

Security data sheet



Product: TA4630

Manufacturer: PERMABOND ENGINEERING ADHESIVES

Product group: KLEBSTOFF

Article group: ACRYLAT

Download: 19.05.2024

PERMABOND TA4630A

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SAFETY DATA SHEET

Permabond TA4630A

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

1.1. Product identifier

Product name Permabond TA4630A

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Adhesive.

1.3. Details of the supplier of the safety data sheet

Supplier Permabond Engineering Adhesives Ltd.
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Colden Common
Winchester
Hampshire SO21 1WP
United Kingdom
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info.europe@permabond.com

1.4. Emergency telephone number

Emergency telephone CHEMTREC UK: +(44)-870-8200418 CHEMTREC US: 800-424-9300 (CCN: 829878)

National emergency telephone number CHEMTREC Ireland: +(353)-19014670
CHEMTREC Australia: +(61)-290372994
CHEMTREC New Zealand: +(64)-98010034

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

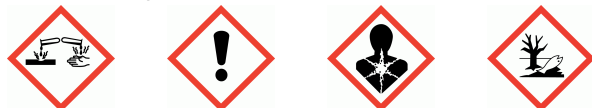
Physical hazards Not Classified

Health hazards Eye Dam. 1 - H318 Skin Sens. 1 - H317 Repr. 2 - H361d

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H361d Suspected of damaging the unborn child.
H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements	<p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352a IF ON SKIN: Wash with plenty of soap and water</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/ attention.</p>
Contains	2-PHENOXYETHYL METHACRYLATE, TRIS(2-HYDROXYETHYL)ISOCYANURATE TRIACRYLATE, p-TOLUENE SULFONYL CHLORIDE
Supplementary precautionary statements	<p>P261 Avoid breathing vapour/ spray.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P391 Collect spillage.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with existing Community, National and local regulations.</p>

2.3. Other hazards

None under normal conditions. This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

2-PHENOXYETHYL METHACRYLATE			60-100%
CAS number: 10595-06-9	EC number: 234-201-1	REACH registration number: 01-2120752383-55-XXXX	
Classification Skin Sens. 1A - H317 Repr. 2 - H361d Aquatic Chronic 2 - H411			

TRIS(2-HYDROXYETHYL)ISOCYANURATE TRIACRYLATE			5-10%
CAS number: 40220-08-4	EC number: 254-843-6	REACH registration number: 01-2120741502-64-XXXX	
Classification Eye Dam. 1 - H318 Skin Sens. 1B - H317 Aquatic Chronic 2 - H411			

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p-TOLUENE SULFONYL CHLORIDE			1-5%
CAS number: 98-59-9	EC number: 202-684-8	REACH registration number: 01-2119971273-36-XXXX	
Classification Met. Corr. 1 - H290 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317			

TRIMETHYLOLPROPANE TRIMETHACRYLATE			1-5%
CAS number: 3290-92-4	EC number: 221-950-4	REACH registration number: 01-2119542176-41-XXXX	
Classification Aquatic Chronic 2 - H411			

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. Get medical attention.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. If symptoms develop, obtain medical attention
Eye contact	Remove any contact lenses and open eyelids wide apart. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact	Mild dermatitis, allergic skin rash.
Eye contact	Causes serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations. Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Burning produces irritating, toxic and obnoxious fumes. Carbon monoxide, carbon dioxide, and unknown hydrocarbons. Oxides of nitrogen.
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5.3. Advice for firefighters

Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Use in a well ventilated area. Avoid contact with skin and eyes. Do not ingest or inhale. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in closed original container at temperatures between 5°C and 25°C. Never return unused material to storage receptacle.

7.3. Specific end use(s)

Usage description Adhesive.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

p-TOLUENE SULFONYL CHLORIDE

Short-term exposure limit (15-minute): WEL 5 mg/m³

WEL = Workplace Exposure Limit.

2-PHENOXYETHYL METHACRYLATE (CAS: 10595-06-9)

DNEL	Workers - Inhalation; Long term systemic effects: 12 mg/m ³
	Workers - Inhalation; Long term local effects: 84 mg/m ³
	Workers - Dermal; Long term systemic effects: 3.5 mg/kg/day
PNEC	Fresh water; 14.2 µg/l
	marine water; 1.42 µg/l
	STP; 1.77 mg/l
	Sediment (Freshwater); 0.665 mg/kg
	Sediment (Marinewater); 0.067 mg/kg
	Soil; 0.125 mg/kg

TRIS(2-HYDROXYETHYL)ISOCYANURATE TRIACRYLATE (CAS: 40220-08-4)

DNEL	Not relevant.
PNEC	Not relevant.

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TRIMETHYLOLPROPANE TRIMETHACRYLATE (CAS: 3290-92-4)

DNEL	Workers - Inhalation; Long term systemic effects: 14.81 mg/m ³ Workers - Dermal; Long term systemic effects: 42 mg/kg/day Workers - Dermal; Long term local effects: 9.33 mg/cm ²
PNEC	Fresh water; 2.76 µg/l marine water; 0.276 µg/l STP; 10 mg/l Sediment (Freshwater); 0.495 mg/kg Sediment (Marinewater); 0.05 mg/kg Soil; 0.097 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

The following protection should be worn: Chemical splash goggles or face shield. Personal eye protection should conform to EN 166

Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. Gloves should conform to EN 374. For exposure up to 4 hours, wear gloves made of the following material: Nitrile rubber. Thickness: ≥ 0.4 mm The selected gloves should have a breakthrough time of at least 0.5 hours. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber. Thickness: ≥ 0.4 mm The selected gloves should have a breakthrough time of at least 8 hours. The breakthrough time for any glove material may be different for different glove manufacturers. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.

Other skin and body protection

Employee must wear appropriate protective clothing and equipment to prevent any possibility of skin contact with this substance.

Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Use of good industrial hygiene practices is required.

Respiratory protection

Ensure adequate ventilation of the working area. Respiratory protection may be required if excessive airborne contamination occurs. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Organic vapour filter. Type A. (EN14387)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	Black.
Odour	Acrylic
Odour threshold	Not available.

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pH	Not relevant.
Melting point	Not available.
Initial boiling point and range	Not applicable.
Flash point	>100°C
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.0
Solubility(ies)	Slightly soluble in water. Miscible with the following materials: Organic solvents.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	≈400000 mPa s @ 25°C Thixotropic
Oxidising properties	Not available.

9.2. Other information

Other information	Not relevant.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react with the product: Strong oxidising agents.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	There are no known reactivity hazards associated with this product.
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10.4. Conditions to avoid

Conditions to avoid	Stable at normal ambient temperatures and when used as recommended.
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10.5. Incompatible materials

Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

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Toxicological effects	The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.
<u>Skin sensitisation</u>	
Skin sensitisation	May produce an allergic reaction.
<u>Reproductive toxicity</u>	
Reproductive toxicity - development	Suspected of damaging the unborn child.
<u>Aspiration hazard</u>	
Aspiration hazard	Not anticipated to present an aspiration hazard, based on chemical structure.
Inhalation	Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature.
Ingestion	No harmful effects expected from quantities likely to be ingested by accident.
Skin contact	Prolonged and frequent contact may cause redness and irritation.
Eye contact	May cause serious eye damage.

Toxicological information on ingredients.

2-PHENOXYETHYL METHACRYLATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

Species Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) No information available.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Skin corrosion/irritation Slightly irritating.

Animal data Primary dermal irritation index: 0.25

Serious eye damage/irritation

Serious eye damage/irritation Slightly irritating.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity No information available.

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Reproductive toxicity

Reproductive toxicity - fertility Screening - NOAEL 800 mg/kg/day, Oral, Rat F1

Reproductive toxicity - development Developmental toxicity: - NOAEL: 600 mg/kg/day, Oral, Rat

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 350 mg/kg/day, Oral, Rat

Aspiration hazard

Aspiration hazard Not available.

TRIS(2-HYDROXYETHYL)ISOCYANURATE TRIACRYLATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,500.0

Species Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) No information available.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Skin corrosion/irritation Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Irreversible effect.

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: Sensitising.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard Not applicable.

Permabond TA4630A**p-TOLUENE SULFONYL CHLORIDE****Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 4,680.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 5,010.0

Species Rabbit

TRIMETHYLOLPROPANE TRIMETHACRYLATE**Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 2,000.1

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.1

Species Rat

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Animal data Method: OECD 404, Rabbit Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Method: OECD 405, Rabbit Not irritating.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative.

Genotoxicity - in vivo Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity NOAEL 833 mg/kg/day, Dermal, Mouse

Reproductive toxicity

Reproductive toxicity - fertility - NOAEL > 900 mg/kg/day, Oral, Rat P, F1

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Reproductive toxicity - development Developmental toxicity: - NOAEL: 300 mg/kg/day, Oral, Rat

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard Not applicable.

SECTION 12: Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects. Avoid release to the environment.

12.1. Toxicity

Toxicity The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Ecological information on ingredients.

2-PHENOXYETHYL METHACRYLATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 72 hours: 10 mg/l, Leuciscus idus (Golden orfe)

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 1.21 mg/l, Daphnia magna

Acute toxicity - aquatic plants LC₅₀, 72 hours: 4.44 mg/l, Desmodismus subspicatus

Acute toxicity - microorganisms EC₅₀, 180 minutes: 177 mg/l, Activated sludge

p-TOLUENE SULFONYL CHLORIDE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 1009 mg/l, Danio rerio (Zebrafish)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 334 mg/l, Daphnia magna

Acute toxicity - aquatic plants NOEC, 72 hours: >2.6 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms NOEC, 3 hours: 377 mg/l, Activated sludge

TRIMETHYLOLPROPANE TRIMETHACRYLATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: > 9.22 mg/l, Daphnia magna

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Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 3.88 mg/l, <i>Pseudokirchneriella subcapitata</i> NOEC, 72 hours: 0.177 mg/l, <i>Pseudokirchneriella subcapitata</i>
Acute toxicity - microorganisms	EC ₅₀ , 3 hours: > 1000 mg/l, Activated sludge
Chronic aquatic toxicity	
Chronic toxicity - fish early life stage	NOEC, 21 days: 0.138 mg/l, <i>Pimephales promelas</i> (Fat-head Minnow)

12.2. Persistence and degradability

Persistence and degradability No data available.

Ecological information on ingredients.

TRIMETHYLOLPROPANE TRIMETHACRYLATE

Stability (hydrolysis)	pH7 - Half-life : > 9.999 hours @ 25°C
Biodegradation	Water - Degradation 53%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

Ecological information on ingredients.

TRIMETHYLOLPROPANE TRIMETHACRYLATE

Partition coefficient	log K _{ow} : 2.75 - 4.2
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12.4. Mobility in soil

Mobility No data available.

Ecological information on ingredients.

TRIMETHYLOLPROPANE TRIMETHACRYLATE

Surface tension	53 mN/m @ 20°C
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12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Waste disposal should be in accordance with existing Community, National and local regulations Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.
Disposal methods	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
Waste class	08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances.

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SECTION 14: Transport information

Road transport notes	Applies only to inner containers >5 litres. See SP 375
Sea transport notes	Applies only to inner containers >5 litres. See 2.10.2.7 of the IMDG code.
Air transport notes	Applies only to inner containers >5 liters. See SP A197 (375)

14.1. UN number

3082

14.2. UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 2-phenoxyethylmethacrylate)

14.3. Transport hazard class(es)

9

14.4. Packing group

III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS F-A, S-F

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
Guidance	Workplace Exposure Limits EH40. CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131. Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

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SECTION 16: Other information

Revision date 28/10/2020

Revision 2

Supersedes date 23/07/2020

Hazard statements in full

- H290 May be corrosive to metals.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H361d Suspected of damaging the unborn child.
- H411 Toxic to aquatic life with long lasting effects.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.