



UPDATEED BY: Avima (Pty) Ltd
DATE ISSUED: 15 May 2012
UPDATED: 20/1/2022

MATERIAL SAFETY DATA SHEET

EDB TECHNICAL

COMPANY DETAILS:

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Chamdor
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1. PRODUCT IDENTIFICATION:

Product Name: 1,2-Dibromoethane
CAS: 106-93-4
TSCA: TSCA 8(b) inventory: 1,2-Dibromoethane
Synonym: Ethylene Dibromide
Chemical Formula: C₂H₄Br₂

2. COMPOSITION:

Name CAS # % by Weight: {1,2-}Dibromoethane 106-93-4 100
Toxicological Data on Ingredients: 1,2-Dibromoethane:
ORAL (LD50): Acute: 108 mg/kg [Rat].
DERMAL (LD50): Acute: 300 mg/kg [Rabbit].
VAPOR (LC50): Acute: 7150 ppm 4 hour(s) [Rat].



Toxic if swallowed.
Toxic in contact with skin.
Toxic if inhaled.
May cause cancer.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.



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3. PHYSICAL AND CHEMICAL CHARACTERISTICS:

Physical state and appearance:	Liquid.
Odor:	Chloroform. (Strong)
Taste:	Not available.
Molecular Weight:	187.87 g/mole
Color:	Clear Colorless.
pH (1% soln/water):	Not available.
Boiling Point:	131.4°C (268.5°F)
Melting Point:	9.3°C (48.7°F)
Critical Temperature:	Not available.
Specific Gravity:	2.18 (Water = 1)
Vapor Pressure:	11 mm of Hg (@ 20°C)
Vapor Density:	6.48 (Air = 1)
Density:	2.178
Volatility:	Not available.
Odor Threshold:	10 ppm
Water/Oil Dist. Coeff.:	Not available.
Ionicity (in Water):	Not available.
Dispersion Properties:	Not available.
Solubility:	Very slightly soluble in cold water.
Flash point:	Not flammable

4. FIRE AND EXPLOSION HAZARD:

Extinguishing media:

Suitable extinguishing agents: Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture: If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Hydrogen bromide (HBr)

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

5. REACTIVITY DATA:

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Highly reactive with reducing agents.

Corrosivity:

Extremely corrosive in presence of aluminum. Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: No.

6. HEALTH HAZARD DATA:

Potential Acute Health Effects:

Very hazardous in case of eye contact (irritant), of ingestion. Hazardous in case of skin contact (irritant, permeator), of inhalation. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching.



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Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Classified + (PROVEN) by OSHA. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC. **MUTAGENIC EFFECTS:** Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: PROVEN The substance is toxic to kidneys, the reproductive system, liver, upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

7. EXPOSURE CONTROLS / PERSONAL PROTECTION:

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 20 CEIL: 30 (ppm) TWA: 155 CEIL: 230 (mg/m³). Consult local authorities for acceptable exposure limits.

8. FIRST AID MEASURES:

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:

Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.



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9. ACCIDENTAL RELEASE MEASURES:

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:

Absorb with an inert material and put the spilled material in an appropriate waste disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

10. HANDLING AND STORAGE:

Precautions:

Keep locked up Do not ingest. Do not breathe gas/fumes/ vapour/spray. In case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes Keep away from incompatibles such as reducing agents.

Storage:

Keep container tightly closed. Keep in a cool, well-ventilated place. Highly toxic or infectious materials should be stored in a separate locked safety storage cabinet or room.

11. DISPOSAL CONSIDERATION:

Evacuate danger area! Consult an expert! Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in dry sand or inert absorbent and remove to safe place. Do NOT let this chemical enter the environment (extra personal protection: complete protective clothing including self-contained breathing apparatus).

12. TRANSPORTATION DATA:

UN NUMBER:	1605
DOT, IMDG, IATA	
UN PROPER SHIPPING NAME:	Ethylene dibromide
IMDG, IATA:	ETHYLENE DIBROMIDE
HAZARD CLASS:	6.1 (TOXIC SUBSTANCE)
LABEL:	1
PACKING GROUP:	1
ENVIRONMENTAL HAZARD:	Environmentally hazardous substance, liquid;, Marine Pollutant
ADR / RID (EU ONLY):	Class 6.1
	FORBIDDEN FOR AIR TRANSPORT

13. ENVIRONMENTAL DATA:

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.



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14. TOXICOLOGICAL INFORMATION:

Routes of Entry: Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral

toxicity (LD50): 108 mg/kg [Rat]. Acute dermal toxicity (LD50): 300 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 7150

ppm 4 hour(s) [Rat].

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: Classified + (PROVEN) by OSHA. Classified A2 (Suspected for human.) by ACGIH, 2A

(Probable for human.) by IARC. DEVELOPMENTAL TOXICITY: PROVEN The substance is toxic to kidneys, the reproductive system, liver, upper respiratory tract.

Other Toxic Effects on Humans:

Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant, permeator), of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Animal: embryotoxic, induces sterility; decrease of sperm count.

Special Remarks on other Toxic Effects on Humans: Not available.

15. STORAGE CONDITIONS:

Separated from strong oxidants, strong bases, powdered metals, food and feedstuffs: see Chemical Dangers. Dry. Keep in the dark. Ventilation along the floor.

16. OTHER INFORMATION:

Do not transport with food and feedstuffs.

T symbol

R: 45-23/24/25-36/37/38

S: 53-44

UN Hazard Class: 6.1

UN Packing Group: I

IMO: marine pollutant.