

**TEMABOND ST 200**

Date 11.10.2010

Previous date: 5.7.2007

**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

**1.1.2 Product code**

008 7298

**1.2 Use of the Substance/Preparation****1.2.1 Intended use**

Painting work.

Description: A two component high-solids epoxy aluminium paint, base part.

**1.3 Identification of the company****1.3.1 Supplier**

Tikkurila Oyj

**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 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

**2. HAZARDS IDENTIFICATION**

Flammable.

Irritant; Xi

Dangerous for the environment, N

May cause sensitization by skin contact. Irritating to eyes and skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information on hazard labelling in section 15.1.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Hazardous components****3.1.1****CAS number****EINECS****3.1.2****Chemical name of the substance****3.1.3****Concentration****3.1.4****Classification**

25068-38-6

500-033-5

Epoxy resin (mw &lt; 700)

25 - 50 %

Xi, N; R36/38-43-51/53

64742-82-1

265-185-4

Naphtha, hydrodesulfurized heavy

1 - 5 %

Xn, N; R10-65-66-67-51/53

1330-20-7

215-535-7

Xylene

5 - 10 %

Xn; R10-20/21-38

78-83-1

201-148-0

Isobutanol

1 - 5 %

Xi; R10-37/38-41-67

7429-90-5

231-072-3

Aluminium powder (stabilised)

5 - 10 %

F; R10-15

100-51-6

202-859-9

Benzyl alcohol

1 - 5 %

Xn; R20/22

**3.1.7 Further information**

Naphtha, hydrodesulfurized heavy: contains benzene less than 0,1 w-%.

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**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.
- 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, CO<sub>2</sub>, 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 (TLV-TWA)                        | 100 ppm (8 h)             |
| Xylene (EU)                             | 50 ppm (8 h)              |
| Isobutanol (TLV-TWA)                    | 50 ppm (8 h)              |
| Aluminium powder (stabilised) (TLV-TWA) | 1 mg/m <sup>3</sup> (8 h) |

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**8.1.2 Information on limit values**

TLV-TWA = Threshold Limit Values - Time-weighted average according to ACGIH 2009 (American Conference of Governmental Industrial Hygienists)  
EU = Occupational Exposure Limit Values according to EU Directives 1998/24/EC, 2000/39/EC, 2006/15/EC, 2009/161/EU.

**8.2 Exposure controls****8.2.1 Occupational exposure controls**

Provide adequate ventilation. Skin contact with the preparation and exposure to spray mist and vapour should be avoided, when handling products, which contain epoxy resin. Comply with the health and safety at work laws.

**8.2.1.1 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 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)**

Coloured, viscous liquid, strong odour.

**9.2 Important Health Safety and Environmental Information**

**9.2.2 Boiling point/range** 137 - 145 °C \*)

**9.2.3 Flash point** 25 °C \*)

**9.2.5 Explosive properties**

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

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

**9.2.7 Vapour pressure** 0,7 kPa (20 °C \*)

**9.2.8 Relative density** 1,47

**9.2.9 Solubility**

**9.2.9.1 Water solubility** Insoluble

**9.3 Other data**

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

\*) = 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**

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- 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. Based on the properties of the epoxy constituents and considering toxicological data on similar preparations, this preparation may be a skin and respiratory sensitizer and an irritant. It contains low molecular epoxy constituents which are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and to sensitization, possibly with cross-sensitization to other epoxies.
- 11.5 Human experience**  
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**

- 12.1 Ecotoxicity**
- 12.1.1 Aquatic toxicity**  
Epoxy resin (mw < 700): LC50 = 1,5-7,7 mg/l, onchorynchus mykiss; toxic. EC50 = 1,0 mg/l, daphnia magna; toxic. IC50 = 18 mg/l, green algae (selenastrum capricornutum), 72 h; harmful
- 12.3 Persistence and degradability**
- 12.3.1 Biodegradation**  
Epoxy resin (mw < 700): 2-3 %, 28 d, OECD 301D
- 12.4 Bioaccumulative potential**  
Epoxy resin (mw < 700): octanol/water partition coefficient log Pow = 2,8-4
- 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**

- |               |                                 |               |
|---------------|---------------------------------|---------------|
| <b>14.1</b>   | <b>UN No</b>                    | 1263          |
| <b>14.2</b>   | <b>Packing group</b>            | III           |
| <b>14.3</b>   | <b>Land transport</b>           |               |
| <b>14.3.1</b> | <b>ADR/RID Class</b>            | 3             |
| <b>14.3.3</b> | <b>Description of the goods</b> | paint         |
| <b>14.4</b>   | <b>Sea transport</b>            |               |
| <b>14.4.1</b> | <b>IMDG Class</b>               | 3             |
| <b>14.4.2</b> | <b>Proper shipping name</b>     | paint         |
|               | <b>Marine pollutant</b>         | yes           |
| <b>14.4.3</b> | <b>Further Information</b>      | EmS: F-E, S-E |

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<b>14.5</b>	<b>Air transport</b>	
<b>14.5.1</b>	<b>ICAO/IATA Class</b>	3
<b>14.5.2</b>	<b>Proper shipping name</b>	paint

**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**

Xi	Irritant
N	Dangerous for the environment

**15.1.2 Names of the ingredients given on the warning label**

Epoxy resin (mw < 700)  
Xylene

**15.1.3 R-phrases(s)**

R10	Flammable.
R36/38	Irritating to eyes and skin.
R43	May cause sensitization by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**15.1.4 S-phrases(s)**

S23	Do not breathe vapour/spray.
S24	Avoid contact with skin.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S29	Do not empty into drains.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.

**15.1.5 Special regulations on certain preparations**

Contains epoxy constituents. See information supplied by the manufacturer.

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

R10	Flammable.
R36/38	Irritating to eyes and skin.
R43	May cause sensitization by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R15	Contact with water liberates extremely flammable gases.
R20/21	Harmful by inhalation and in contact with skin.
R20/22	Harmful by inhalation and if swallowed.
R37/38	Irritating to respiratory system and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
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 Oyj, 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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