

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

Product name : Diborane-d6

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008

Flammable gases (Category 1)

Gases under pressure (Compressed gas)

Acute toxicity, Oral (Category 3)

Acute toxicity, Inhalation (Category 3)

Acute toxicity, Dermal (Category 3)

Skin irritation (Category 2)

Eye irritation (Category 2)

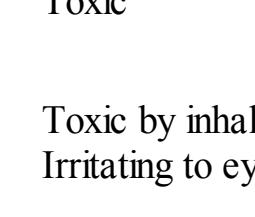
Specific target organ toxicity - single exposure (Category 3)

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

Toxic by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.

Label elements

Pictogram



Signal word Danger

Hazard statement(s)

H220

Extremely flammable gas.

H280

Contains gas under pressure; may explode if heated.

H301

Toxic if swallowed.

H311

Toxic in contact with skin.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H331

Toxic if inhaled.

H335

May cause respiratory irritation.

Precautionary statement(s)

P210

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261

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

P280

Wear protective gloves/ protective clothing.

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P311

Call a POISON CENTER or doctor/ physician.

Hazard symbol(s)

T

Toxic

R-phrase(s)

R23/24/25

Toxic by inhalation, in contact with skin and if swallowed.

R36/37/38

Irritating to eyes, respiratory system and skin.

S-phrase(s)

S9

Keep container in a well-ventilated place.

S16

Keep away from sources of ignition - No smoking.

S36/37/39

Wear suitable protective clothing, gloves and eye/face protection.

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

Formula : B2D6 D6B2

Molecular Weight : 33,71 g/mol/33,71 g/mol

CAS-No.

EC-No.

Classification

Concentration

Diborane-d6

20396-66-1

Flam. Gas 1; Press. Gas ;

Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H220,

H280, H301, H311, H315,

H319, H331, H335

T, R23/24/25 - R36/37/38

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

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

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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Clean up promptly by sweeping or vacuum.

7. HANDLING AND STORAGE

Precautions for safe handling

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

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Store under inert gas. hygroscopic

Contents under pressure.

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 AXBEK (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

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 and body protection

Complete suit protecting against chemicals, Flame retardant antistatic 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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form Compressed gas

Odour Stench.

Safety data

pH no data available

Melting point no data available

Boiling point -92,5 °C - lit.

Flash point no data available

Ignition temperature no data available

Lower explosion limit 0,9 % (V) at 1013 hPa

Upper explosion limit 98,0 % (V) at 1013 hPa

Vapour pressure 39.400,0 hPa at 15 °C

Water solubility no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable Stable under recommended storage conditions.

Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

Materials to avoid

Acids, Oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Borane/boron oxides

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

Carcinogenicity

no data available

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

IARC: no probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity no data available

Specific target organ toxicity - repeated exposure no data available

Aspiration hazard

no data available

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin Toxic if absorbed through skin. Causes skin irritation.

Eyes Causes serious eye irritation.

Symptoms and effects of exposure

Symptoms may be delayed. Nausea, Dizziness, Headache, Shortness of breath, Incoordination. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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