

Material Safety Data Sheet

Marlon Poly-Marine Component I - Base

Revision date: 29/09/2020
Version: 1.0.0

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

1.1. Product identifier

Trade name: Marlon Poly-Marine Component I - Base

Unique Formula Identifier (UFI): 8X81-S06P-H009-EH45

Article no

Article no	Description
8010740	

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

Recommended uses: Non-slip coating of wood, metal, and concrete.

Inadvisable uses: The product is recommended for only the above described uses.

1.3. Details of the supplier of the safety data sheet

Supplier

Company: Marlon Marine A/S
Address: Virkelyst 20
Zip code: DK-8740
City: Brædstrup
Country: DENMARK
E-mail: marlon@marlon.dk
Phone: 0045 75 75 43 00
Homepage: www.marlon.dk

1.4. Emergency Telephone Number

GB: +44 1215074123 (Advice and guidance) (Around the clock)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification: Skin Sens. 1; H317 Eye Irrit. 2; H319 Aquatic Chronic 3;H412

Most serious harmful effects: May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Pictograms



Signal word: Warning

Contains

Substance: Diethyl bis(2-hydroxyethyl) aminomethylphosphonate; Diethylphosphonat

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H-phrases

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

P-phrases

P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection/face protection.
P337+313 If eye irritation persists: Get medical advice/attention.
P333+313 If skin irritation or rash occurs: Get medical advice/attention.
P362+364 Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS No	EC No	REACH Reg. No.	Concentration	Notes	CLP-classification
Diethyl bis (2-hydroxyethyl) aminomethylphosphonate	2781-11-5	220-482-8		10 - 15%		Skin Sens. 1; H317
Diethylphosphonate	762-04-9	212-091-6	01-2119942061-50	< 0.5%		Skin Sens. 1; H317 Eye Dam. 1; H318

Please see section 16 for the full text of H-phrases.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: If patient feels unwell move to fresh air and keep under surveillance.
Ingestion: Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention immediately!
Skin contact: Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Do not use solvents.
Eye contact: Flush immediately with lukewarm water (preferably using eye wash equipment) for at least 15 minutes. Open eye wide. Remove any contact lenses. Seek medical advice.
General: If in doubt, seek medical advice. Also see para. 1

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

Pain in the eyes, redness, tears, swollen eyelids, itching Sensitization of the skin and respiratory tract.

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

Depending on the extent of exposure, a prolonged medical observation may be necessary.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: Fire can be extinguished with carbon dioxide, powder, foam or water spray.

Unsuitable extinguishing media: Do not use a direct water jet that could spread the fire.

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5.2. Special hazards arising from the substance or mixture

Avoid inhaling of waste gases. Combustion will generate harmful gases, as combustion residues and carbon monoxide.

5.3. Advice for fire-fighters

Cool closed containers with water. Fire will produce a thick black smoke. Products of combustion are harmful and respiratory protection is required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Avoid inhalation of vapors. Remove all ignition sources and ensure sufficient ventilation.

For emergency responders: Use nitrile protection gloves and self-contained breathing apparatus.

6.2. Environmental precautions

Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

6.3. Methods and material for containment and cleaning up

Prevent major quantities of spillage from being discharged into the sewage system or water by banking the spillage with sand or the like and collecting it. Clean the contaminated area with a suitable cleaning agent, but do not use solvent.

6.4. Reference to other sections

Also see item 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

The product must be kept away from children. Store in a tightly closed container and in accordance with the current regulations in a dry and well-ventilated place away from food. Keep away from ignition sources, oxidizing agents and strong acidic and basic substances. No smoking and use of open fire. No admittance to unauthorized persons. Opened containers must be carefully closed and stored upright to prevent any leakage.

7.3. Specific end use(s)

Applications is mentioned in item 1.2.

Other Information: Smoking and the consumption of food and drink are not permitted in work rooms. Personal protective equipment: Refer to section 8.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit: Contains no substances subject to reporting requirements

Legal basis: EH40/2005 Workplace exposure limits incl. supplement from October 2007.

Biological threshold values: See above.

Other Information: No information available.

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8.2. Exposure controls

- Appropriate engineering controls:** All work must be planned with a view to limit the breathing of fumes and the exposure to the skin. Work under effective process ventilation (e.g., local exhaust ventilation). If this is not possible, use respiratory protection.
- Personal protective equipment, eye/face protection:** Use suitable protective goggles or full-face mask for protection against splashes.
- Personal protective equipment, skin protection:** If possible, wear special work clothes. When spraying wear coveralls.
- Personal protective equipment, hand protection:** Use protective gloves made of nitrile at risk of prolonged or repeated skin contact. Follow the glove manufacturer's recommendations on use and replacement.
- Personal protective equipment, respiratory protection:** Not required.
- Environmental exposure controls:** It must be ensured that local regulations for discharge are met.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Liquid
Colour	Different.
Odour	Odour-free.
Solubility	Soluble in: Organic solvents.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.

Parameter	Value/unit	Remarks
pH (solution for use)	No data	
pH (concentrate)	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	No data	
Flash Point	> 62 °C	
Evaporation rate	No data	
Flammability (solid, gas)	No data	
Flammability limits	No data	
Explosion limits		Irrelevant
Vapour pressure	No data	
Vapour density	No data	
Relative density	No data	
Partition coefficient n-octanol/water	No data	
Auto-ignition temperature	No data	
Decomposition temperature	No data	
Viscosity	No data	
Odour threshold	No data	

9.2 Other information

Parameter	Value/unit	Remarks
Density	1,03 g/ml	
Fire class	III-1	
Weight % organic solvents	1	

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Other Information: Solubility in water: Insoluble in water. Fat solubility: irrelevant

SECTION 10: Stability and reactivity

10.1. Reactivity

See below.

10.2. Chemical stability

Stable under recommended storage and handling conditions.
Curing time: 24 hours at 20 ° C.

10.3. Possibility of hazardous reactions

No dangerous reaction known by normal use and normal conditions.

10.4. Conditions to avoid

Stable at normal temperature. When exposed to high temperatures, toxic decomposition products may be formed.

10.5. Incompatible materials

To prevent heat-generating reactions, keep the product away from oxidizing agents and strong acidic and basic substances.

10.6. Hazardous decomposition products

carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral:	Ingestion of large quantities may cause gastrointestinal disorders.
Acute toxicity - dermal:	Isocyanates may cause allergic (contact) eczema. Remove contamination immediately by skin contact.
Acute toxicity - inhalation:	Products containing isocyanates can cause acute irritation, coughing and breathing difficulties.
Skin corrosion/irritation:	Prolonged or repeated skin contact will degrease skin and may cause irritation.
Serious eye damage/eye irritation:	Causes serious eye irritation.
Respiratory sensitization or skin sensitization:	May cause an allergic skin reaction.
Germ cell mutagenicity:	Would not be expected germ cell mutagen
Carcinogenic properties:	Not expected to cause cancer.
Reproductive toxicity:	Would not be expected to be a reproductive toxicant.
Single STOT exposure:	No known hazards.
Repeated STOT exposure:	No known hazards.
Aspiration hazard:	No known hazards.

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SECTION 12: Ecological information

12.1. Toxicity

Diethyl phosphonate, cas-no 762-04-9

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Acute fish	Danio rerio	96 h	EC50	209.1mg/l			
Acute Daphnia	Daphnia magna	24 h	EC50	78.2mg/l			
Acute algae	Scenedesmus quadricauda	72 h	IC50	> 92.8mg/l			

12.2. Persistence and degradability

No information available

12.3. Bio accumulative potential

No information available

12.4. Mobility in soil

The product is insoluble in water and will spread out on the surface.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

No information available

Other Information

Do not dispose of this product in drains, watercourses, or on the ground. This product is classified as hazardous to the environment according to the calculation method. Please see par. 2 and 3 for further information.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid discharge to drain or surface water.

Product residues are classified as chemical waste.

Category of waste: Waste-code: 08 01 11

SECTION 14: Transport information

14.1. UN-No.: Not applicable.

14.4. Packing group: Not applicable.

14.2. UN proper shipping name: Not applicable.

14.5. Environmental hazards: Not applicable.

14.3. Transport hazard class(es): Not applicable.

14.6. Special precautions for user

Irrelevant.

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

Irrelevant.

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SECTION 15: Regulatory information

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

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

SECTION 16: Other information

Version history and indication of changes

Version	Revision date	Responsible	Changes
1.0	29/09/2020	AL	None

Abbreviations: DNEL: Derived No Effect Level. PNEC: Predicted No Effect Concentration.

References to literature and data sources: REACH: REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals. CLP: REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures.

Other Information: The information in this Material Safety Data Sheet is based upon our knowledge and on European Union legislation. The user's working conditions are outside our control. It is the responsibility of the users to fulfil the requirements set by National Legislation. The information is no guarantee of the properties of the product. The Material Safety Data Sheet may only be reproduced with the permission of the manufacturer.

Training advice: The instructions in this Material Safety Data Sheet are given on the assumption that the product is used as stated in item 1. Restrictions of use and special training requirements must also be complied with. The information in this Material Safety Data Sheet should be regarded as a description of the safety issues concerning the product.

List of relevant H-statements

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Document language: GB

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Poly-Marine Component II - hardener

Revision date: 29/09/2020
Version: 1.0

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

1.1. Product identifier

Trade name: Poly-Marine Component II - hardener

Unique Formula Identifier (UFI): HU9D-GT80-XN5R-PAGD

Article no

Article no	Description
8010740	

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

Recommended uses: Hardener for Poly-marine comp I

Inadvisable uses: The product is recommended for only the above described uses.

1.3. Details of the supplier of the safety data sheet

Supplier

Company: Marlon Marine A/S
Address: Virkelyst 20
Zip code: DK-8740
City: Brædstrup
Country: DENMARK
E-mail: marlon@marlon.dk
Phone: 0045 75 75 43 00
Homepage: www.marlon-marine.com

1.4. Emergency Telephone Number

GB: +44 1215074123 (Advice and guidance) (Around the clock)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification: Skin Irrit. 2;H315 Skin Sens. 1;H317 Eye Irrit. 2;H319 Acute Tox. 4;H332 Resp. Sens. 1B;H334 STOT SE 3;H335 Carc. 2;H351 STOT RE 2;H373

Most serious harmful effects: Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Pictograms



Signal word: Danger

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Contains

Substance: #Not translated#; 4,4'-methylenediphenyl diisocyanate; o-(p-isocyanatobenzyl) phenyl isocyanate

H-phrases

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 May cause respiratory irritation.
 H351 Suspected of causing cancer.
 H373 May cause damage to organs through prolonged or repeated exposure.

P-phrases

P261 Avoid breathing vapors.
 P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 P280 Wear protective gloves/eye protection/face protection.
 P337+313 If eye irritation persists: Get medical advice/attention.
 P308+313 IF exposed or concerned: Get medical advice/attention.
 P333+313 If skin irritation or rash occurs: Get medical advice/attention.
 P302/352 IF ON SKIN: Wash with plenty of soap and water.

Supplemental information

EUH204 Contains isocyanates. May produce an allergic reaction.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS No	EC No	REACH Reg. No.	Concentration	Notes	CLP-classification
#Not translated#	9016-87-9	618-498-9		50 - 75%		Skin Irrit. 2;H315 Skin Sens. 1;H317 Eye Irrit. 2;H319 Acute Tox. 4;H332 Resp. Sens. 1;H334 STOT SE 3;H335 Carc. 2;H351 STOT RE 2;H373
4,4'-methylenediphenyl diisocyanate	101-68-8	202-966-0	01-2119457014-47	10 - 25%		Skin Irrit. 2;H315 Skin Sens. 1;H317 Eye Irrit. 2;H319 Acute Tox. 4;H332 Resp. Sens. 1;H334 STOT SE 3;H335 Carc. 2;H351 STOT RE 2;H373
o-(p-isocyanatobenzyl)phenyl isocyanate	5873-54-1	227-534-9	01-2119480143-45	10 - 25%		Skin Irrit. 2;H315 Skin Sens. 1;H317 Eye Irrit. 2;H319 Acute Tox. 4;H332 Resp. Sens. 1;H334 STOT SE 3;H335 Carc. 2;H351 STOT RE 2;H373

Please see section 16 for the full text of H-phrases.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: If patient feels unwell move to fresh air and keep under surveillance. If the victim is

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unconscious, ascertain whether the victim is breathing. If breathing has stopped, apply artificial respiration. If the victim is unconscious but breathing, place in the recovery position and keep warm with blankets. Call an ambulance immediately.

Ingestion: Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Call for medical attention/ambulance.

Skin contact: Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Do not use solvents.

Eye contact: Flush immediately with lukewarm water (preferably using eye wash equipment) for at least 15 minutes. Open eye wide. Remove any contact lenses. Seek medical advice.

Burns: Flush with plenty of water until pain ceases. Whilst flushing with water, remove all loose clothing from area of burns. If medical treatment is necessary, continue rinsing until a doctor takes over the treatment.

General: If in doubt, seek medical advice. Also see para. 1

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

Sensitization of the skin and respiratory tract.

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

Depending on the extent of exposure, a prolonged medical observation may be necessary.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: Fire can be extinguished with carbon dioxide, powder, foam or water spray.

Unsuitable extinguishing media: Do not use a direct water jet that could spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will produce carbon monoxide, carbon dioxide, nitrogen oxides, isocyanate vapors and traces of hydrogen cyanide. Avoid inhalation of vapor and fumes - seek fresh air.

5.3. Advice for fire-fighters

Cool closed containers with water. Fire will produce a thick black smoke. Products of combustion are harmful and respiratory protection is required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel: Avoid inhalation of vapors. Avoid all skin contact. In case of accident use air-supplied respirators and nitrile gloves.

For emergency responders: Use nitrile protection gloves and self-contained breathing apparatus.

6.2. Environmental precautions

Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

6.3. Methods and material for containment and cleaning up

Contain and absorb spill with sand or other absorbent, non-combustible material, and transfer to suitable waste containers. See section 13 for instructions on disposal. Clean with a suitable cleaning agent.

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6.4. Reference to other sections

Also see item 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with the skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

The product must be kept away from children. Store in a tightly closed container and in accordance with the current regulations in a dry and well-ventilated place away from food. Keep away from ignition sources, oxidizing agents and strong acidic and basic substances. No smoking and use of open fire. No admittance to unauthorized persons. Opened containers must be carefully closed and stored upright to prevent any leakage.

7.3. Specific end use(s)

Applications is mentioned in item 1.2.

Other Information: Smoking and the consumption of food and drink are not permitted in work rooms. Personal protective equipment: Refer to section 8.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit: Contains no substances subject to reporting requirements

PNEC

4,4'-methylenediphenyl diisocyanate, cas-no 101-68-8

Exposure	Value	Assessment Factor	Extrapolation Method	Note
Freshwater	1 mg/l			
Marine water	0,1 mg/l			
Soil	1 mg/kg			

o-(p-isocyanatobenzyl)phenyl isocyanate, cas-no 5873-54-1

Exposure	Value	Assessment Factor	Extrapolation Method	Note
Freshwater	1 mg/l			
Marine water	0,1 mg/l			
Soil	1 mg/kg			

DNEL - workers

4,4'-methylenediphenyl diisocyanate, cas-no 101-68-8

Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Dermal	50 mg/kg bw/day	Acute / short-term exposure		Systemic effects	
Inhalation	0,1 mg/m ³	Acute / short-term exposure		Systemic effects	
Dermal	28,7 mg/cm ²	Acute / short-term exposure		Local effects	
Inhalation	0,1 mg/m ³	Acute / short-term exposure		Local effects	
Inhalation	0,05 mg/m ³	Long-term exposure		Systemic effects	
Inhalation	0,05 mg/m ³	Long-term exposure		Local effects	

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o-(p-isocyanatobenzyl) phenyl isocyanate, cas-no 5873-54-1					
Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Dermal	50 mg/kg bw/day	Acute / short-term exposure		Systemic effects	
Inhalation	0,1 mg/m3	Acute / short-term exposure		Systemic effects	
Dermal	28,7 mg/cm2	Acute / short-term exposure		Local effects	
Inhalation	0,1 mg/m3	Acute / short-term exposure		Local effects	
Inhalation	0,05 mg/m3	Long-term exposure		Systemic effects	
Inhalation	0,05 mg/m3	Long-term exposure		Local effects	

Biological threshold values: See above.

Other Information: See above.

8.2. Exposure controls

Appropriate engineering controls: All work must be planned with a view to limit the breathing of fumes and the exposure to the skin. Work under effective process ventilation (e.g., local exhaust ventilation). If this is not possible, use respiratory protection.

Personal protective equipment, eye/face protection: Use suitable protective goggles or full-face mask for protection against splashes.

Personal protective equipment, skin protection: If possible, wear special work clothes. When spraying wear coveralls.

Personal protective equipment, hand protection: Use nitrile protection gloves. A 15-mil thickness glove provides a 8 hour breakthrough-time. Follow the glove manufacturer's recommendations on use and replacement.

Personal protective equipment, respiratory protection: If application is done by scraping, brushing, there are no demands.

Environmental exposure controls: It must be ensured that local regulations for discharge are met.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Liquid
Colour	Brown
Odour	Aromatic.
Solubility	Soluble in: Organic solvents.
Explosive properties	No information available
Oxidising properties	Not applicable.

Parameter	Value/unit	Remarks
pH (solution for use)	No data	
pH (concentrate)	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	> 300 °C	
Flash Point	229 °C	
Evaporation rate	No data	
Flammability (solid, gas)	> 500 °C	

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Flammability limits	No data	
Explosion limits	No data	
Vapour pressure	No data	
Vapour density	No data	
Relative density	No data	
Partition coefficient n-octanol/water	No data	
Auto-ignition temperature	No data	
Decomposition temperature	No data	
Viscosity	145 mPas	
Odour threshold	No data	

9.2 Other information

Parameter	Value/unit	Remarks
Density	1.23 g/ml	
Fire class	III-1	
Weight % organic solvents	0	

Other Information: Solubility in water: Insoluble in water. Fat solubility: irrelevant

SECTION 10: Stability and reactivity

10.1. Reactivity

See below.

10.2. Chemical stability

Stable under recommended storage and handling conditions.
Curing time: 24 hours at 20 ° C.

10.3. Possibility of hazardous reactions

Exothermic reaction with amines and alcohols; develop CO₂ with water, building up pressure in closed containers; risk of rupture of the container.

10.4. Conditions to avoid

Stable at normal temperature. When exposed to high temperatures, toxic decomposition products may be formed.

10.5. Incompatible materials

To prevent heat-generating reactions, keep the product away from oxidizing agents and strong acidic and basic substances. Isocyanates react violently with water producing heat.

10.6. Hazardous decomposition products

The material does not decompose at ambient temperatures.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral: No information available

Acute toxicity - dermal

#Not translated#, cas-no 9016-87-9

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rabbit	LD50		> 9400mg/kg bw		OECD 402	

4,4'-methylenediphenyl diisocyanate, cas-no 101-68-8

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Marlon Marine A/S, Virkelyst 20, DK-8740 Brædstrup, www.marlon-marine.com						

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Rabbit	LD50		> 9400mg/kg bw		OECD 402	
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o-(p-isocyanatobenzyl) phenyl isocyanate, cas-no 5873-54-1

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rabbit	LD50		> 9400mg/kg bw		OECD 402	

Isocyanates may cause allergic (contact) eczema. Remove contamination immediately by skin contact.

Acute toxicity - inhalation

#Not translated#, cas-no 9016-87-9

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LC50 (dust/mist)	4 h	0.31mg/l		OECD 403	

4,4'-methylenediphenyl diisocyanate, cas-no 101-68-8

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LC50 (dust/mist)	4 h	0.368mg/l		OECD 403	

o-(p-isocyanatobenzyl) phenyl isocyanate, cas-no 5873-54-1

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LC50 LC50 (dust/mist)	4 h	0.387mg/l			

Products containing isocyanates can cause acute irritation, coughing and breathing difficulties.

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

Respiratory sensitisation or skin sensitisation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity: Would not be expected germ cell mutagen

Carcinogenic properties: Suspected of causing cancer.

Reproductive toxicity: Would not be expected to be a reproductive toxicant.

Single STOT exposure: May cause respiratory irritation.

Repeated STOT exposure: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: No hazards.

SECTION 12: Ecological information

12.1. Toxicity

#Not translated#, cas-no 9016-87-9

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Acute fish	Danio rerio	96 h	LC50	> 1000mg/l		OECD 203	
Acute daphnia	Daphnia magna	24 h	EC50	> 1000mg/l		#Not translated#	
Acute algae	Scenedesmus subspicatus	72 h		> 1640mg/l		OECD 201	

4,4'-methylenediphenyl diisocyanate, cas-no 101-68-8

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Acute Daphnia	Daphnia magna	21 d	NOEC	> 10mg/l		#Not translated#	

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12.2. Persistence and degradability

No information available

12.3. Bio accumulative potential

No information available

12.4. Mobility in soil

The product is insoluble in water and will spread out on the surface.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

No information available

Other Information

Do not dispose of this product in drains, watercourses, or on the ground.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid discharge to drain or surface water.

Product residues are classified as chemical waste.

Category of waste: Waste-code: 08 01 11

SECTION 14: Transport information

14.1. UN-No.: Not applicable.

14.2. UN proper shipping name: Not applicable.

14.3. Transport hazard class(es): Not applicable.

14.4. Packing group: Not applicable.

14.5. Environmental hazards: Not applicable.

14.6. Special precautions for user

Irrelevant.

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

Irrelevant.

SECTION 15: Regulatory information

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

Special Provisions:

Authorizations / limitations:

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

SECTION 16: Other information

Material Safety Data Sheet

Poly-Marine Component II - Hardener

Revision date: 29/09/2020
Version: 1.0

Version history and indication of changes

Version	Revision date	Responsible	Changes
2.0.0	29/09/2020	GK	1, 2, 3, 8, 9, 11, 12, 13, 15, 16
1.0.0	09/10/2013	GK	

Abbreviations: DNEL: Derived No Effect Level. PNEC: Predicted No Effect Concentration.

References to literature and data sources: REACH: REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorization and Restriction of Chemicals. CLP: REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures.

Other Information: The information in this Material Safety Data Sheet is based upon our knowledge and on European Union legislation. The user's working conditions are outside our control. It is the responsibility of the users to fulfil the requirements set by National Legislation. The information is no guarantee of the properties of the product. The Material Safety Data Sheet may only be reproduced with the permission of the manufacturer.

Training advice: The instructions in this Material Safety Data Sheet are given on the assumption that the product is used as stated in item 1. Restrictions of use and special training requirements must also be complied with. The information in this Material Safety Data Sheet should be regarded as a description of the safety issues concerning the product.

List of relevant H-statements

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

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