

**TEMASIL 90**

Date 17.4.2008

Previous date: 13.9.2005

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

- 1.1 Identification of the article**
- 1.1.1 Commercial Product Name**  
TEMASIL 90
- 1.1.2 Product code**  
008 7381
- 1.2 Use of the Substance/Preparation**
- 1.2.1 Intended use**  
Painting work  
Description: A two component, ethyl silicate, zinc rich 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**

Highly flammable, F  
Dangerous for the environment, N  
Contact with water liberates extremely flammable gases. Very 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		3.1.2	3.1.3	3.1.4
3.1.1	CAS number	EINECS	Chemical name of the substance	Concentration	Classification
	107-98-2	203-539-1	1-Methoxy-2-propanol	5 - 10 %	-; R10
	1330-20-7	215-535-7	Xylene	1 - 5 %	Xn; R10-20/21-38
	67-63-0	200-661-7	Isopropanol	1 - 5 %	F, Xi; R11-36-67
	7440-66-6	231-175-3	Zinc powder	70 - 90 %	N; R10-15-50/53
	7646-85-7	231-592-0	Zinc chloride	< 0,5 %	C, N; R34-50/53
	1314-13-2	215-222-5	Zinc oxide	1 - 5 %	N; R50/53
	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.

**TEMASIL 90**

Date 17.4.2008

Previous date: 13.9.2005

- 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. Note! Products containing oxidative drying oil or alkyd (linseed oil varnish, alkyd paints and -lacquers) have a possibility of auto-ignition in porous materials damped by the product. This kind of waste must be collected and stored e.g. in water before disposal or incinerated immediately.

**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**
- |                      |               |
|----------------------|---------------|
| 1-Methoxy-2-propanol | 100 ppm (8 h) |
| Xylene               | 100 ppm (8 h) |
| Isopropanol          | 200 ppm (8 h) |
| Ethylbenzene         | 100 ppm (8 h) |
- 8.1.2 Information on limit values**  
TLV-TWA = Threshold Limit Values - Time-weighted average / ACGIH 2007

**TEMASIL 90**

Date 17.4.2008

Previous date: 13.9.2005

**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**

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 protective gloves (e.g. nitrile rubber). 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**

Protective clothing must be used during spray-application.

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

Grey paste

**9.2 Important Health Safety and Environmental Information**

**9.2.2 Boiling point/range** 82 °C \*)

**9.2.3 Flash point** 12 °C \*)

**9.2.5 Explosive properties**

**9.2.5.1 Lower explosion limit** 2,0 vol-% \*)

**9.2.5.2 Upper explosion limit** 13,5 vol-% \*)

**9.2.7 Vapour pressure** 4,2 kPa (20 °C \*)

**9.2.8 Relative density** 3,09

**9.2.9 Solubility**

**9.2.9.1 Water solubility** Insoluble

**9.3 Other data**

Evaporation rate (BuAc=1) :2,2 \*)

\*) = Isopropanol

**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**

---

**TEMASIL 90**

Date 17.4.2008

Previous date: 13.9.2005

**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**

Zinc: LC50 = 0,8 mg/l, oncorhynchus mykiss, 96 h; very toxic. LC50 = 0,16 mg/l, daphnia magna, 48 h; very toxic. Zinc oxide: EC50 = 0,17 mg/l, selenastrum capricornutum, 72 h; very toxic.

Zinc chloride: LC50 (96h, fish) > 0,9 mg/l, EC50 (48h, Daphnia) = 0.21 - 1,67 mg/l, IC50 (96h, Chlorella vulgaris) = 2,4 mg/l

**12.4 Bioaccumulative potential**

Zinc chloride: BCF (fish) = 1,0 - 2,0

**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	II
14.3	Land transport	
14.3.1	ADR/RID Class	3
14.3.3	Description of the goods	paint
14.4	Sea transport	
14.4.1	IMDG Class	3
14.4.2	Proper shipping name	paint
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

**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**

F	Highly flammable
N	Dangerous for the environment

**TEMASIL 90**

Date 17.4.2008

Previous date: 13.9.2005

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

Isopropanol

Zinc powder

**15.1.3 R-phrase(s)**

R11

Highly flammable.

R15

Contact with water liberates extremely flammable gases.

R50/53

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**15.1.4 S-phrase(s)**

S16

Keep away from sources of ignition - No smoking.

S23

Do not breathe vapour/spray.

S29

Do not empty into drains.

S33

Take precautionary measures against static discharges.

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**

R20

Harmful by inhalation.

R11

Highly flammable.

R15

Contact with water liberates extremely flammable gases.

R50/53

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R10

Flammable.

R20/21

Harmful by inhalation and in contact with skin.

R34

Causes burns.

R36

Irritating to eyes.

R38

Irritating to 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](mailto:productsafety@tikkurila.com)

**Signature**

a/ome