

MATERIAL SAFETY DATA SHEET



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Revision: 1
ID:

PROTECTOSIL® 100

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

Product Name
Protectosil® 100

COMPOSITION/INFORMATION ON INGREDIENTS

Information on ingredients / Hazardous components

Trimethoxy(2-methylpropyl)silane

| | | | |
|------------|------------|-------------|-----------|
| CAS-No. | 18395-30-7 | EC-No. | 242-272-5 |
| Symbol(s): | Xi | R-Phrase(s) | R10, R38 |

3. HAZARDS IDENTIFICATION

Flammable
Irritant

Flammable
Irritating to skin

4. FIRST AID MEASURES

General advice

Take off all contaminated clothing immediately.

Inhalation

If aerosol or mists are formed:

Take affected persons out into the fresh air.

In case of persistent discomfort: Consult doctor immediately.

Skin contact

Wash off immediately with plenty of water

Consult a doctor in the event of permanent skin irritation.

Eye contact

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

In case of persistent discomfort: Consult an ophthalmologist.

Ingestion

Have the mouth rinsed with water.

Call a physician immediately

Notes to Physician

If required, therapy or irritative effect.

After absorbing larger amount of substance:

Liberation of reaction products (Methanol) can lead to symptoms of poisoning.

Possible signs of poisoning:

Daze, dizziness, nausea, colicky abdominal pain, respiratory disturbance.

Symptoms upon increasing intoxication: dysopia, loss of eyesight.

Treatment:

Immediate gastric lavage. Antidote treatment, correction of acid-base balance.

Detection of substance (Methanol) possible in:

Blood

Antidote treatment: ethanol

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Foam, water spray, CO₂, dry powder

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Keep away from sources of ignition – No smoking

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 off in compliance with existing regulations.

Suitable binder: sand (for damming up), universal absorbent

7. HANDLING AND STORAGE

Handling

Safe handling advice

Application, processing:

Provide good ventilation or extraction

Advice on protection against fire and explosion

Take precautionary measures against static charges, keep away from sources of ignition.

Explosion protection equipment required.

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 for good ventilation or extraction

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 0.5mm

Break through time >=480 min

Glove material for example, Fluorinated rubber (Vitoject)

Material thickness 0.4mm

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 all contaminated clothing or saturated clothing

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: liquid
Colour: colourless
Odour: fruity

Safety data

pH: not determined
Melting point/range: not determined
Boiling point/range: 150°C (1.013 hPa)
Method: DIN 51 751

Flash point : 39 °C
Method: DIN 51 755

Ignition temperature: not determined

Vapour pressure: ca. 3hPa (20 °C)

Density: 0.93g/cm³ (20 °C)
Method: DIN 51 757

Water solubility: not miscible
Decomposition by hydrolysis

Viscosity, dynamic: 0.8 mPa.s (20 °C)
Method: DIN 53 015

Further information

Other information: Vapours can form explosive mixtures with air.

10. STABILITY AND REACTIVITY

Materials to avoid water, atmospheric humidity
Hazardous decomposition products: methanol in case of hydrolysis

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity LD50 rat: > 2.000 mg/kg Lit.(1)
Acute inhalation toxicity LC50 rat: 25 mg/l /6 h Lit.(1)
Skin irritation: irritating Lit.(1)
Eye irritation: not irritating Lit.(1)
Sensitization: not sensitising Method: Buehler Test Lit.(1)
Further information Lit.(1) ; Own study

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability: 47 %
Method: EC 84/449

Behaviour in environmental compartments

Ecotoxicity effects

Toxicity to fish: LC50 Brachydanio rerio: >=100.00 mg/l / 96 h
Method: EC 92/69

Toxicity to daphnia: EC50 Daphnia magna: >864.00 mg/l / 48h
Method: EC 84/449

Toxicity to algae: EC50 Scenedesmus subspicatus: .
>1,170.00 mg/l / 72 h
Method: EC 92/69

NOEC scenedesmus subspicatus: 221 mg/l /72h
Method: EC92/69

Toxicity to bacteria: EC10 Pseudomonas putida:
1200.00 mg/l / 5h

Method: Bringmann und Kühn, Z. Wasser

Anwasser Forsch. 10, 87-98 (1977) tested in the presence of emulsifiers

Toxicity in terrestrial plants:
EC50 Brassica alba: >100.00 mg/kg /336h
Method: OECD 208
EC50 Triticum aestivum: >100.00 mg/kg /336h
Method: OECD 208
EC50 Lepidium sativum: >100.00 mg/kg /336h
Method: OECD 208

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Further information on ecology

The data we have at our disposal do not necessitate identification concerning environmental hazard.

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

Land transport ADR/RID/GGVSE (Germany)

Class: 3

ADR/RID – Labels: 3

UN-No. 1993

Packaging group III

Orange warning plate 30/1993

Description of the goods (Technical name)

FLAMMABLE LIQUID, N.O.S.

(Trimethoxy (2-methylpropyl)silane)

Sea transport IMDG- Code/GGVSee

Class: 3

UN-No. 1993

Packaging group III

EmS 3-07

Proper technical name (Proper shipping name)

Orange warning plate 30/1993

Description of the goods (Technical name)

FLAMMABLE LIQUID, N.O.S.

(Trimethoxy (2-methylpropyl)silane)

Air transport ICAO-TI/IATA-DGR

Class: 3

UN-No. 1993

Packaging group III

Proper Technical name (Proper shipping name)

FLAMMABLE LIQUID, N.O.S.

(Trimethoxy (2-methylpropyl)silane)

Loading instructions/Remarks

IATA_C ERG-Code 3L

IATA_P ERG-Code 3L

ADR Special provision 640E

RID Special provision 640E

15. REGULATORY INFORMATION

labelling according to EEC Directive

Statutory basis/list According to Directive 67/548/EEC

Symbol(s) Xi Irritant

R-phrases) R10 Flammable
R38 Irritating to skin

S-phrases) S23 Do not breathe
gas/fumes/vapour/spray

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

S28 After contact with skin, wash
immediately with plenty of soap and
water

S38 In case of insufficient ventilation, wear
suitable respiratory equipment

16. OTHER INFORMATION

Further information

Risk phrase (R phrase) texts

- (Trimethoxy (2-methylpropyl)silane)

R10 Flammable
R38 Irritating to skin

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.

