

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Phosphorus tribromide

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008

Skin corrosion (Category 1B)

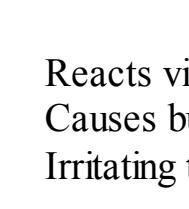
Specific target organ toxicity - single exposure (Category 3)

According to European Directive 67/548/EEC as amended.

Causes burns. Reacts violently with water. Irritating to respiratory system.

Label elements

Pictogram



Signal word : Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

EUH014 Reacts violently with water.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P280 Wear protective gloves/ protective clothing/ eye protection/ face 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 or doctor/ physician.

Hazard symbol(s)

C Corrosive

R-phrase(s)

R14 Reacts violently with water.

R34 Causes burns.

R37 Irritating to respiratory system.

S-phrase(s)

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Phosphorus(III) bromide

Formula : Br₃P

Molecular Weight : 270,69 g/mol

| CAS-No. | EC-No. | Classification | Concentration |
|-----------|-----------|--|---------------|
| 7789-60-8 | 232-178-2 | - Skin Corr. 1B; STOT SE 3; H314, H335, EUH014 C, R14 - R34 - R37 | - |

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

4. 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

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. 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

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO₂) Dry powder

Extinguishing media which shall not be used for safety reasons

Water

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Do not flush with water. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Normal measures for preventive fire protection.

Conditions for safe storage

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. Store in cool place.

Never allow product to get in contact with water during storage.

Handle and store under inert gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of 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).

Hand 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eye protection

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals. Flame retardant protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : cloudy, liquid

Safety data

pH : no data available

Melting point : -41,5 °C - lit.

Boiling point : 175 °C - lit.

Flash point : not applicable

Ignition temperature : no data available

Lower explosion limit : no data available

Upper explosion limit : no data available

Vapour pressure : 13 hPa at 48 °C

Density : 2,88 g/cm³ at 20 °C

Water solubility : no data available

Partition coefficient: log Pow: 2,28

n-octanol/water

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Reacts violently with water.

Conditions to avoid

Exposure to moisture.

Materials to avoid

Strong bases, Sodium/sodium oxides, Potassium, Strong oxidizing agents, Alcohols, acids, Reacts violently with water.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Oxides of phosphorus, Hydrogen bromide gas

11. TOXICOLOGICAL INFORMATION

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than 0,1% is identified as

probable, possible or confirmed human carcinogen by IARC or equal to 0,1% is identified as

probable, possible or confirmed animal carcinogen by IARC.

WHO: No data available

EU: No data available

Other: No data available

OSHA: No data available

NIOSH: No data available

MSDS: No data available

NIH: No data available

ICR: No data available