

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 16.08.2010

Revision: 16.08.2010

1 Identification of substance**Product details****Trade name****Phenyltrichlorosilane****Stock number:**

A16713, L16618

Manufacturer/Supplier:Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com**Informing department:**

Product safety department.

Emergency information:Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon: +49(0)6131/19240**2 Hazards identification****Hazard designation:**

T Toxic

Information pertaining to particular dangers for man and environmentR 21 Harmful in contact with skin.
R 23 Toxic by inhalation.
R 34 Causes burns.**GHS label elements****Danger**

H330 - Fatal if inhaled.

**Danger**

H314 - Causes severe skin burns and eye damage.

Warning

H312 - Harmful in contact with skin.

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.

P309 IF exposed or if you feel unwell:

P310 Immediately call a POISON CENTER or doctor/physician.

P402 Store in a dry place.

Prevention:**Response:****Storage:****3 Composition/information on ingredients****Chemical characterization:**

Phenyltrichlorosilane (CAS# 98-13-5)

Designation: (CAS#)**Identification number(s):**

202-640-8

EINECS Number:**4 First aid measures****General information**Instantly remove any clothing soiled by the product.
Remove breathing apparatus only after soiled clothing has been completely removed.**After inhalation**In case of irregular breathing or respiratory arrest provide artificial respiration.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.**After skin contact**

Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

After swallowingRinse opened eye for several minutes under running water. Then consult doctor.
Seek immediate medical advice.**5 Fire fighting measures****Suitable extinguishing agents**CO₂, sand, extinguishing powder. Do not use water.**For safety reasons unsuitable extinguishing agents**

Water.

Special hazards caused by the material, its products of combustion or flue gases:Can be released in case of fire:
Carbon monoxide and carbon dioxide
Silicon oxide
Hydrogen chloride (HCl)
Wear self-contained breathing apparatus.
Wear full protective suit.**Protective equipment:****6 Accidental release measures****Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Ensure adequate ventilation

Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

Additional information:**7 Handling and storage****Handling****Information for safe handling:**Handle under dry protective gas.
Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.
Open and handle container with care.**Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Storage**Requirements to be met by storerooms and containers:**

No special requirements.

Information about storage in one common storage facility:Store away from oxidizing agents.
Store away from strong bases.
Store away from water.(Contd. on page 2)
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Trade name **Phenyltrichlorosilane****Further information about storage conditions:**

Store under dry inert gas.
 This product is moisture sensitive.
 Keep container tightly sealed.
 Store in cool, dry conditions in well sealed containers.
 Protect from humidity and keep away from water.
 Store in a locked cabinet or with access restricted to technical experts or their assistants.

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8 Exposure controls and personal protection**Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with critical values that require monitoring at the workplace:

Not required.

Additional information:

No data

Personal protective equipment**General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.
 Instantly remove any soiled and impregnated garments.
 Wash hands during breaks and at the end of the work.
 Store protective clothing separately.
 Avoid contact with the eyes and skin.

Breathing equipment:

Use breathing protection with high concentrations.

Protection of hands:

Check protective gloves prior to each use for their proper condition.

Material of gloves

Impervious gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

Not determined

Eye protection:

Face protection

Safety glasses

Tightly sealed safety glasses.

Full face protection

Protective work clothing.

Body protection:**9 Physical and chemical properties:****General Information**

Form: Liquid
Colour: Colourless
Smell: Acrid

Change in condition**Melting point/Melting range:** Not determined**Boiling point/Boiling range:** 201°C**Sublimation temperature / start:** Not determined**Flash point:**

91°C

Ignition temperature:

Not determined

Decomposition temperature:

Not determined

Danger of explosion:

Product is not explosive.

Critical values for explosion:**Lower:** Not determined**Upper:** Not determined**Steam pressure:**

Not determined

Density at 20°C1.324 g/cm³**Solubility in / Miscibility with****Water:** Reacts**10 Stability and reactivity****Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

Materials to be avoided:

Oxidizing agents

Water/moisture

Bases

Dangerous reactions:

No dangerous reactions known

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide

Silicon oxide

Hydrogen chloride (HCl)

11 Toxicological information**Acute toxicity:****LD/LC50 values that are relevant for classification:**

| | | |
|--------------------|---------|-----------------------------------|
| Oral | LD50 | 2390 mg/kg (rat) |
| Dermal | LD50 | 1178 mg/kg (rabbit) |
| Inhalative | LC50/2H | 330 mg/m ³ /2H (mouse) |
| Irritation of skin | severe | 5 mg/24H (rabbit) |

Primary irritant effect:

Corrosive effect on skin and mucous membranes.

on the skin:

Strong corrosive effect.

on the eye:

No sensitizing effect known.

Sensitization:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Additional toxicological information:

Danger by skin resorption.

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

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Trade name **Phenyltrichlorosilane**

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12 Ecological information:

Additional ecological information:
General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.
 Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
 Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Product:
Recommendation

Hand over to disposers of hazardous waste.
 Must be specially treated under adherence to official regulations.
 Consult state, local or national regulations for proper disposal.

Uncleaned packagings:
Recommendation:

Disposal must be made according to official regulations.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

ADR/RID-GGVS/E Class: 8 (C3) Corrosive substances.
Kemler Number: X80
UN-Number: 1804
Packaging group: II
Label: 8
Designation of goods: 1804 PHENYLTRICHLOROSILANE
Limited quantities (LQ): LQ22
Transport category: 2
Tunnel restriction code: E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 8
UN Number: 1804
Label: 8
Packaging group: II
Marine pollutant: No
Segregation groups: Acids
Correct technical name: PHENYLTRICHLOROSILANE

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 8
UN/ID Number: 1804
Label: 8
Packaging group: II
Correct technical name: PHENYLTRICHLOROSILANE

UN "Model Regulation":
 UN1804, PHENYLTRICHLOROSILANE, 8, II

15 Regulatory information**Designation according to EC guidelines:**

Code letter and hazard designation of product:



T Toxic

Risk phrases:

21 Harmful in contact with skin.
 23 Toxic by inhalation.
 34 Causes burns.

Safety phrases:

8 Keep container dry.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

National regulations**Information about limitation of use:**

Employment restrictions concerning young persons must be observed.
 For use only by technically qualified individuals.

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.**Contact:** Zachariah Holt**Abbreviations and acronyms:** ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent