

Safety Data Sheet

PROTHERM STEEL

Safety Data Sheet dated 3/7/2006, version 4

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

Trade name: PROTHERM STEEL
Trade code: S00001
Product type and use: intumescent paint
Company:

ITALVIS PROTECT S.R.L.
via Zibido 3 20080 Zibido S. Giacomo (Mi)
tel. +39 02 905944
fax +39 02 90005058

Emergency telephone number of the company and/or of an authorised advisory centre:
Centro Antiveleni - Ospedale di Niguarda - Milano - Tel. 02/66101029
Centro Antiveleni - Fondazione Salvatore Maugeri - Pavia Tel. 0382/24444

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components within the meaning of EEC directive 67/548 and corresponding classification:
"The product contain Nafta (petrolio), frazione pesante di "hydrotreating" (Cas: 64742-48-9) degraded according to note J enclosure I of the consolidate version Di..67/548/CE"

12.5% - 15% Solvent naphtha (petroleum), light arom
N.67/548/CEE: 649-356-00-4 CAS: 64742-95-6 EINECS: 265-199-0
N Xn R10 R51/53 R66 R65

10% - 12.5% Nafta (petrolio), frazione pesante di 'hydrotreating'
N.67/548/CEE: 649-327-00-6 CAS: 64742-48-9 EINECS: 265-150-3
Xn R10 R65 R66

3% - 5% xylene
N.67/548/CEE: 601-022-00-9 CAS: 1330-20-7 EINECS: 215-535-7
Xn R10 R20/21 R38

1% - 3% n-butyl acetate
N.67/548/CEE: 607-025-00-1 CAS: 123-86-4 EINECS: 204-658-1
R10 R66 R67

3. HAZARDS IDENTIFICATION

The product is a liquid that can catch fire at temperatures in excess of 21 °C if exposed to an ignition source.
Repeated exposure to the product may cause skin dryness or cracking.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Contact with skin:
Wash with plenty of water and soap.
Contact with eyes:
Wash immediately with water for at least 10 minutes.
Swallowing:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
A suspension of activated charcoal in water, or liquid paraffin may be administered.

Inhalation:
Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION.

5. FIRE-FIGHTING MEASURES

Recommended extinguishers:
In case of fire, use CO2, extinguish powder, Never use water
Extinguishers not to be used:
None in particular.
Risks arising from combustion:
Avoid inhaling the fumes.
Protective equipment:
Use protection for the respiratory tract.
Cool the containers exposed to the fire with water.

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6. ACCIDENTAL RELEASE MEASURES

Measures for personal safety:

Use gloves and protective clothing.

Environmental measures:

Limit leakages with earth or sand.

Eliminate all unguarded flames and possible sources of ignition. Do not smoke.

If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.

Cleaning methods:

If the product is in a liquid form, stop it from entering the drainage system.

Recover the product for re-use if possible, or for elimination. The product might, where appropriate, be absorbed by inert material.

After the product has been recovered, rinse the area and materials involved with water.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact and inhalation of the vapours. See, too, paragraph 8 below.

Do not eat or drink while working.

Do not smoke while working.

Incompatible materials:

None in particular.

Storage conditions:

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Instructions as regards storage premises:

Cool and adequately ventilated.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Precautionary measures:

Give adequate ventilation to the premises where the product is stored and/or handled.

Respiratory protection:

Not needed for normal use.

Protection for hands:

Not needed for normal use.

Eye protection:

Not needed for normal use.

Protection for skin:

No special precaution must be adopted for normal use.

Exposure limit(s) (ACGIH):

Nafta (petrolio), frazione pesante di 'hydrotreating'

TLV TWA: 1200 mg/m³ ACGIH

xylene

TLV TWA: 100 ppm, A4 - 434 mg/m³, A4 TLV STEL: 150 ppm, A4 - 651 mg/m³, A4

n-butyl acetate

TLV TWA: 150 ppm, (A4) - 713 mg/m³, (A4) TLV STEL: 200 ppm, (A4) - 950 mg/m³, (A4)

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour: White tixotropic liquid

Odour: Light solvent

Flash point: 21°C < p.i. < 55 °C

Relative density: 1,25 g/cm³ 20 °C

10. STABILITY AND REACTIVITY

Conditions to avoid:

Stable under normal conditions.

Substances to avoid:

Avoid contact with combustible materials. The product could catch fire.

Hazardous decomposition products:

It may catch fire on contact with oxidising mineral acids, and powerful oxidising agents.

11. TOXICOLOGICAL INFORMATION

The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

Set out below is the toxicological information relating to the main substances in the preparation.

Polifosfato d'ammonio

ACUTE TOXICITY:

Inhalation LC50 (rat) > 5mg/l/4h

Oral LD50 (rat) > 2000mg/kg

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Dermal LD50 (rat) > 2000mg/kg

ISKIN IRRITATION:
OECD 404 metod (RABBIT/4h) little signes irritation (main value < 2).

EYE IRRITATION:
OECD 405 metod (rabbit) little signes irritation.

SKIN SENSIBILISATION:
MAGNUSSON/KLIGMAN metod: no signes.

MELAMINA

ACUTE TOXICITY
ORAL INTAKE
LD50 male rat: 3,100 mg/kg
LD50 female rat: 3,800 mg/kg
LD50 male mouse: 3,300 mg/kg
LD50 female mouse: 7,000 mg/kg
EYE IRRITATION: mild
SKIN IRRITATION: none
SENSITIZATION: none

CLOROPARAFFINA

SKIN EFFECTS: Mild skin irritation possible with repeated or prolonged exposure.
INGESTION EFFECTS: Rat 13 weeks NOEL 900mg/kg/day
TARATOLOGY: rat 5000 mg/kg/day: NO TERATIGENIC RESPONSE Pregnant Dutch Belted rabbit: 1000 mg/kg/day:
NO TERATIGENIC RESPONSE
MUTAGENICITY: Rat: Invivo cytogenetic evaluation of bone marrow cells, 5000 mg/kg/day did not produce any increase in frequency of chromosome abnormalities; not clastogenic.

xylene

LD50 (RAT) ORAL: 5000 MG/K
Acute effects: this product is harmful if inhaled and/or absorbed through the skin; it may irritate the mucosas, the upper respiratory tract as well as the eyes. Exposure symptoms may include burning and irritation of the eyes, mouth, nose, throat; cough, difficult breathing, dizziness, headache, nausea and vomiting. In the worst cases, if inhaled, this product may cause inflammation and oedema of the larynx and bronchi, chemical pneumonia, and pulmonary oedema.
The product may irritate the contact spot and often causes at the same time increased skin temperature, intumescence, itching.
Ingestion of even a minimal product quantity may impair health (belly-ache, nausea, vomiting, diarrhoea, etc.)
Xylene: toxic effect on the central nerve system (encephalopathies); conjunctivitis; irritation of the cutis, cornea and respiratory tract.
This product also contains ethylbenzene.

n-butyl acetate

In case of repeated exposure, this product may decrease the skin thus causing dryness and chapping.
This product contains highly volatile substances which may seriously impair the central nervous system (CNS) with symptoms such as drowsiness and dizziness, loss of reflex, narcosis.
N-butyl acetate: its vapours strongly irritate the eyes and the respiratory tract and, if highly concentrate, also cause narcosis. Frequent contact with the skin may cause dermatitis. (INRS N.31, 1987).

DL50 rat, by os:	>8800mg/kg
CL50/ rat, by inhalation:	>21mg/kg
DL50/rabbit, by skin:	>2000mg/kg

Primary skin irritation / rabbit: no irritation
Primary mucosa irritation /rabbit: no irritation

12. ECOLOGICAL INFORMATION

Adopt good working practices, so that the product is not released into the environment.
List of substances dangerous for the environment and corresponding classification:
12.5% - 15% Solvent naphtha (petroleum), light arom
N.67/548/CEE: 649-356-00-4 CAS: 64742-95-6 EINECS: 265-199-0
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

ECOTOXICOLOGICAL INFORMATIONS ABOUT COMPONENTS

PERSISTENCE/DEGRADABILITY: Halve time for decline are not known.
MOBILITY : Do not empty into drains: it will agglomerate or block mains.

Polifosfato d'ammonio

MOBILITY: low solubility in water.

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PERSISTENCE/DEGRADABILITY:

Lowly idrolized by ortoforic that act as nourishingfor plants and it can precipitate metals. Don't introduce in surface water

Elimination take place with adsorbiment by chiarification mud.

LC50/96h (rainbow trout) > 100mg/l

EC50/48h (daphnia magna) > 100mg/l

MELAMINA

LC50 96 h fish >3000 mg/l

NOEC fish chronic test >1000 mg/l

LC50 48 Daphnia >2000 mg/l

NOEC Daphnia Magna 21 days: 18 mg/l

EC50 Algae 940 mg/l

NOEC Algae: 320 mg/l

EC50 bacteria: 10000mg/l

LOW TOXICITY FOR AQUATIC ORGANISMS

THIS SUBSTANCE IS NOT EASILY BIODEGRADABLE

CLOROPARAFFINA

ECOTOXICITY: Mussels > 60 days, 1.33 mg/l no mortality, rainbow Trout > 60 days NOEL 4.2 mg/l

xylene

Warn the local authorities if the product has contaminated water courses, the sewage system, the soil or vegetation.

Ecotoxicity: Daphnia Magna/CL50: 165 ppm

n-butyl acetate

Warn the local authorities if the product has contaminated water courses, the sewage system, the soil or vegetation.

Ichthyotoxicity: Leuciscus idus/CL50 (96h): 62mg/l

Aquatic plants: Scenedesmus subspicatus (72h): 675mg/l

Microorganisms/effects on active sludge : Pseudomonas putida/CE10 (16h): 115mg/l

13. DISPOSAL CONSIDERATIONS

Recover if possible. In so doing, comply with the local and national regulations currently in force.

Refusal dispose:

Wash the containers with proper solvents after they have been emptied by firms duly authorized to collect and eliminate this waste.

The containers shall be perfectly clean: CER 150104 metal packing.

Dirty containers and product waste: CER 080111: paints and varnishes containig organic solvents or other noxious substances.

14. TRANSPORT INFORMATION

ADR-UN number:

"These goods are not in class 3" (not dangerous goods in order to the shipping - ex NOTA under marginal 2301, letter E, ADR 99)

IATA-Class:

3 UN 1263 Packing group III

Marine pollutant:

Marine pollutant

IMDG-Class:

3 UN 1263 Packing group III

F-E, S-E

15. REGULATORY INFORMATION

88/379/EEC (Classification and Labelling):

R Phrases:

R10 Flammable.

R66 Repeated exposure may cause skin dryness or cracking.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S Phrases:

S43 In case of fire, use CO2, extinguish powder, Never use water

S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Where applicable, refer to the following regulatory provisions :

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.

16. OTHER INFORMATION

Text of R phrases referred to under heading 2:

R10 Flammable.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R66 Repeated exposure may cause skin dryness or cracking.

R65 Harmful: may cause lung damage if swallowed.

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

R38 Irritating to skin.

R67 Vapours may cause drowsiness and dizziness.

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Paragraphs modified from the previous revision:
14. TRANSPORT INFORMATION

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

ACGIH - Treshold Limit Values - 1997 edition

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.
