

TEMAFLOOR 30/50 HARDENER

Date 29.6.2009

Previous date: 5.5.2006

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**1.1 Identification of the article****1.1.1 Commercial Product Name**
TEMAFLOOR 30/50 HARDENER**1.1.2 Product code**
008 4010**1.2 Use of the Substance/Preparation****1.2.1 Intended use**
Painting work.
Description: Hardener for epoxy paint**1.3 Identification of the company****1.3.1 Supplier**
Tikkurila Oy**1.3.2 Contact information:****P.O.Box** P.O.Box 53
Postcode and post office FI-01301 VANTAA
FINLAND
Telephone +358 9 857 71
Telefax +358 9 8577 6936**1.3.4 Responsible for the Safety Data Sheet:**

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

1.4 Emergency telephone number**1.4.1 Telephone number, name and address**
Tikkurila Oy, Environment and Safety: +358 9 857 71**2. HAZARDS IDENTIFICATION**

Flammable.
Harmful, Xn
Harmful by inhalation and in contact with skin. Irritating to skin. Risk of serious damage to eyes.
May cause sensitization by skin contact.
Information on hazard labelling in section 15.1.

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Hazardous components**

| 3.1.1 | | 3.1.2 | 3.1.3 | 3.1.4 |
|-------------------|---------------|---------------------------------------|----------------------|------------------------|
| CAS number | EINECS | Chemical name of the substance | Concentration | Classification |
| 1330-20-7 | 215-535-7 | Xylene | 20 - 50 % | Xn; R10-20/21-38 |
| 71-36-3 | 200-751-6 | n-Butanol | 10 - 20 % | Xn; R10-22-37/38-41-67 |
| 107-98-2 | 203-539-1 | 1-Methoxy-2-propanol | 10 - 20 % | -; R10 |
| 111-40-0 | 203-865-4 | Diethylene triamine | 5 - 10 % | C; R21/22-34-43 |
| 100-41-4 | 202-849-4 | Ethylbenzene | 5 - 10 % | F, Xn; R11-20 |

4. FIRST AID MEASURES**4.1 Additional advice**

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

4.2 Inhalation

Remove to fresh air, keep patient warm and at rest.

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- 4.3 Skin contact**
Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognized skin cleanser.
- 4.4 Eye contact**
Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.
- 4.5 Ingestion**
If accidentally swallowed obtain immediate medical attention. Keep at rest. DO NOT induce vomiting.

5. FIRE-FIGHTING MEASURES

- 5.1 Suitable extinguishing media**
Use foam, CO₂, powder or water spray.
- 5.2 Extinguishing media which must not be used for safety reasons**
Waterjet
- 5.3 Specific hazards**
Fire will produce dense black smoke, which contains decomposition products. Avoid breathing the smoke.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions**
Avoid breathing vapours. Exclude sources of ignition.
- 6.2 Environmental precautions**
Do not allow to enter drains or water courses.
- 6.3 Methods for 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.

7. HANDLING AND STORAGE

- 7.1 Handling**
Vapours are heavier than air and may form explosive mixtures with air. Good ventilation must be provided. Keep away from sources of ignition. Take precautionary measures against static discharges.
- 7.2 Storage**
Keep containers tightly closed. Store in a cool, dry, well ventilated place away from sources of heat and direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Exposure Limit Values**
- 8.1.1 Occupational exposure limit values**
- | | |
|----------------------|---------------|
| Xylene | 100 ppm (8 h) |
| Ethylbenzene | 100 ppm (8 h) |
| n-Butanol | 20 ppm (8 h) |
| 1-Methoxy-2-propanol | 100 ppm (8 h) |
- 8.1.2 Information on limit values**
TLV-TWA = Threshold Limit Values - Time-weighted average / ACGIH 2008
- 8.2 Exposure controls**
- 8.2.1 Occupational exposure controls**
Provide adequate ventilation. Comply with the health and safety at work laws.
- 8.2.1.1 Respiratory protection**

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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 AP. During continuous and long-term work the use of air-fed or motor-driven respirators is recommended.

8.2.1.2 Hand protection

Always wear approved protective gloves (e.g. nitrile rubber) against chemicals. Barrier creams may also help to protect the exposed areas of the skin.

8.2.1.3 Eye protection

Safety eyewear must be used, specially during the mixing of the components.

8.2.1.4 Skin and body protection

Use suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 General Information (appearance, odour)**

Viscous liquid, strong odour

9.2 Important Health Safety and Environmental Information

9.2.2 Boiling point/range 118 °C *)

9.2.3 Flash point 25 °C

9.2.5 Explosive properties

9.2.5.1 Lower explosion limit 1,4 vol-% *), 1,0 vol-% **)

9.2.5.2 Upper explosion limit 11,3 vol-% *), 7,0 vol-% **)

9.2.7 Vapour pressure 0,67 kPa (20 °C) *)

9.2.8 Relative density 0,95

9.2.9 Solubility

9.2.9.1 Water solubility Insoluble

9.3 Other data

Evaporation rate (BuAc=1) : 0,76 **)

*) = n-Butanol, **) = Xylene

10. STABILITY AND REACTIVITY**10.1 Conditions to avoid**

Solvent vapours may form explosive mixtures with air.

10.2 Materials to avoid

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.3 Hazardous decomposition products

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

11. TOXICOLOGICAL INFORMATION**11.1 Acute toxicity**

Harmful by inhalation and in contact with skin.

11.2 Primary irritation

The product contains butanol, which causes a risk of serious damage to eyes.

11.3 Sensitisation

Exposure by inhalation and skin contact may cause sensitization.

11.5 Human experience

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11.5.1 Inhalation: Solvent vapours harmful if inhaled. Long term exposure to component solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache and dizziness.

11.5.2 Skin contact: Repeated or prolonged contact with the preparation may cause removal of the natural fat from the skin resulting in contact dermatitis. Splashes in the eyes may cause irritation.

11.5.3 Other effects: Harmful if taken internally.

12. ECOLOGICAL INFORMATION**12.6 Other adverse effects**

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

13. DISPOSAL CONSIDERATIONS

13.1 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).

13.2 Packaging waste: Empty cans should be recycled or disposed of in accordance with local regulations.

14. TRANSPORT INFORMATION

| | | |
|--------|--------------------------|------------------------|
| 14.1 | UN No | 1263 |
| 14.2 | Packing group | III |
| 14.3 | Land transport | |
| 14.3.1 | ADR/RID Class | 3 |
| 14.3.3 | Description of the goods | paint related material |
| 14.4 | Sea transport | |
| 14.4.1 | IMDG Class | 3 |
| 14.4.2 | Proper shipping name | paint related material |
| 14.4.3 | Further Information | EmS: F-E,S-E |
| 14.5 | Air transport | |
| 14.5.1 | ICAO/IATA Class | 3 |
| 14.5.2 | Proper shipping name | paint related material |

15. REGULATORY INFORMATION

| | | |
|--------|---|---|
| 15.1 | Information on the warning label | |
| 15.1.1 | Letter code of the warning symbol and indications of danger for the preparation | |
| | Xn | Harmful |
| 15.1.2 | Names of the ingredients given on the warning label | |
| | Xylene | |
| | Diethylene triamine | |
| | n-Butanol | |
| 15.1.3 | R-phrase(s) | |
| | R10 | Flammable. |
| | R20/21 | Harmful by inhalation and in contact with skin. |
| | R38 | Irritating to skin. |
| | R41 | Risk of serious damage to eyes. |
| | R43 | May cause sensitization by skin contact. |

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|---------------|--------------------|---|
| 15.1.4 | S-phrase(s) | |
| | S2 | Keep out of the reach of children. |
| | S24 | Avoid contact with skin. |
| | S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| | S36/37/39 | Wear suitable protective clothing, gloves and eye/face protection. |
| | S46 | If swallowed, seek medical advice immediately and show this container or label. |
| | S51 | Use only in well-ventilated areas. |

16. OTHER INFORMATION**16.1 Full text of R-phrases referred to under sections 2 and 3**

| | |
|--------|---|
| R11 | Highly flammable. |
| R20 | Harmful by inhalation. |
| R10 | Flammable. |
| R20/21 | Harmful by inhalation and in contact with skin. |
| R38 | Irritating to skin. |
| R41 | Risk of serious damage to eyes. |
| R43 | May cause sensitization by skin contact. |
| R21/22 | Harmful in contact with skin and if swallowed. |
| R22 | Harmful if swallowed. |
| R34 | Causes burns. |
| R37/38 | Irritating to respiratory system and skin. |
| R67 | Vapours may cause drowsiness and dizziness. |

16.4 Additional information

The information of this MSDS is based on the present state of our knowledge and on current EC laws. It is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the products' properties.

Additional information available from: Tikkurila Oy, Product Safety, P.O. Box 53, FIN-01301 VANTAA, FINLAND, Telephone +358 9 857 71, Fax +358 9 8577 6936, E-mail: productsafety@tikkurila.com

Signature

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