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

Catalogue Number	CS-T-08254
Product Name	Bromoethane
CAS No.	74-96-4
Category	Fine Chemicals
Synonyms	bromoethane
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Serious eye damage/eye irritation (Category 2)
Acute toxicity (Category 4)

2.2 Label Elements

Signal Word: Warning

Hazard Statement(s)

Code	Statement
H225	Not available
H302	Harmful if swallowed.
H332	Harmful if inhaled.

H351	Not available
H302+H332	Harmful if swallowed. Harmful if inhaled.
H420	Not available
H316	Not available
H319	Causes serious eye irritation.
H333	Not available
H336	Not available
H361	Not available
H370	Not available
H373	Not available

Precautionary Statement(s)

Code	Statement
P203	Not available
P210	Not available
P233	Not available
P240	Not available
P241	Not available
P242	Not available
P243	Not available
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Not available
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P317	Not available
P303+P361+P353	Not available
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P317	Not available
P318	Not available

P330	Not available
P370+P378	Not available
P403+P235	Not available
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio
P502	Not available
P260	Not available
P264+P265	Not available
P304+P317	Not available
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if presen
P308+P316	Not available
P319	Get medical help if you feel unwell.
P321	Specific treatment (see … on this label).
P332+P317	If skin irritation occurs: Get medical help.
P337+P317	If eye irritation persists: Get medical help.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Bromoethane
CAS Number : 74-96-4
Molecular Formula : C2H5Br
Molecular Weight : 108.96
Parent Chemical : -
Synonyms : bromoethane
Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures
- General advice: Remove from exposure. Show this SDS to the physician in attendance.
- Inhalation: Move person to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, seek medical attention.
- Skin contact: Remove contaminated clothing and shoes. Wash skin with plenty of water and soap.

- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
- Ingestion: Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed
- Not available.

4.3 Indication of any immediate medical attention and special treatment needed
- Treat symptomatically. No data available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media
- Suitable extinguishing media: Dry chemical, carbon dioxide (CO2), alcohol-resistant foam.
- Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture
- Flammable liquid and vapor.
- Vapors may form explosive mixtures with air.
- Hazardous combustion products may include: Hydrogen bromide (HBr), carbon oxides.

5.3 Advice for firefighters
- Wear self-contained breathing apparatus (SCBA) and full protective gear.
- Use water spray to cool unopened containers.
- Fight fire from a safe distance and protected location.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Evacuate unnecessary personnel.
- Eliminate all ignition sources. No smoking.
- Provide adequate ventilation.
- Avoid breathing vapors/mist. Avoid contact with skin and eyes.
- Wear appropriate personal protective equipment (see Section 8).

6.2 Environmental precautions
- Prevent further leakage or spillage if safe to do so.
- Do not allow product to enter drains, waterways, or soil.

6.3 Methods and material for containment and cleaning up
- Contain spill with inert absorbent material (e.g., sand, vermiculite).
- Collect in suitable, closed containers for disposal.
- Use non-sparking tools and explosion-proof equipment.

6.4 Reference to other sections
- See Section 8 for exposure controls/personal protection and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Handle in accordance with good industrial hygiene and safety practice.
- Use only with adequate ventilation (preferably in a chemical fume hood).
- Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
- Avoid breathing vapors. Avoid contact with skin, eyes, and clothing.
- Use non-sparking tools. Ground/bond container and receiving equipment.

7.2 Conditions for safe storage, including any incompatibilities
- Store in a cool, dry, well-ventilated place.
- Keep container tightly closed.
- Store away from ignition sources.
- Incompatible materials: Strong oxidizing agents; strong bases; strong reducing agents. (No data available for complete incompatibility list.)

7.3 Specific end use(s)
- Fine chemical / laboratory use. No data available for additional specific uses.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
- Occupational exposure limits: Not available.
- Biological limit values: Not available.

8.2 Exposure controls
- Engineering controls: Use local exhaust ventilation or general ventilation to maintain exposure below applicable limits. Use explosion-proof ventilation where required.
- Personal protective equipment (PPE):
- Eye/face protection: Safety glasses with side shields or chemical splash goggles.
- Skin protection: Chemical-resistant gloves. Select glove material based on permeation/compatibility data (not available).
- Body protection: Lab coat or chemical-resistant protective clothing as appropriate.
- Respiratory protection: If ventilation is inadequate, use an approved respirator suitable for organic vapors. Selection must comply with applicable regulations.
- Hygiene measures: Wash hands after handling. Remove contaminated clothing and wash before reuse.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available

Test	Result
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

SECTION 10: Stability and reactivity

10.1 Reactivity
- No data available.

10.2 Chemical stability
- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
- No data available.

10.4 Conditions to avoid
- Heat, flames, sparks, and other ignition sources.
- Static discharge.

10.5 Incompatible materials
- Strong oxidizing agents; strong bases; strong reducing agents. No data available for complete list.

10.6 Hazardous decomposition products
- Hydrogen bromide (HBr), carbon oxides. No data available for additional decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: HUMAN STUDIES: Limited human experience during surgical anesthesia has indicated that, in addition to CNS depression, there is a possibility of lung congestion and degeneration of the liver and kidney tissues. Symptoms of exposure include irritation of the skin, eyes, mucous membranes, and upper respiratory tract; CNS depression; lung irritation; acute congestion and edema; liver damage; kidney damage; nausea; dizziness; headache; nervous system disturbances; cardiac arrhythmias; cardiac arrest; loss of balance; slurred speech; unconsciousness; and death. Ingestion can cause burning of the digestive tract, vomiting, and moderate gastrointestinal upset. Skin rash may occur. It can affect motor control after repeated exposures. Heart damage has been reported. The course of poisoning was described in three stages: first stage (2-4 days) garlicky odor on the breath, sleepiness, fatigue, sharp pain and paresthesia of the lower legs, and staggering gate; second phase (2-5 days) symptoms grow more severe; third phase spastic paresthesia of the legs, disturbance of the peripheral nervous system, and atrophy of the lower leg. ANIMAL STUDIES: Immediate effects in mice and rats included increased respiration, hyperactivity, incoordination, dyspnea, and coma. LC50 (rat) = 26,980 ppm/1H.
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: 12,000 ppm ethyl bromide caused immediate eye irritation in human volunteers and 5-minute exposure to 6500 ppm led to eye irritation, headache, and vertigo.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: Ethyl bromide was mutagenic to bacteria, but not to Drosophila melanogaster in a single study. In another single study, ethyl bromide increased the incidence of sister chromatid exchanges, but not of chromosomal aberrations in cultured mammalian cells.
- Carcinogenicity: In a two year carcinogenicity bioassay by inhalation, a dose related increase in uterine tumors was observed in female mice. A small increase in the incidence of gliomas was found in female rats exposed to the highest dose used. Evaluation: No epidemiological data relevant to the carcinogenicity of bromoethane were available. There is limited evidence in experimental animals for the carcinogenicity of bromoethane. Overall evaluation: Bromoethane is not classifiable as to its carcinogenicity to humans (Group 3).
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: Exposure of rats and rabbits by inhalation at 538 ppm ethyl bromide for 4 hr/day for 6 months resulted in disruption of hepatic function as shown by a decrease in hepatic glycogen and fat levels as well as prolonged hexobarbital sleep; hepatic cell granular dystrophy and decreased cytoplasmic RNA levels were also reported. Another study reported that exposure of rats, also at 538 ppm by inhalation, resulted in hyperplasia and hypertrophy of the pituitary gland, hypertrophy of the cortex, and increased lipid content of the adrenal gland. Severe testicular atrophy was observed in rats, but not in mice, at 1600 ppm ethyl bromide but not at lower concentrations. In female mice, but not in rats, the size and number of corpora lutea in the ovary were decreased at 1600 ppm and

at 800 ppm. Studies in rodents indicated that chronic exposure to moderately high levels of bromoethane can lead to marginal increases in lung, adrenal and brain neoplasms.
- Aspiration hazard: No data available.

Likely routes of exposure
- Its vapors are markedly irritating to the lungs on inhalation for even short periods.

Symptoms related to the physical, chemical and toxicological characteristics
- Symptoms of exposure to this compound include irritation of the skin, eyes, mucous membranes, and upper respiratory tract.

SECTION 12: Ecological information

SECTION 12: Ecological information

12.1 Toxicity
- No data available.

12.2 Persistence and degradability
- No data available.

12.3 Bioaccumulative potential
- No data available.

12.4 Mobility in soil
- No data available.

12.5 Results of PBT and vPvB assessment
- Not available.

12.6 Endocrine disrupting properties
- No data available.

12.7 Other adverse effects
- No data available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods
- Dispose of contents/container in accordance with local/regional/national/international regulations.
- Do not discharge to drains.
- Incineration by a licensed waste contractor may be appropriate where permitted.
- Contaminated packaging: Dispose of as unused product unless cleaned/decontaminated in accordance with regulations.

Waste codes
- Not available.

SECTION 14: Transport information

SECTION 14: Transport information

- UN number: Not available.
- UN proper shipping name: Not available.
- Transport hazard class(es): Not available.
- Packing group: Not available.
- Environmental hazards: Not available.
- Special precautions for user: Not available.
- Transport in bulk according to IMO instruments: Not available.

Note: Transport classification may vary by mode (ADR/RID, IMDG, IATA). Consult current regulations and shipping documentation.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Not available.

15.2 Chemical safety assessment
- No data available.

SECTION 16: Other information

SECTION 16: Other information

- Product name: Bromoethane
- CAS No.: 74-96-4
- Catalog No.: CS-T-08254
- Supplier: Clearsynth Labs Ltd., Mumbai, India
- Emergency phone: +91-22-245045900

Disclaimer
- The information provided is believed to be accurate based on available data; however, no warranty is expressed or implied. Users must determine suitability for their particular application and comply with all applicable laws and regulations.

Revision information
- Not available.

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