

# Material Safety Data Sheet

Revision Date: 25.08.2006

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6125-23-02

## 1. Chemical product and company identification

**Product name:**

Silane A (Activator Component)

**Supplier:**

DMG, Chemisch-Pharmazeutische Fabrik GmbH  
D 22531 Hamburg, telephone : (+49) 040 - 84 00 60

## 2. Composition / Information on ingredients

**Common chemical name / Generic name:**

Aqueous ethanolic solution  
Contains ethanol, CAS - No.: 64-17-5

## 3. Hazards Identification

Highly flammable.

**In case of inhalation:** High concentrations of vapour may irritate respiratory system, and may cause nausea and dimming of consciousness.

**In case of skin contact:** Degreases skin. Corrosive after evaporation of solvent.

**In case of eye contact :** Irritating to eyes.

**In case of ingestion:** Acts on mucous membrane and central nervous system.

## 4. First-aid measures

**In case of inhalation:** Take patient to open air. Let sit down calmly.

**In case of skin contact:** Wash with soap and water.

**In case of eye contact :** Immediately rinse with plenty of water, consult a physician.

**In case of ingestion:** Seek medical advice.

## 5. Fire-fighting measures

**Extinguishing media:** Powder, sand, foam, carbon dioxide, water spray.

**Not suitable extinguishing media:** direct jet of water.

## 6. Accidental release measures

**Personal precautions:** Remove sources of ignition. Local exhaust.

**Environmental precautions:** Do not empty into drains.

**Methods for cleaning up:** Take up mechanically, with inert fluid-binding material.

## 7. Handling and storage

**Handling:**

**Technical measures:** Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Keep container in a well-ventilated place.

**Safe handling advice:** Wear suitable gloves (Butylrubber 0.7 mm). Avoid contact with eyes.

**Storage:**

**Technical measures:** Keep container in a well-ventilated place.

**Storage conditions:** Keep container tightly closed. Keep in a cool place.

**Recommended packaging material:** Container of glass or metal.

**not suitable packaging material:** Vapour-permeable plastics.

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## 8. Exposure controls/personal protection

**Engineering measures:** Use only in well-ventilated areas.

**Limit values:** MAK-threshold 1.000 ppm.

**Personal protective equipment:**

**respiratory protection:** Do not breathe vapour. Filtermask type A (if TLV is exceeded).

**Hand and skin protection:** Butylrubber gloves (0.7 mm).

**eye protection:** Goggles.

**Hygiene measures:** When using do not eat or drink.

## 9. Physical und chemical properties

**Appearance:** Colourless liquid

**Odour:** Characteristic

**pH-value:** ca. 5

**Changes in physical state:**

**Melting temperature:** ca. - 120 °C

**Boiling temperature:** ca. 80 °C

**Flashpoint:** > 12 °C

**Ignition temperature:** > 425 °C

**Explosion properties:** lL: 3,4 Vol %; uL: 15 Vol %

**Vapour pressure:** ca. 60 mbar

**rel. vapour density:** > 1

**Density:** ca. 0.8 g/cm<sup>3</sup>

**Solubility in water:** miscible

## 10. Stability and reactivity

**Thermal decomposition:** at ca. 80 °C, (boiling point)

**Hazardous reactions:** None, if handled and stored according to directions.

**Conditions to avoid:** Heat.

**Materials to avoid:** Oxidizing agents, peroxides, acids, acid derivatives

**Hazardous decomposition products:** None.

## 11. Toxicological information

**Acute oral toxicity:** LD<sub>50</sub> (rat) > 7060 mg/kg (ethanol)

**Irritation of skin :** Irritating on prolonged exposure.

**Irritation of eye:** Irritating.

**Specific effects:** None.

## 12. Ecological information

**Mobility:** No data available.

**Persistence und degradability:** Ethanol easily degradable.

**Ecotoxicity:** Fish-toxicity LC<sub>50</sub> > 8140 mg/l / 48 h (*Leuciscus idus*), (Ethanol)

## 13. Disposal considerations

**Waste from residues:** Dispose to an authorised waste collection point. Use proper landfill disposal or incineration in accordance with local, state and federal regulations.

**Contaminated packaging:** Rinse, ventilate thoroughly.

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## 14. Transport information

### Regulations for land (road/railroad):

GGVSE: Class 3, II

ADR: Class 3, II

RID: Class 3, II

### Regulations for sea:

IMDG/GGVSee-Code: 3 Class: II

EmS: F-E, S-D

### Regulations for air:

ICAO/IATA-DGR: Class 3, II

**UN-number:** 1170

### Additional information:

Proper shipping name: Ethyl alcohol, solution

## 15. Regulatory information

### Labelling according to international regulations:

#### Hazard symbols:

F



Highly flammable

#### R-Phrases:

R11 Highly flammable.

#### S-Phrases:

S7 Keep container tightly closed.

S16 Keep away from sources of ignition - No smoking.

## 16. Other information

None.

The data given here is based on current knowledge and experience. The data does not signify any warranty with regard to the product's properties.

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## 1. Chemical product and company identification

**Product name:**

Silane B (Adhesive Silane)

**Supplier:**

DMG, Chemisch-Pharmazeutische Fabrik GmbH  
D 22531 Hamburg, telephone : (+49) 040 - 84 00 60

## 2. Composition / Information on ingredients

**Common chemical name / Generic name:**

Organofunctional silane.

## 3. Hazards Identification

None, if handled according to directions.  
No labelling of hazardous ingredients required.

## 4. First-aid measures

**In case of inhalation:** In case of prolonged exposure take patient to open air.  
If feeling unwell consult a physician.  
**In case of skin contact:** Wash with soap and water. Take off contaminated clothing.  
**In case of eye contact :** Rinse with plenty of water, consult a physician.  
**In case of ingestion:** Immediately seek medical advice.

## 5. Fire-fighting measures

**Extinguishing media:** Powder, sand, foam, carbon dioxide, water spray.  
**Not suitable extinguishing media:** Direct jet of water.

## 6. Accidental release measures

**Personal precautions:** Wear suitable protective clothing. Use only in well-ventilated areas.  
**Environmental precautions:** Avoid pollution of water and sewage.  
**Methods for cleaning up:** Take up mechanically, with inert fluid-binding material.

## 7. Handling and storage

**Handling:**

**Technical measures:** Keep container in a well-ventilated place.  
**Safe handling advice:** Wear suitable gloves. Avoid contact with eyes.

**Storage:**

**Technical measures:** No special precautions necessary.  
**Storage conditions:** Keep container tightly closed and dry in a cool place.  
**Incompatible products:** Keep off moisture.  
**Recommended packaging material:** Container of glass or metal or solvent-stable plastics.

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## 8. Exposure controls/personal protection

**Engineering measures:** Use only in well-ventilated areas.

**Personal protective equipment:**

**Respiratory protection:** Do not breathe vapour/spray.

**Hand and skin protection:** Butylrubber gloves (0.5 mm).

**Eye protection:** Goggles.

**Hygiene measures:** When using do not eat or drink.

## 9. Physical und chemical properties

**Appearance:** Clear, slightly yellowish liquid

**Odour:** weak

**pH-value:** not determined

**Changes in physical state:**

**Boiling temperature:** ca. 250 °C

**Flashpoint:** > 110 °C

**Explosion properties:** not determined

**Rel. vapour density:** > 1

**Density:** 1.04 g/cm<sup>3</sup>

**Solubility in water:** immiscible. Decomposition by hydrolysis.

## 10. Stability and reactivity

**Thermal decomposition:** None, if handled and stored according to directions.

**Hazardous reactions:** Exothermic reaction with peroxides possible.

**Conditions to avoid:** Moisture.

**Materials to avoid:** Free radicals, peroxides, water.

**Hazardous decomposition products:** Methanol on hydrolysis.

In case of fire acrid acrylic fumes.

## 11. Toxicological information

**Acute oral toxicity:** LD<sub>50</sub> (rat) > 5000 mg/kg

**Irritation of skin :** On prolonged exposure weak irritation possible.

**Irritation of eye:** On prolonged exposure weak irritation possible.

**Specific effects:** Allergic reactions to methacrylates are possible.

Potential harmful on ingestion (product of hydrolysis: methanol).

## 12. Ecological information

Do not discharge into drains or the environment.

**Mobility:** No data available.

**Persistence und degradability:** ca. 75 %

**Ecotoxicity:** Fish toxicity LC<sub>50</sub> > 1024 mg/l / 96 h (*Brachydanio rerio*).

## 13. Disposal considerations

**Waste from residues:** Use proper landfill disposal or incineration in accordance with local, state and federal regulations.

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<b>14. Transport information</b>  Additional information: Not dangerous cargo.
<b>15. Regulatory information</b>  Labelling according to international regulations: no labelling.
<b>16. Other information</b>  None.

The data given here is based on current knowledge and experience. The data does not signify any warranty with regard to the product's properties.