ: 500 lb

15.8. California Proposition 65

Not listed.

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Sodium Hydroxide (CAS # 1310-73-2): Present
Bromine (CAS # 7726-95-6): Present
Water (CAS # 7732-18-5): Present

15.10. United States of America Toxic Substances Control Act (TSCA) List

Sodium Hydroxide (CAS # 1310-73-2): Present
Bromine (CAS # 7726-95-6): Present
Water (CAS # 7732-18-5): Present

**15.11. European Inventory of Existing Commercial Chemical Substances (EINECS),
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)**

Not listed.

SECTION 16: Other information

16.1. Full Text of Hazard Statements and Precautionary Statements

Causes skin irritation. Toxic if inhaled. Harmful to aquatic life.
Avoid breathing dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves and eye protection.
IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Store in a well-ventilated place. Keep container tightly closed. Store locked up

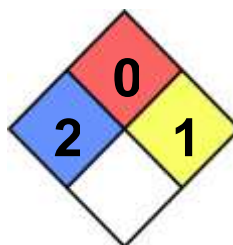
Dispose of contents in accordance with local, state, federal and international regulations.

16.1. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class Not Applicable.
Physical Hazards Not Otherwise Classified (PHNOC) Not Applicable.
Health Hazards Not Otherwise Classified (HHNOC) Not Applicable.
Biohazardous Infectious Materials Hazard Class Not Applicable.

16.2. National Fire Protection Association (NFPA) Rating

Health: 2
Flammability: 0
Reactivity: 1
Special Hazard:



Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.