



TCI AMERICA

SAFETY DATA SHEET

Revision number: 1
Revision date: 07/06/2018

1. IDENTIFICATION

Product name: 1,1,2,2-Tetrabromoethane
Product code: T0034

Product use: For laboratory research purposes.
Restrictions on use: Not for drug or household use.

Company:
TCI America
9211 N. Harborside Street
Portland, OR 97203 U.S.A.
Telephone:
+1-800-423-8616 / +1-503-283-1681
Fax:
+1-888-520-1075 / +1-503-283-1987
e-mail:
sales-US@TCIchemicals.com
www.TCIchemicals.com

Emergency telephone number:
Chemical Emergencies:
TCI America (8:00am - 5:00pm) PST
+1-503-286-7624
Transportation Emergencies:
Chemtrec 24-Hour
+1-800-424-9300 (U.S.A.)
+1-703-527-3887 (International)
Responsible department:
TCI America
Environmental Health Safety and Security
+1- 503-286-7624

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Acute Toxicity - Oral [Category 4]
WHMIS 2015: Acute Toxicity - Inhalation [Category 1]
Skin Corrosion/Irritation [Category 2]
Eye Damage/Irritation [Category 2A]
Specific Target Organ Toxicity (Single Exposure) [Category 2]
Specific Target Organ Toxicity (Single Exposure) [Category 3]
Specific Target Organ Toxicity (Repeated Exposure) [Category 1]
Specific Target Organ Toxicity (Repeated Exposure) [Category 2]
Aquatic Hazard (Acute) [Category 3]
Aquatic Hazard (Long-Term) [Category 3]

Signal word: Danger!

Hazard Statement(s): Harmful if swallowed
Fatal if inhaled
Causes skin irritation
Causes serious eye irritation
Harmful to aquatic life
Harmful to aquatic life with long lasting effects
May cause damage to organs: Central Nervous System
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure: Liver Lung
May cause damage to organs through prolonged or repeated exposure: Thyroid Gland

Pictogram(s) or Symbol(s):



Precautionary Statement(s):
[Prevention]

[Response]

[Storage]
[Disposal]

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 respiratory protection. Wear protective gloves, eye protection.
If swallowed: Call a poison center or doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty of soap and 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. Immediately call a poison center or doctor. 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: Call a poison center or doctor.
Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40

CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

Hazards not otherwise classified: None.
[HNOC]

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance
Components: 1,1,2,2-Tetrabromoethane
Percent: >98.0%(GC)
CAS RN: 79-27-6
Molecular Weight: 345.65
Chemical Formula: C₂H₂Br₄
Synonyms: Acetylene Tetrabromide , TBE

4. FIRST-AID MEASURES

Description of first aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
Skin contact: Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician.
Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Call a POISON CENTER or doctor/physician.
Ingestion: Call a POISON CENTER or doctor/physician. Rinse mouth.

Symptoms/effects:

Acute: Redness.
Delayed: May have effects on the respiratory tract.

Indication of any immediate medical attention:

Not available.

Notes to physician:

No data available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, foam, water spray, carbon dioxide.
Specific hazards arising from the chemical: Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.
Hazardous combustion products: These products include: Carbon oxides Halogenated compounds
Other specific hazards: Closed containers may explode from heat of a fire.
Advice for firefighters: Wear self-contained breathing apparatus if possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. 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: Prevent product from entering drains.
Methods and materials for containment and cleaning up: Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). 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.

7. HANDLING AND STORAGE

Precautions for safe handling: Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. 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. Avoid contact with skin, eyes and clothing.
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. Light-sensitive
Packaging material: Comply with laws.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure limits:**

ACGIH TLV(TWA): 0.1 ppm (IFV)
 OSHA PEL(TWA): 1 ppm

Appropriate engineering controls:

Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust. Also install safety shower and eye bath.

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 - Slightly pale yellow

Odour:

Pungent

Odor threshold:

No data available

Odour threshold:

No data available

Melting point/freezing point:

0°C (32°F)

pH:

No data available

Boiling point/range:

243°C (469°F)

Vapour pressure:

No data available.

Decomposition temperature:

No data available

Vapour density:

11.9

Relative density:

2.97

Dynamic Viscosity:

No data available

Kinematic viscosity:

No data available

Log Pow:

No data available

Evaporation rate(Butyl Acetate=1):

No data available

Flash point:

No data available

Autoignition temperature:

335°C (635°F)

Flammability(solid, gas):

No data available

Flammability or explosive limits:**Lower:**

No data available

Upper:

No data available

Solubility(ies):**[Water]**

Insoluble (678mg/L, 25°C)

[Other solvents]**Miscible:**

Ether, Chloroform, Ethanol, Acetic acid, Aniline

Soluble:

Benzene, Acetone

Slightly soluble:

Carbon tetrachloride

10. STABILITY AND REACTIVITY**Reactivity:**

No data available

Chemical stability:

Stable under proper conditions.

Possibility of hazardous reactions:

No special reactivity has been reported.

Incompatible materials:

Oxidizing agents, Strong bases, Metals

Hazardous decomposition products:

Carbon dioxide, Carbon monoxide, Hydrogen bromide

11. TOXICOLOGICAL INFORMATION**RTECS Number:** KI8225000**Acute Toxicity:**ihl-rat LC50:549 mg/m³/4H
orl-rat LD50:1200 mg/kgorl-mus LD50:269 mg/kg
skn-rat LD50:5250 mg/kg**Skin corrosion/irritation:**

skn-rbt 500 mg/24H MOD

Serious eye damage/irritation:

eye-rbt 100 mg MLD

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:dnr-esc 29640 ug/disc
sce-ham-ovr 158 mg/L

mmo-sat 10 ug/plate (+/-S9)

Carcinogenicity:

skn-mus TDLo:130 g/kg/74W-I

IARC: No data available**NTP:** No data available**OSHA:** No data available**Reproductive toxicity:**

No data available

Target organ(s):

May cause damage to organs: Central Nervous System

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure: Liver Lung

May cause damage to organs through prolonged or repeated exposure: Thyroid Gland

12. ECOLOGICAL INFORMATION**Ecotoxicity:****Fish:** 48h LC50:19 mg/L (Oryzias latipes)**Crustacea:** No data available**Algae:** No data available**Persistence / degradability:**

29% (by BOD)

Bioaccumulative potential(BCF):

1.5 - 7.0 (conc. 10 ppb) , 2.9 - 8.2 (conc. 1 ppb)

Mobility in soil**Log Pow:** 280**Soil adsorption (Koc):** 120**Henry's Law (PaM³/mol):** 1.3**13. DISPOSAL CONSIDERATIONS****Disposal of product:**

Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.

Disposal of container:

Dispose of as unused product. Do not re-use empty containers.

Other considerations:

Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION**DOT (US)**

UN number: UN2504	Proper Shipping Name: Tetrabromoethane	Class or Division: 6.1 Toxic material.	Packing Group: III
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IATA

UN number: UN2504	Proper Shipping Name: Tetrabromoethane	Class or Division: 6.1 Toxic material.	Packing Group: III
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IMDG

UN number: UN 2504	Proper Shipping Name: Tetrabromoethane	Class or Division: 6.1 Toxic material.	Packing Group: III
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Marine Pollutant:	Marine Pollutant
EmS number:	F-A, S-A

15. REGULATORY INFORMATION**Toxic Substance Control Act (TSCA 8b.):**

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations**CERCLA Hazardous substance and Reportable Quantity:**

SARA 313:	Not Listed
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SARA 302:	Not Listed
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State Regulations**State Right-to-Know**

Massachusetts	Listed
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New Jersey	Listed
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Pennsylvania	Listed
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California Proposition 65:	Not Listed
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Other Information**NFPA Rating:**

Health:	2
Flammability:	0
Instability:	0

HMIS Classification:

Health:	2
Flammability:	0
Physical:	0

International Inventories

Canada: DSL	On DSL
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EC-No:	201-191-5
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16. OTHER INFORMATION

Revision date: 07/06/2018

Revision number: 1

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.