

Safety Data Sheet

Poly-Marine Component II 0616 98121

Replaces date: 17/09/2014

Revision date: 17/08/2015

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

1.1. Product identifier

Trade name: Poly-Marine Component II 0616 98121

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

Recommended uses: Catalyst for Poly-Marine

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: Esbjerg Farve- & Lakfabrik A/S

Address: Energivej 13

Zip code: DK-6700 Esbjerg

Country: DENMARK

E-mail: info@esbjergpaints.dk

Phone: 0045 75 12 86 00

Fax: 0045 75 45 33 68

Distributor

Company: DMS A/S

Address: Randersvej 12

Zip code: DK-6700 Esbjerg

Country: DENMARK

E-mail: dms@dms-as.com

Phone: 0045 70234343

Fax: 0045 70234342

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.

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2.2. Label elements

Pictograms



Signal word: Danger

Contains

Substance: 4,4'Methylendiphenyldiisocyanat, oligomer, Diphenylmethanediisocyanate-prepolymer

Hazard 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.

Precautionary statements

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

Supplemental information

Contains isocyanates. See information supplied by the manufacturer.

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 number	EC No	REACH Reg. No.	Concentration	Notes	CLP-classification
4,4'Methylendiphenyldiisocyanat, oligomer	25686-28-6	500-040-3	01-2119457013-49	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
Diphenylmethanediisocyanate-prepolymer	9048-57-1			25 - 50%		Skin Irrit. 2;H315 Skin Sens. 1;H317 Eye Irrit. 2;H319 Acute Tox. 4;H332 Resp. Sens. 1;H334 STOT SE 3;H335 STOT RE 2;H373

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Please see section 16 for the full text of R-phrases and 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 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 water (preferably using eye wash equipment) for at least 5 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 vapours. 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.

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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.

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

PNEC

4,4'Methylendiphenyldiisocyanat, oligomer				
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'Methylendiphenyldiisocyanat, oligomer					
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	

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Inhalation	0,05 mg/m ³	Long-term exposure		Local effects	
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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, 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, skin protection: If possible, wear special work clothes. When spraying wear coveralls.

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	Yellowish.
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	> 350 °C	
Flash Point	~ 195 °C	
Evaporation rate	No data	
Flammability (solid, gas)	> 400	
Flammability limits	No data	
Explosion limits	No data	
Vapour pressure	4 kPa	
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	230 mPas	
Odour threshold	No data	

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9.2 Other information

Parameter	Value/unit	Remarks
Density	1.21 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

4,4'-Methyldiphenyldiisocyanat, oligomer

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		> 5000mg/kg		OECD 425	

Diphenylmethanediisocyanate-prepolymer

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		> 2000mg/kg		84/449/EEC, B. 1	

No information available

Acute toxicity - dermal

4,4'-Methyldiphenyldiisocyanat, oligomer

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

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Diphenylmethanediisocyanate-prepolymer

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

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

Acute toxicity - inhalation

4,4'Methylenediphenyldiisocyanat, oligomer

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

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

Skin corrosion/irritation: Prolonged or repeated skin contact will decrease skin and may cause irritation.

Serious eye damage/eye irritation: Splashing into eyes may cause smarting/irritation.

Germ cell mutagenicity: Would not be expected germ cell mutagen

Carcinogenic properties: Carcinogenic, category 3

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

Single STOT exposure: No data.

Repeated STOT exposure: No data

SECTION 12: Ecological information

12.1. Toxicity

4,4'Methylenediphenyldiisocyanat, oligomer

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Acute algae	Scenedesmus subspicatus		ErC50	> 1640mg/l			
Acute fish	Danio rerio	96 h	LC50	> 1000mg/l		OECD 203	
Acute Daphnia	Daphnia magna	24 h	EC50	> 1000mg/l		OECD 202	

Diphenylmethanediisocyanate-prepolymer

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Acute algae	Scenedesmus subspicatus	72 h	ErC50	> 1640mg/l			
Acute Daphnia	Daphnia magna	24 h	EC50	> 1000mg/l		OECD 202	
Acute fish	Danio rerio	96 h	LC50	> 1000mg/l		OECD 203	

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Mobility in soil

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

12.5. Results of PBT and vPvB assessment

No information available

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

Product residues are classified as chemical 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 MARPOL73/78 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:

Authorisations / limitations:

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

SECTION 16: Other information

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. DPD:

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Directive of the European Parliament and of the Council concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations. 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.

Document language: GB