

**Safety data sheet**  
according to 1907/2006/EC, Article 31








Printing date 17.10.2011

Revision: 17.10.2011

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- **1.1 Product identifier**
- **Trade name:** MARITRANS
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No relevant identified uses-mixture of substances.
- **Application of the substance / the preparation** Transparent polyurethane waterproofing coating
- **1.3 Details of the supplier of the safety data sheet**  
MARIS POLYMERS SA  
Industrial Area of Inofita  
Inofita, Voiotia  
Tel: +30 22960 32918  
Fax: +322960 32919  
e-mail: info@marispolymers.gr
- **Further information obtainable from:** MARIS POLYMERS
- **1.4 Emergency telephone number:**  
Poisoning Center in Athens, Greece  
Tel: (210)779-3777

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
  -  GHS02 flame  
Flam. Liq. 3      H226 Flammable liquid and vapour.
  -  GHS08 health hazard  
Resp. Sens. 1      H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Asp. Tox. 1      H304 May be fatal if swallowed and enters airways.
  -  GHS07  
Skin Irrit. 2      H315 Causes skin irritation.  
Eye Irrit. 2      H319 Causes serious eye irritation.  
Skin Sens. 1      H317 May cause an allergic skin reaction.  
Aquatic Chronic 3      H412 Harmful to aquatic life with long lasting effects.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
  -  Xn; Harmful  
R20-65: Harmful by inhalation. Harmful: may cause lung damage if swallowed.
  -  Xn; Sensitising  
R42/43: May cause sensitisation by inhalation and skin contact.
  -  Xi; Irritant  
R37: Irritating to respiratory system.
  -  N; Dangerous for the environment  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R10: Flammable.

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· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **2.2 Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**



Xn Harmful  
N Dangerous for the environment

· **Hazard-determining components of labelling:**

Solvent naphtha (petroleum), light arom.  
1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate  
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

· **Risk phrases:**

- 10 Flammable.
- 20 Harmful by inhalation.
- 37 Irritating to respiratory system.
- 42/43 May cause sensitisation by inhalation and skin contact.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 65 Harmful: may cause lung damage if swallowed.

· **Safety phrases:**

- 13 Keep away from food, drink and animal feedingstuffs.
- 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
- 37/39 Wear suitable gloves and eye/face protection.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 57 Use appropriate container to avoid environmental contamination.
- 60 This material and its container must be disposed of as hazardous waste.
- 62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

· **Special labelling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

· **3.2 Chemical characterization: Mixtures**

· **Description:** Mixture: consisting of the following components.

· **Dangerous components:**

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CAS: 64742-95-6 EINECS: 265-199-0	Solvent naphtha (petroleum), light arom. ☒ Xn R65; ☒ Xi R37; ☒ N R51/53 R10-66-67 Carc. Cat. 2 ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H332; STOT SE 3, H335+H336	10-25%
CAS: 95-63-6 EINECS: 202-436-9	1,2,4-trimethylbenzene ☒ Xn R20; ☒ Xi R36/37/38; ☒ N R51/53 R10 ⚠ Flam. Liq. 3, H226; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	2.5-10%
CAS: 1330-20-7 EINECS: 215-535-7	xylene ☒ Xn R20/21; ☒ Xi R38 R10 ⚠ Flam. Liq. 3, H226; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	2.5-10%
CAS: 108-65-6 EINECS: 203-603-9	2-methoxy-1-methylethyl acetate ☒ Xi R36 R10 ⚠ Flam. Liq. 3, H226; ⚠ Eye Irrit. 2, H319	2.5-10%
CAS: 140921-24-0 ELINCS: 411-700-4	1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate ☒ Xi R43 ⚠ Skin Sens. 1, H317	2.5-10%
CAS: 108-67-8 EINECS: 203-604-4	mesitylene ☒ Xi R37; ☒ N R51/53 R10 ⚠ Flam. Liq. 3, H226; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H335	2.5-10%
CAS: 103-65-1 EINECS: 203-132-9	propylbenzene ☒ Xn R65; ☒ Xi R37; ☒ N R51/53 R10 ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H335	≤ 2.5%
CAS: 98-92-8	cumene ☒ N R51/53 R10 ⚠ Flam. Liq. 3, H226; ⚠ Aquatic Chronic 2, H411	≤ 2.5%
CAS: 64742-82-1	naphtha (petroleum), hydrodesulfurized heavy ☒ Xn R48/20-65 R66 ⚠ Acute Tox. 3, H331; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304	≤ 2.5%
CAS: 4098-71-9 EINECS: 223-861-6	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate ☒ T R23; ☒ Xn R42/43; ☒ Xi R36/37/38; ☒ N R51/53 ⚠ Acute Tox. 3, H331; ⚠ Resp. Sens. 1, H334; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	≤ 2.5%

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out into the fresh air.

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Seek immediate medical advice.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Seek immediate medical advice.

· **Information for doctor:**

· **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### SECTION 5: Firefighting measures

· **Suitable extinguishing agents:** CO<sub>2</sub>, dry chemical powder, foam, earth or sand

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· **5.3 Advice for firefighters**

· **Protective equipment:** Mouth respiratory protective device.

· **Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

### SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.

Do not allow to penetrate the ground/soil.

· **6.3 Methods and material for containment and cleaning up:**

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

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### SECTION 7: Handling and storage

· **Handling:**

· **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

· **Information about fire - and explosion protection:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store in a cool location.  
Prevent any seepage into the ground.  
Provide ventilation for receptacles.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

<b>95-63-6 1,2,4-trimethylbenzene</b>	
WEL	Long-term value: 125 mg/m <sup>3</sup> , 25 ppm ILV
<b>1330-20-7 xylene</b>	
WEL	Short-term value: 441 mg/m <sup>3</sup> , 100 ppm Long-term value: 220 mg/m <sup>3</sup> , 50 ppm Sk; BMGV
<b>108-65-6 2-methoxy-1-methylethyl acetate</b>	
WEL	Short-term value: 548 mg/m <sup>3</sup> , 100 ppm Long-term value: 274 mg/m <sup>3</sup> , 50 ppm Sk
<b>108-67-8 mesitylene</b>	
WEL	Long-term value: 125 mg/m <sup>3</sup> , 25 ppm ILV
<b>4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate</b>	
WEL	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**



Protective gloves

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· **Penetration time of glove material**

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

· **Eye protection:**



Safety glasses

· **Body protection:**



Protective work clothing

**SECTION 9: Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Transparent
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Melting point/Melting range:** Undetermined.

· **Boiling point/Boiling range:** 28°C

· **Flash point:** 28°C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapour pressure:** Not determined.

· **Density at 20°C:** 1.01 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:** Not determined.

· **Segregation coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· <b>Dynamic:</b>	Not determined.
· <b>Kinematic at 20°C:</b>	>90 s (ISO 6 mm)

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· **9.2 Other information** No further relevant information available.

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Stable at environment temperature.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

**64742-95-6 Solvent naphtha (petroleum), light arom.**

Oral	LD50	>6800 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)

**95-63-6 1,2,4-trimethylbenzene**

Oral	LD50	5000 mg/kg (rat)
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**103-65-1 propylbenzene**

Oral	LD50	6040 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:**
- Sensitization possible through inhalation.
- Sensitization possible through skin contact.
- Sensitizing effect by skin contact is possible by prolonged exposure.
- **Sensitisation** Sensitization possible through skin contact

**SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
- Also poisonous for fish and plankton in water bodies.
- The product contains materials that are harmful to the environment.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· **12.6 Other adverse effects** No further relevant information available.

**SECTION 13: Disposal considerations**

· **13.1 Waste treatment methods**

· **Recommendation**



Smaller quantities can be disposed of with household waste.



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

· **Uncleaned packaging:**

· **Recommendation:**

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

**SECTION 14: Transport information**

· **14.1 UN-Number**

· **IATA** 1866

· **14.2 UN proper shipping name**

· **IATA** RESIN SOLUTION

· **14.3 Transport hazard class(es)**

· **IATA**



· **Class** 3 Flammable liquids.

· **Label** 3

· **14.4 Packing group**

· **IATA** III

· **14.6 Special precautions for user**

Not applicable.

· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

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<p>· <b>Remarks:</b></p>	<p>No goods of grade 3 according to 2.2.3.1.5 ADR and 2.3.2.5 IMDG                  ADR: Containers &gt;450 l = UN 1866 - 3(F1) - RESIN SOLUTION, flammable                  IMDG: Containers &gt; 30 l = UN 1866 - 3 (F1) - RESIN SOLUTION, flammable                  Outside ADR/IMDG = UN 1866 - 3 (F1) - RESIN SOLUTION, flammable</p>
<p>· <b>IMDG</b></p> <p>· <b>Remarks:</b></p>	<p>No goods of grade 3 according to 2.2.3.1.5 ADR and 2.3.2.5 IMDG                  ADR: Containers &gt;450 l = UN 1866 - 3(F1) - RESIN SOLUTION, flammable                  IMDG: Containers &gt; 30 l = UN 1866 - 3 (F1) - RESIN SOLUTION, flammable                  Outside ADR/IMDG = UN 1866 - 3 (F1) - RESIN SOLUTION, flammable</p>

### SECTION 15: Regulatory information

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
.....	
R10	Flammable.
R20	Harmful by inhalation.
R20/21	Harmful by inhalation and in contact with skin.
R23	Toxic by inhalation.
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R42/43	May cause sensitisation by inhalation and skin contact.
R43	May cause sensitisation by skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.

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R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapours may cause drowsiness and dizziness.

· **Department issuing MSDS:**

SustChem Engineering LTD

144, 3rd Septemvriou

122 51, Athens Greece

Tel: +30 210 8252510-14

Fax: +30 210 8252575

e-mail: info@suschem.gr

· **Contact: MARIS POLYMERS**

· **Abbreviations and acronyms:**

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

GB