1,1,2,2-TETRA BROMO ETHANE
CAS NO 79-27-6

MATERIAL SAFETY DATA SHEET
SDS/MSDS

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

1.1 Product identifiers
Product name : 1,1,2,2-Tetra Bromo Ethane
CAS-No. : 79-27-6

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
           New Delhi -110002
           INDIA
Telephone : +91 11 49404040
Email : care@cdhfinechemical.com

1.4 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
Classification according to Regulation (EC) No 1272/2008
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 2), H330
Skin irritation (Category 2), H315
Eye irritation (Category 2), H319
Chronic aquatic toxicity (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram

Signal word : Danger
Hazard statement(s)
H302 : Harmful if swallowed.
H315 : Causes skin irritation.
H319 : Causes serious eye irritation.
H330 : Fatal if inhaled.
H412 : Harmful to aquatic life with long lasting effects.
Precautionary statement(s)
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P284 Wear respiratory protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

Supplemental Hazard Statements

2.3 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.

SECTION 3: Composition/information on ingredients

3.1 Substances
Synonyms : Acetylene tetrabromide
            Muthmanns liquid

Formula : C₂H₂Br₄
Molecular weight : 345.67 g/mol
CAS-No. : 79-27-6
EC-No. : 201-191-5
Index-No. : 602-016-00-9

Hazardous ingredients according to Regulation (EC) No 1272/2008
Component Classification Concentration

1,1,2,2-Tetrabromoethane
CAS-No.  79-27-6  Acute Tox. 4; Acute Tox. 2;  <= 100 %
EC-No.  201-191-5  Skin Irrit. 2; Eye Irrit. 2;
Index-No.  602-016-00-9  Aquatic Chronic 3; H302,
                        H330, H315, H319, H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of 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.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture
Carbon oxides, Hydrogen bromide gas

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 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.

6.3 Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face 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 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.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee 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).

**Control of environmental exposure**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- **a) Appearance**
  - Form: clear, liquid
  - Colour: colourless, light yellow

- **b) Odour**
  - No data available

- **c) Odour Threshold**
  - No data available

- **d) pH**
  - No data available

- **e) Melting point/freezing point**
  - Melting point/range: -1 - 1 °C - lit.

- **f) Initial boiling point and boiling range**
  - 119 °C at 20 hPa - lit.

- **g) Flash point**
  - No data available

- **h) Evaporation rate**
  - No data available

- **i) Flammability (solid, gas)**
  - No data available

- **j) Upper/lower flammability or explosive limits**
  - No data available

- **k) Vapour pressure**
  - 0.1 mmHg at 20 °C

- **l) Vapour density**
  - 11.93 - (Air = 1.0)

- **m) Relative density**
  - 2.967 g/cm³ at 25 °C

- **n) Water solubility**
  - No data available

- **o) Partition coefficient: n-octanol/water**
  - log Pow: 1.98

- **p) Auto-ignition temperature**
  - No data available

- **q) Decomposition temperature**
  - No data available

- **r) Viscosity**
  - No data available

- **s) Explosive properties**
  - No data available

- **t) Oxidizing properties**
  - No data available

9.2 Other safety information

- Relative vapour density 11.93 - (Air = 1.0)

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
No data available
10.5 **Incompatible materials**
Strong bases, Strong oxidizing agents, Chemically active metals, Aluminum, Magnesium, Zinc

10.6 **Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen bromide gas
Other decomposition products - No data available
In the event of fire: see section 5

**SECTION 11: Toxicological information**

11.1 **Information on toxicological effects**

**Acute toxicity**
LD50 Oral - Rat - 1,200 mg/kg(1,1,2,2-Tetabromoethane)
LC50 Inhalation - Rat - 4 h - 549 mg/m3(1,1,2,2-Tetabromoethane)
LD50 Dermal - Rat - 5,250 mg/kg(1,1,2,2-Tetabromoethane)

**Skin corrosion/irritation**
Skin - Rabbit(1,1,2,2-Tetabromoethane)
Result: Skin irritation - 24 h

**Serious eye damage/eye irritation**
Eyes - Rabbit(1,1,2,2-Tetabromoethane)
Result: Mild eye irritation

**Respiratory or skin sensitisation**
No data available(1,1,2,2-Tetabromoethane)

**Germ cell mutagenicity**
Hamster(1,1,2,2-Tetabromoethane)
ovary
Sister chromatid exchange

**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.

**Reproductive toxicity**
No data available(1,1,2,2-Tetabromoethane)

**Specific target organ toxicity - single exposure**
No data available(1,1,2,2-Tetabromoethane)

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available(1,1,2,2-Tetabromoethane)

**Additional Information**
RTECS: KI8225000

Nausea, Dizziness, Headache, Anorexia., Cholestatic jaundice., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(1,1,2,2-Tetabromoethane)

**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(1,1,2,2-Tetabromoethane)
12.5 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.

12.6 Other adverse effects
Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 2504 IMDG: 2504 IATA: 2504

14.2 UN proper shipping name
ADR/RID: TETRABROMOETHANE IMDG: TETRABROMOETHANE IATA: Tetrabromoethane

14.3 Transport hazard class(es)
ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

14.4 Packaging group
ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: yes IATA: no

14.6 Special precautions for user
No data available

SECTION 15: Regulatory information

15.1 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.

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H412 Harmful to aquatic life with long lasting effects.

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.