

TEMABOND ST 200 and ST 300 HARDENER

Date 6.7.2007

Previous date: 30.9.2006

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

- 1.1 Identification of the article**
1.1.1 Commercial Product Name
 TEMABOND ST 200 and ST 300 HARDENER
- 1.1.2 Product code**
 008 7501
- 1.2 Use of the Substance/Preparation**
1.2.1 Intended use
 Painting work.
 Description: Epoxy hardener
- 1.3 Identification of the company**
1.3.1 Supplier
 Tikkurila Coatings Oy
- 1.3.2 Contact information:**
P.O.Box P.O. Box 53
Postcode and post office FI-01301 VANTAA
 FINLAND
Telephone +358 9 857 741
Telefax +358 9 8577 6911
- 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		3.1.2	3.1.3	3.1.4
	CAS number	EINECS			
	2855-13-2	220-666-8	Isophorone diamine	1 - 5 %	C; R21/22-34-43-52/53
	1330-20-7	215-535-7	Xylene	10 - 20 %	Xn; R10-20/21-38
	78-83-1	201-148-0	Iso-butanol	1 - 5 %	Xi; R10-37/38-41-67
	100-51-6	202-859-9	Benzyl alcohol	1 - 5 %	Xn; R20/22
	1477-55-0	216-032-5	M-xylylene diamine	1 - 5 %	C; R20/22-35-43-52/53
	98-54-4	202-679-0	P-tert-butyl phenol	< 1 %	Xi, N; R36/37/38-43-51/53
	111-40-0	203-865-4	Diethylene triamine	< 1 %	C; R21/22-34-43
	112-24-3	203-950-6	Triethylene tetramine	< 1 %	C; R21-34-43-52/53
	100-41-4	202-849-4	Ethylbenzene	1 - 5 %	F, Xn; R11-20

4. FIRST AID MEASURES

- 4.1 Additional advice**
 In all cases of doubt, or when symptoms persist, seek medical attention.

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- 4.2 Inhalation**
Remove to fresh air, keep patient warm and at rest.
- 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) |
| Iso-butanol | 50 ppm (8 h) |
| Ethylbenzene | 100 ppm (8 h) |
| Diethylene triamine | 1 ppm (8 h) |
- 8.1.2 Information on limit values**
TLV-TWA = Threshold Limit Values - Time-weighted average / ACGIH 2005
- 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 spray-application.

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 137 - 143 °C *)

9.2.3 Flash point 25 °C *)

9.2.5 Explosive properties

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

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

9.2.7 Vapour pressure 1,3 kPa (20 °C) *)

9.2.8 Relative density 1,46

9.2.9 Solubility

9.2.9.1 Water solubility Insoluble

9.3 Other data

Evaporation rate (BuAc=1) : 0,75 *)

*) = 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**

See section 11.5

11.2 Primary irritation

See section 11.5.

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 and spray mist 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
14.3.4	Further Information	Drums/vessels < 450 litres: not subject to ADR because of high viscosity
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 Drums/vessels < 30 litres: Transport in accordance with paragraph 2.3.2.5 of the IMDG Code.

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	
	Isophorone diamine	
	M-xylylene diamine	
15.1.3	R-phrases(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.
15.1.4	S-phrases(s)	
	S23	Do not breathe vapour/spray.

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

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

R35	Causes severe burns.
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.
R20/22	Harmful by inhalation and if swallowed.
R21	Harmful in contact with skin.
R43	May cause sensitization by skin contact.
R21/22	Harmful in contact with skin and if swallowed.
R34	Causes burns.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37/38	Irritating to respiratory system and skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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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