



Safety Data Sheet

According to Regulation (EC) 1907/2006



1735 1,1,2,2-Tetrabromoethane

Identification of the substance/preparation and of the company or firm

1.1 Identification of the substance or preparation

Name:

1,1,2,2-Tetrabromoethane

1.2 Synonym:

Acetylene Tetrabromide, Muthmann's liquid, TBE

1.3 Use of the substance/preparation:

For laboratory utilisation, analysis, research and fine chemistry.

1.4 Identification of the company or firm:

PANREAC QUIMICA S.L.U.

C/Garraf 2

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Emergencies:

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

Identification of dangers

Classification of the substance or the mixture.

Classification Regulation (CE) n° 1272/2008.

Acute Tox. 2

Eye Irrit. 2

Aquatic Chronic 3

Hazard Pictograms



Signal word

Danger

Hazard statements

H330 Fatal if inhaled.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash...thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

Classification (67/548/CEE or 1999/45/CE).

T+ Very	R52/53
toxic	R36
	R26

For the full text of the R-phrases mentioned in this section, see section 16.

Component Composition/Information

Name: 1,1,2,2-Tetrabromoethane

Formula: Br₂CHCHBr₂ M.= 345,67 CAS [79-27-6]

EC number (EINECS): 201-191-5

EC index number: 602-016-00-9

First aid

4.1 General indications:

Never provide drink or induce vomiting in the event of loss of consciousness.

4.2 Inhaling:

Take the person out into the fresh air. In the event of suffocation, proceed immediately to provide artificial respiration. Seek immediate medical assistance.

4.3 Contact with the skin:

Wash with plenty of water. Remove contaminated clothing.

4.4 Eyes:

Wash with plenty of water (for at least 15 minutes), keeping eyelids open. In the event of irritation, seek medical assistance.

4.5 Swallowing:

Drink large amounts of water. Induce vomiting. Administer a solution of medical-usage active charcoal. Do not drink milk. Do not administer castor oil. Seek immediate medical assistance.

Fire-fighting means

5.1 Suitable fire-extinguishing means:

Foam. Dry powder.

5.2 Fire-fighting means which must NOT be used:

5.3 Special risks:

Combustible. Keep away from sources of ignition. In the event of fire, toxic fumes may form:

5.4 Protective equipment:

Measures to be taken in the event of accidental spillage

6.1 Individual precautions:

Do not inhale the fumes.

6.2 Precautions for care of the environment:

Do not allow it to enter the drainage system. Avoid pollution of the soil, water supplies and drains.

6.3 Methods for collection/cleaning:

Collect up with absorbent materials (Panreac General Absorbent, Kieselguhr, etc.) or, if none available, dry sand or earth, and deposit in waste containers for subsequent elimination in accordance with current legislation.

Handling and storage

7.1 Handling:

No special indications.

7.2 Storage:

Well sealed containers. In well ventilated premises. Restricted access, only authorized to technicians. Atmospheric temperature.

Staff exposure/protection controls

8.1 Technical protective measures:

Ensure good ventilation and renewal of the air in the premises.

8.2 Exposure limit control:

TLV-TWA: 1 ppm ó 14 mg/m³

VLA-ED: 14 mg/m³

8.3 Respiratory protection:

In the event of fumes forming/aerosols, use suitable respiratory protection. Filter A. Filter P3.

8.4 Hand protection:

Use suitable gloves

8.5 Eye protection:

Use suitable goggles.

8.6 Individual hygiene measures:

Remove contaminated clothing. Wash hands before breaks and when the job is done. Use suitable work clothing.

8.7 Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

Physical and chemical properties

Appearance: liquid

Colour: Yellowish

Granulometry:

Odour:

pH:

Melting point/freezing point: 0 °C

Initial boiling point and boiling range: 243,5 °C

Flash point: NO

Flammability (solid, gas):
Upper/lower flammability or explosive limits:
Vapour pressure: 0,13 hPa (20 °C)
Vapour density:
Relative density: (20/4) 2,9656
Solubility: Insoluble in water
Partition coefficient: n-octanol/water:
Auto-ignition temperature: 335 °C
Decomposition temperature: above 243 °C
Viscosity:

Stability and reactivity

10.1 Conditions which should be avoided:

10.2 Matter which should be avoided:

Metals (powder). Alkaline metals. Alkali-earth metals. Amides. Rubber.

10.3 Hazardous decomposition products:

HBr.

10.4 Complementary information:

Light-sensitive. Heat sensitive.

Toxicological information

- **Acute toxicity:**

LD50 oral rat : 1.200 mg/kg

LD50 skn rat : 5.250 mg/kg

LC50 inh rat : 549 mg/m³ 4h

LD50 ipr mus : 443 mg/kg

- **Dangerous effects for health:**

If fumes inhaled: Irritations to the mucosae coughing breathing difficulties Upon contact with the skin: irritations Risk of cutaneous absorption. Through contact with the eyes: Irritations to the mucosae If swallowed in large quantities: Irritations of the mucosae in the mouth, throat, oesophagus and intestinal tract. If it is absorbed in large quantities: narcosis hepatic problems kidney problems Carcinogenic in animal testing. Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

Environmental information

12.1 Mobility:

12.2 Ecotoxicity:

12.2.1 - EC50 test (mg/l):

Water organisms > 10 mg/l

Classification:

Extr. toxic

Protozoa (E. sulcatum) 116 mg/l

Classification:

Highly toxic

Protozoa (P. caudatum) 75 mg/l

Classification:

Extr. toxic

Br is deadly for:

Crustaceans (Daphnia magna) 10 mg/l

Classification:

Extr. toxic

Fish (C. auratus) 20 mg/l

Classification:

Extr. toxic

12.2.2 - Receptor medium:

Risk for the water environment

High

Risk for the land environment

High

12.2.3 - Observations:

Highly ecotoxic in any environment.

12.3 Degradability:

12.3.1 - Test:

12.3.2 - Biotic degradation classification:

BOD5/COD

Biodegradability

12.3.3 - Abiotic degradation depending on pH:

12.3.4 - Observations:

Data not available.

12.4 Accumulation:

12.4.1 - Test:

12.4.2 - Bioaccumulation:

Risk

12.4.3 - Observations:

Data not available.

12.5 Other possible effects on the environment:

High pollutant product.

Considerations regarding elimination

13.1 Substance or preparation:

In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.

In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.

2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

13.2 Contaminated containers:

Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

Information concerning transport

Overland (ADR):

Technical name: TETRABROMOETHANE

UN 2504 Class: 6.1 CONTAM. MAR Packaging group: III (E)

By sea (IMDG):

Technical name: TETRABROMOETHANE

UN 2504 Class: 6.1 CONTAM. MAR Packaging group: III

By air (ICAI-IATA):

Technical name: Tetrabromoethane

UN 2504 Class: 6.1 CONTAM. MAR Packaging group: III

Packaging instructions: CAO 618 PAX 611

Regulatory information

Other information

Other precautionary statements

P284 Wear respiratory protection.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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 or doctor/physician.

P320 Specific treatment is urgent (see on this label).

P337+P313 If eye irritation persists: Get medical advice/attention.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Labelling (65/548/CEE or 1999/45/CE)

R-phrase(s):	R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R36 Irritating to eyes. R26 Very toxic by inhalation.
S-phrase(s):	S61 Avoid release to the environment. Refer to special instructions/safety data sheets. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S27 Take off immediately all contaminated clothing. S24 Avoid contact with skin.

The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.

In respect of the previous review, changes have been made to the following sections: 2, 3, 15

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