

ROSS CHEM COMPANY LIMITED .

Revision number: 2

Revision date: 09/05/2019

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SAFETY DATA SHEET

1. IDENTIFICATION

Product name: 1-Bromopropane
Company: ROSS CHEM COMPANY LIMITED .
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Responsible Department: Sales Department
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Revision number: 2

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

PHYSICAL HAZARDS

Flammable liquids Category 3

HEALTH HAZARDS

Acute toxicity (Inhalation) Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Germ cell mutagenicity Category 1B
Specific target organ toxicity
- Single exposure [Category 3] Respiratory tract irritation, Narcotic effects
Specific target organ toxicity
- Repeated exposure [Category 1] Central nervous system

ENVIRONMENTAL HAZARDS

Acute aquatic hazard Category 3
Long-term aquatic hazard Category 3

Label elements

Pictograms or hazard symbols



Signal word
Hazard statements

Danger
Flammable liquid and vapour
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause genetic defects
Causes damage to organs through prolonged or repeated exposure : Central nervous system
May cause respiratory irritation
May cause drowsiness or dizziness
Harmful to aquatic life
Harmful to aquatic life with long lasting effects

Precautionary statements
[Prevention]

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames and hot surfaces. -No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Do not breathe mist, vapors or spray.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

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

Wash hands and face thoroughly after handling.

Wear protective gloves, protective clothing, face protection.

[Response]

IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

IF exposed or concerned: Get medical advice or attention.

[Storage]

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

Store locked up.

[Disposal]

Dispose of contents and container in accordance with local, regional, national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| | |
|---------------------------|----------------------------------|
| Substance/mixture: | Substance |
| Components: | 1-Bromopropane |
| Percent: | >98.0%(GC) |
| CAS RN: | 106-94-5 |
| Synonyms: | Propyl Bromide |
| Chemical Formula: | C ₃ H ₇ Br |

4. FIRST AID MEASURES

| | |
|------------------------------------|--|
| Inhalation: | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention. |
| Skin contact: | Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/attention. |
| Eye contact: | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. |
| Ingestion: | Get medical advice/attention. Rinse mouth. |
| Protection of first-aiders: | A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles. |

5. FIRE-FIGHTING MEASURES

| | |
|---|---|
| Suitable extinguishing media: | Dry chemical, foam, water spray, carbon dioxide. |
| Unsuitable extinguishing media: | Solid streams of water |
| Specific hazards arising from the chemical: | Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume. |
| Precautions for firefighters: | Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Keep containers cool by spraying with water. Eliminate all ignition sources if safe to do so. |
| Special protective equipment for firefighters: | When extinguishing fire, be sure to wear personal protective equipment |

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Use extra personal protective equipment (self-contained breathing apparatus).
Keep people away from and upwind of spill/leak. Ensure adequate ventilation.
Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

**Environmental precautions:
Methods and materials for containment and cleaning up:**

Prevent product from entering drains.
Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding.
Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

Prevention of secondary hazards:

Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures:

Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling.

Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated.

Advice on safe handling: Avoid all contact!

Conditions for safe storage, including any incompatibilities

Storage conditions:

Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up.

Store away from incompatible materials such as oxidizing agents.

Packaging material:

Comply with laws.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:

Install a closed system or local exhaust. Also install safety shower and eye bath.

Exposure limits:

ACGIH TLV(TWA): 0.1 ppm

Personal protective equipment

Respiratory protection:

Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.

Hand protection:

Impervious gloves.

Eye protection:

Safety goggles. A face-shield, if the situation requires.

Skin and body protection:

Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| Physical state (20°C): | Liquid |
| Form: | Clear |
| Colour: | Colorless - Almost colorless |
| Odour: | No data available |
| pH: | No data available |
| Melting point/freezing point: | -110°C |
| Boiling point/range: | 71°C |
| Flash point: | 25°C |
| Flammability or explosive limits: | |
| Lower: | 4.6% |
| Upper: | No data available |
| Vapour pressure: | 13.3kPa/18°C |
| Vapour density: | 4.3 |
| Relative density: | 1.36 |
| Solubility(ies): | |
| [Water] | Very slightly soluble (0.25g/100mL, 20°C) |
| [Other solvents] | |
| Miscible: | Ether, Alcohols |
| Soluble: | Benzene, Acetone |
| Log Pow: | 2.25 |
| Autoignition temperature: | 490°C |

10. STABILITY AND REACTIVITY

| | |
|--|---|
| Chemical stability: | Stable under proper conditions. |
| Possibility of hazardous reactions: | No special reactivity has been reported. |
| Conditions to avoid: | Spark, Open flame, Static discharge |
| Incompatible materials: | Oxidizing agents, Strong bases |
| Hazardous decomposition products: | Carbon dioxide, Carbon monoxide, Hydrogen bromide |

11. TOXICOLOGICAL INFORMATION

| | |
|---------------------------------------|---|
| Acute Toxicity: | ihl-rat LC50:19700 mg/m ³ ipr-mus LD50:1210 mg/kg ipr-rat LD50:2950 mg/kg orl-rat LD50:3600 mg/kg |
| Skin corrosion/irritation: | No data available |
| Serious eye damage/irritation: | No data available |
| Germ cell mutagenicity: | No data available |
| Carcinogenicity: | |
| IARC = | No data available |
| NTP = | No data available |
| Reproductive toxicity: | ihl-rat TCLo:821 ppm/8H (12W male) orl-rat TDLo:2 g/kg (5D male) |
| RTECS Number: | TX4110000 |

12. ECOLOGICAL INFORMATION

Ecotoxicity:

| | |
|--------------------------------------|--|
| Fish: | 96h LC50:67.3 mg/L (Pimephales promelas) |
| Crustacea: | No data available |
| Algae: | No data available |
| Persistence / degradability: | 70 % (by BOD) , 41 % (by HPLC) |
| Bioaccumulative potential(BCF): | 23 |
| Mobility in soil | |
| Log Pow: | 2.25 |
| Soil adsorption (Koc): | 330 |
| Henry's Law (PaM ³ /mol): | 742 |

13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

| | |
|-----------------------|----------------------|
| Hazards Class: | 3: Flammable liquid. |
| UN-No: | 2344 |
| Proper shipping name: | Bromopropanes |
| Packing group: | III |

15. REGULATORY INFORMATION

Regulations on the Control over Safety of Dangerous Chemicals (State Council announces on January 26, 2002 and revised on February 16,2011): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

This product is included in the list of dangerous chemicals(2015)/Serial No.: 2390

16. OTHER INFORMATION

The reference company name of written contents

| | |
|----------------------|--|
| Company: | ROSS CHEM COMPANY LIMITED. |
| Address: | No. 227.NanYi Road, Dongying City, Shandong Province, China 257091 |
| Department: | Technical Information Department |
| Emergency telephone: | +86 546 8275057 |
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This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.