

FONTEDUR FL MATT HARDENER

Date 3.8.2012

Previous date: 10.11.2010

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier****1.1.1 Commercial Product Name**

FONTEDUR FL MATT HARDENER

1.1.2 Product code

008 4911

1.2 Relevant identified uses of the substance or mixture and uses advised against**1.2.1 Recommended use**

Painting work.

Description: Isocyanate hardener

Only for industrial and professional use. The product is not intended for consumer use.

1.3 Details of the supplier of the safety data sheet**1.3.1 Supplier**

Tikkurila Oyj

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P.O.Box 53

Postcode and post office

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FINLAND

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1.3.4 Responsible for the Safety Data Sheet:

Tikkurila Oyj, Product Safety, e-mail: productsafety@tikkurila.com

1.4 Emergency telephone number**1.4.1 Telephone number, name and address**

Tikkurila Oyj, Environment and Safety: +358 9 857 71 (Mon-Fri 8-16 Finnish time)

2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****67/548/EEC - 1999/45/EC**

Xn; R20-37-43

2.2 Label elements**67/548/EEC - 1999/45/EC**

Xn Harmful

R-phrases(s)

R20 Harmful by inhalation.

R37 Irritating to respiratory system.

R43 May cause sensitization by skin contact.

S-phrases(s)

S23 Do not breathe vapour/spray.

S24 Avoid contact with skin.

S37 Wear suitable gloves.

S38 In case of insufficient ventilation, wear suitable respiratory equipment.

Contains:

Contains isocyanates. See information supplied by the manufacturer.

2.3 Other hazards

Other hazards are not known.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Hazardous components**

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CAS number	EINECS	Chemical name of the substance	Concentration	Classification
28182-81-2	500-060-2	Polyisocyanate resin	50 - 80 %	Xi; R20-37-43
160994-68-3	-	Polyisocyanate resin	20 - 50 %	Xi; R20-37-43-52/53
822-06-0	212-485-8	Hexamethylene-1,6-diisocyanate (HDI)	< 0,5 %	T; R22-23-36/37/38-42/43

3.3 Other information

See Section 16 for full text of R-phrases and H-statements.

4. FIRST AID MEASURES**4.1 Description of first aid measures**

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.2 Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Seek medical attention.

4.1.3 Skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use solvents or thinners.

4.1.4 Eye contact

Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 15 minutes and seek medical advice if necessary.

4.1.5 Ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Harmful by inhalation.

Irritating to respiratory system.

May cause sensitization by skin contact.

4.3 Indication of immediate medical attention and special treatment needed

None.

5. FIREFIGHTING MEASURES**5.1 Extinguishing media****5.1.1 Suitable extinguishing media**

Recommended: Alcohol resistant foam, CO₂, powders or water spray/mist.

5.1.2 Extinguishing media which must not be used for safety reasons

Do not use strong water jets.

5.2 Special hazards arising from the substance or mixture

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required.

5.3 Advice for firefighters

Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Avoid skin contact with the product. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Do not allow to enter drains or water courses.

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6.3 Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand or vermiculite and place in a container for disposal according to local regulations. Clean preferably with a detergent; avoid the use of solvents.

6.4 Reference to other sections

See also Section 13 for waste disposal instructions.

7. HANDLING AND STORAGE**7.1 Precautions for safe handling**

Avoid skin and eye contact. Avoid inhalation of vapour and spray mist. Avoid inhalation of dust from sanding. Smoking, eating and drinking should be prohibited in application area.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated place away from sources of heat and direct sunlight. Keep away from sources of ignition. No smoking. Keep away from oxidising agents, from strongly alkaline and strongly acid materials. Keep container tightly closed.

7.3 Specific end use(s)

None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters****8.1.1 Occupational exposure limit values**

Hexamethylene-1,6-diisocyanate 0,005 ppm (8 h)
(HDI)

8.1.2 Other information on limit values

TLV = Threshold Limit Values according to ACGIH 2009 (American Conference of Governmental Industrial Hygienists)

8.2 Exposure controls**8.2.1 Appropriate engineering controls**

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

8.2.2 Individual protection measures**8.2.2.1 Respiratory protection**

Use appropriate certified respirators, with gas and vapour filter A, during sanding with dust filter P2, if ventilation is insufficient. During spray-application use respirators with gas, vapour and dust filter A/P3. During continuous and long-term work the use of motor-driven or air-fed respirators is recommended.

8.2.2.2 Hand protection

Always wear approved protective gloves against chemicals.

Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Gloves should be replaced regularly and if there is any sign of damage to the glove material. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Recommended protective glove type is e.g.: nitrile rubber (splash protection),

fluoro rubber (splash protection)

laminated foil (breakthrough time > 480 min.)

PVC or natural rubber gloves are not recommended.

8.2.2.3 Eye/face protection

Use safety eyewear designed to protect against splash of liquids.

8.2.2.4 Skin protection

Personnel should wear protective clothing.

When necessary, wear anti-static protective clothing made of natural fibre or of high temperature resistant synthetic fibre.

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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1	Important Health Safety and Environmental Information	
9.1.1	Appearance	
	Viscous liquid, strong odour	
9.1.6	Initial boiling point and boiling range	-
9.1.7	Flash point	184 °C
9.1.10	Explosive properties	
9.1.10.1	Lower explosion limit	-
9.1.10.2	Upper explosion limit	-
9.1.11	Vapour pressure	-
9.1.13	Relative density	1,2
9.1.14	Solubility(ies)	
9.1.14.1	Water solubility	Insoluble, reacts with water.
9.2	Other information	
	None.	

10. STABILITY AND REACTIVITY

10.1	Reactivity	
	See section 10.5.	
10.2	Chemical stability	
	Stable under recommended storage and handling conditions (see section 7).	
10.3	Possibility of hazardous reactions	
	See section 10.5.	
	Note! The hardener reacts with water resulting in evolution of carbon dioxide (CO ₂). The ready for use mixture of paint and hardener will form carbon dioxide which in closed containers can result in pressurisation.	
10.4	Conditions to avoid	
	If solvents are used to lower the viscosity, it should be noticed, that in confined or poorly ventilated spaces solvent vapours may form explosive mixtures with air. When exposed to high temperatures may produce hazardous decomposition products.	
10.5	Incompatible materials	
	Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.	
10.6	Hazardous decomposition products	
	Fire will produce dense black smoke. Hazardous decomposition products, such as smoke, carbon monoxide, oxides of nitrogen, hydrogen cyanide and isocyanate compounds, may be produced in a fire or when exposed to high temperatures -e.g. when welding or flame cutting a painted surface. Exposure to decomposition products may cause a health hazard.	

11. TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects	
	There are no toxicological test data available on the product itself.	
11.1.3	Sensitisation	
	Exposure by inhalation and skin contact may cause sensitization. Based on the properties of the isocyanate components and considering toxicological data on similar preparations, this preparation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.	

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11.1.8 Other information on acute toxicity

Inhalation: Long term exposure to spray mist or solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Skin contact: Repeated or prolonged contact with the preparation causes removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

Ingestion: Ingestion may cause nausea, diarrhoea and vomiting.

12. ECOLOGICAL INFORMATION**12.1 Toxicity****12.1.1 Aquatic toxicity**

Aliphatic polyisocyanate resin: LC50= 10-100 mg/l, brachydanio rerio, 96 h; harmful. EC50 >= 100 mg/l, daphnia magna, 48 h.

12.2 Persistence and degradability**12.2.1 Biodegradation**

Aliphatic polyisocyanate resin: < 60 %, 28 d; not readily degradable (OECD 301F).

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

There is no ecotoxicological test data available on the product itself. The product should not be allowed to enter drains or water courses.

The product is not classified as environmentally hazardous.

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Product residues:**

Gather residues into waste containers. Destroy according to the rules given by local authorities. EWC-code for liquid waste is e.g 08 01 11 (waste paint and varnish containing organic solvents or other dangerous substances).

Packaging waste:

Empty cans should be recycled or disposed of in accordance with local regulations.

Note! The hardener reacts with water resulting in evolution of carbon dioxide (CO₂). The ready for use mixture of paint and hardener will form carbon dioxide which in closed containers can result in pressurisation.

14. TRANSPORT INFORMATION

14.1 UN number None

14.2 UN proper shipping name None

14.3 Transport hazard class(es) Not classified

14.4 Packing group None

14.5 Environmental hazards

The product is not classified as environmentally hazardous according to international transport regulations.

14.6 Special precautions for users

None known.

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- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
None known.

15. REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
None known.
- 15.2 Chemical safety assessment**
Has not been performed.

16. OTHER INFORMATION

- 16.5 Full text of R-phrases and/or Hazard statements (H-statements) referred to under sections 2 and 3**
- | | |
|-----------|-----------------------------------------------------------------------------------------------|
| R20 | Harmful by inhalation. |
| R22 | Harmful if swallowed. |
| R23 | Toxic by inhalation. |
| R36/37/38 | Irritating to eyes, respiratory system and skin. |
| R37 | Irritating to respiratory system. |
| R42/43 | May cause sensitization by inhalation and skin contact. |
| R43 | May cause sensitization by skin contact. |
| R52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
- 16.7 Recommended restrictions**
Only for industrial and professional use. The product is not intended for consumer use.
- 16.8 Additional information**
This Safety Data Sheet is prepared in accordance with Annex II (EU) No 453/2010 to Regulation (EC) No 1907/2006 (REACH).
The information contained in this Safety Data Sheet is based on the present state of knowledge and current EU and national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.
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