

SAFETY DATA SHEET (91/155/EWG)

degussa.

Protectosil CIT

material No.		Version	2.0 / REG_EU
specification	131910	Revision date	18.12.2002
VA-Nr		Print Date	19.12.2002
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**Product information**

Trade name	:	Protectosil CIT
Company	:	Degussa AG, Aerosil & Silanes Produktsicherheit AS-FA-PS Postfach 1345 D-63403 Hanau
Telephone	:	+49 (0)6181 59-4787
Telefax	:	+49 (0)6181 59-4205
Emergency telephone number	:	+49 (0)89 455 60-273
Use of the Substance / Preparation function	:	For industrial use hydro- and oleophobic agent Corrosion inhibitor

2. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

silane-preparation

Information on ingredients / Hazardous components

• triethoxyisobutylsilane	> 20%		
CAS-No.	17980-47-1	EC-No.	402-810-3
Symbol(s):	Xi	R-phrases)	R38
• 2-diethylaminoethanol	< 5%		
CAS-No.	100-37-8	EC-No.	202-845-2
Symbol(s):	C	R-phrases)	R10, R20/21/22, R34

See chapter 16 for text of risk phrases

3. HAZARDS IDENTIFICATION

Irritant

Irritating to skin.

4. FIRST AID MEASURES**General advice**

|| Remove contaminated or saturated clothing.

Inhalation|| Following inhalation of aerosols or mist:
|| Possible discomfort: irritation of mucous lining (nose, throat, eyes) cough, sneezing, flow of tears.

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- Take affected persons out into the fresh air.
- In case of persistent discomfort: Supply with medical care.

Skin contact

- Wash off immediately with plenty of water.
- In case of persistent discomfort: Supply with medical care.

Eye contact

- Keeping eyelid open, immediately rinse thoroughly for at least 5 minutes using plenty of water or, if necessary, eye rinsing solution.
- Consult an ophthalmologist.

Ingestion

- Have the mouth rinsed with water.
- Have patient drink plenty of water in small sips.
- Obtain medical attention.

Notes to physician

- If required, therapy of irritative effect.
- If substance has been swallowed:
Early endoscopy in order to assess mucosa lesions in the oesophagus and stomach which may appear. If necessary, suck away leftover substance.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

alcohol-resistant foam, water spray, CO₂, dry powder

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Ensure adequate ventilation.
Use personal protective equipment.

Environmental precautions

Do not allow entrance in soil, stretches of water, drainage systems.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Fill into marked, sealable containers.
To be disposed of in compliance with existing regulations.
Suitable binder: sand (for damming up), sawdust, universal absorbent

7. HANDLING AND STORAGE**Handling****Safe handling advice**

Use in the open air or with adequate ventilation.

Advice on protection against fire and explosion

Take precautionary measures against static charges, keep away from sources of ignition.
Explosion protection equipment required.

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Storage**Requirements for storage areas and containers**

Keep containers tightly closed in a cool, well-ventilated place.
Protect from moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Components with workplace control parameters****Engineering measures**

Provide adequate ventilation.

Personal protective equipment**Respiratory protection**

In case of dusts/vapours/aerosols being formed or if the limit values like TLV are exceeded: use respiratory equipment with suitable filter or wear a self contained respiratory apparatus

Hand protection

Glove material	for example, butyl-rubber
Material thickness	0,5 mm
Break through time	>= 480 min
Glove material	for example, Fluorinated rubber (Viton)
Material thickness	0,4 mm
Break through time	>= 480 min

Selection of protective gloves to meet the requirements of specific workplaces.

Suitability for specific workplaces should be clarified with protective glove manufacturers.

The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials.

Remember that the useful time per day of a chemical protection glove may be much shorter than the permeation time determined according to EN 374 due to the many different influential factors involved (e.g. temperature).

Eye protection

safety glasses

Hygiene measures

Avoid contact with skin and eyes.

Do not inhale vapours / aerosols.

Remove contaminated or saturated clothing.

Smoking, eating and drinking should be prohibited in the application area.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	liquid
Colour	colourless to yellowish
Odour	characteristic

Safety data

pH	11 (1.000 g/l) (20 °C)
Melting point/range	< -65 °C

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Boiling point/range	ca. 186 °C (1.013 hPa) Method: DIN 51 751
Flash point	62 °C Method: DIN 51 755
Ignition temperature	not determined
Lower explosion limit	0,39 %(V) (98 °C) Method: DIN 51649 related to substance: triethoxyisobutylsilane
Upper explosion limit	8,47 %(V) (150 °C) Method: DIN 51649 related to substance: triethoxyisobutylsilane
Vapour pressure	0,68 hPa (25 °C) related to substance: triethoxyisobutylsilane
Density	0,882 g/cm ³ (20 °C) Method: DIN 51757
Water solubility	not miscible decomposition by hydrolysis

10. STABILITY AND REACTIVITY

Materials to avoid	water
Hazardous decomposition products	ethanol in case of hydrolysis
Hazardous reactions	No dangerous reactions known.

11. TOXICOLOGICAL INFORMATION

Skin irritation	irritating Lit.(1)
Further information	Lit.(1) The data are derived from the labelling according to the EC Dangerous Preparations Directive.

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12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)****Behaviour in environmental compartments****Ecotoxicity effects****Further information on ecology**

Further Information No ecotoxicological studies are available.

13. DISPOSAL CONSIDERATIONS**Product**

With respect to local regulations, e.g. dispose of to suitable waste incineration plant.
A waste code in accordance with the European Waste Catalogue (EWC) may not be assigned to this product since it admits of a classification only when the consumer uses it for some purpose.
In agreement with the waste code must be determined regional waste disposal authority or company.

14. TRANSPORT INFORMATION**Transport/further information**

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION**labelling according to EEC Directive**

Statutory basis/list	According to the Dangerous Preparations Directive (1999/45/EG):	
Symbol(s):	Xi	Irritant
R-pharse(s)	R38	Irritating to skin.
S-pharse(s)	S24	Avoid contact with the skin.

National legislation**16. OTHER INFORMATION****registration**

Australia (AICS) listed/registered

Risk phrase (R phrase) texts

- **triethoxyisobutylsilane**
R38 Irritating to skin.
- **2-diethylaminoethanol**
R10 Flammable.

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R20/21/22
R34

Harmful by inhalation, in contact with skin and if swallowed.
Causes burns.

Further information

Changes since the last version will be highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.