

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

1.1 Product identifiers

Product name : Methylsilane

CAS-No. : 992-94-9

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flammable gases (Category 1)

Gases under pressure (Liquefied gas)

Acute toxicity, Inhalation (Category 4)

Acute toxicity, Dermal (Category 4)

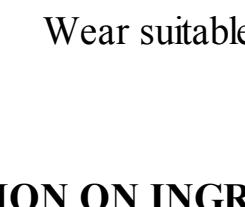
Classification according to EU Directives 67/548/EEC or 1999/45/EC

Extremely flammable. Reacts violently with water. Harmful by inhalation and in contact with skin.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word : Danger

Hazard statement(s)

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 Wear protective gloves/ protective clothing.

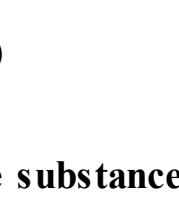
P410 + P403 Protect from sunlight. Store in a well-ventilated place.

Supplemental Hazard information (EU)

EUH014 Reacts violently with water.

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

Hazard symbol(s)



R-phrase(s)

R12 Extremely flammable.

R14 Reacts violently with water.

R20/21 Harmful by inhalation and in contact with skin.

S-phrase(s)

S16 Keep away from sources of ignition - No smoking.

S24 Avoid contact with skin.

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

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : CH₃Si

Molecular Weight : 46,14 g/mol

Concentration

Methylsilane

CAS-No. 992-94-9

EC-No. 213-598-5

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4. FIRST AID MEASURES

4.1 Description of 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. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Nausea, Dizziness, Headache, Cough, chest pain, Difficulty in breathing

4.3 Indication of immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Dry powder Carbon dioxide (CO₂)

5.2 Special hazards arising from the substance or mixture

Carbon oxides, silicon oxides

5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Do not flush with water.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

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

Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

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

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

Contents under pressure.

7.3 Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

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

Personal protective equipment

Eye/face 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 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.

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.

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).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: liquid

b) Odour no data available

c) Odour Threshold no data available

d) pH no data available

e) Melting/freezing point Melting point/range: -157 °C - lit.

f) Initial boiling point and boiling range -57 °C - lit.

g) Flash point no data available

h) Evaporation rate no data available

i) Flammability (solid, gas) no data available

j) Upper/lower flammability or explosive limits Upper explosion limit: 88,9 % (V)
Lower explosion limit: 1,3 % (V)

k) Vapour pressure no data available

l) Vapour density 1,59 - (Air = 1,0)

m) Relative density no data available

n) Water solubility no data available

o) Partition coefficient: n-octanol/water no data available

p) Autoignition temperature no data available

q) Decomposition no data available

r) Viscosity no data available

s) Explosive properties no data available

t) Oxidizing properties no data available

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

Reacts violently with water.

10.4 Conditions to avoid

Heat.

Exposure to moisture.

10.5 Incompatible materials

Oxidizing agents, Halogens, Bases

10.6 Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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

no data available

11.2 Acute toxicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

WHO: No component of this product present at levels greater than or equal to 0.1% is identified as probably carcinogenic to humans.

EU: No component of this product present at levels greater than or equal to 0.1% is identified as probably carcinogenic to humans.

US: No component of this product present at levels greater than or equal to 0.1% is identified as probably carcinogenic to humans.

Canada: No component of this product present at levels greater than or equal to 0.1% is identified as probably carcinogenic to humans.

Other: No component of this product present at levels greater than or equal to 0.1% is identified as probably carcinogenic to humans.