SAFETY DATA SHEET
FONTECOAT EP 80

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Product name : FONTECOAT EP 80
Product description : A two-component waterborne epoxy paint.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Recommended use: Painting work
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
Manufacturer or Distributor
Tikkurila Oyj
P.O. Box 53
FI-01301 VANTAA
FINLAND
Telephone +358 20 191 2000

Supplier or Manufacturer
Tikkurila Oyj
Telephone +358 20 191 2000 (GMT +2) Mon-Fri 8-16

e-mail address of person responsible for this SDS : Tikkurila Oyj,
Product Safety,
e-mail: productsafety@tikkurila.com

1.4 Emergency telephone number
Telephone number : 112
(24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Product definition : Mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Skin Irrit. 2, H315
Eye Irrit. 2, H319
Skin Sens. 1, H317
Aquatic Chronic 3, H412
The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

2.2 Label elements
Hazard pictograms :

Signal word : Warning
Hazard statements :
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements

General : Not applicable.
Prevention :
- P261 - Avoid breathing mist/vapors/spray.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/clothing and eye/face protection.
- P284 - In case of inadequate ventilation wear respiratory protection.
Response :
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
- P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes.
Storage : Not applicable.
Disposal : Not applicable.
Hazardous ingredients : isophorone diamine
Supplemental label elements : Contains small amounts of sensitizing substances: m-phenylenebis(methylamine) elements

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic polyamine adduct</td>
<td>CAS: 160192-66-5</td>
<td>≤10</td>
<td>Aquatic Chronic 2, H411</td>
<td>-</td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>REACH #: 01-2119457435-35</td>
<td>≤5</td>
<td>Flam. Liq. 3, H226</td>
<td>-</td>
</tr>
<tr>
<td>EC: 203-539-1</td>
<td>STOT SE 3, H336</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 107-98-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index: 803-064-00-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-hydroxy-4-methylpentan-2-one</td>
<td>REACH #: 01-2119473975-21</td>
<td>≤5</td>
<td>Flam. Liq. 3, H226</td>
<td>-</td>
</tr>
<tr>
<td>EC: 204-626-7</td>
<td>Eye Irrit. 2, H319</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 123-42-2</td>
<td>STOT SE 3, H335</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isophorone diamine</td>
<td>REACH #: 01-2119514687-32</td>
<td>&lt;3</td>
<td>Acute Tox. 4, H302</td>
<td>-</td>
</tr>
<tr>
<td>EC: 220-666-8</td>
<td>Acute Tox. 4, H312</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 2855-13-2</td>
<td>Skin Corr. 1B, H314</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index: 612-067-00-9</td>
<td>Skin Sens. 1, H317</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m-phenylenebis(methylamine)</td>
<td>REACH #: 01-2119480150-50</td>
<td>&lt;1</td>
<td>Aquatic Chronic 3, H412</td>
<td>-</td>
</tr>
<tr>
<td>EC: 216-032-5</td>
<td>See Section 16 for the full text of the H statements declared above</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1477-55-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Notes, if applicable, refer to Notes given in Annex VI of 1272/2008/EC.
SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Show this safety data sheet or label to the doctor if possible.

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of lukewarm water, keeping eyelids open. Continue to rinse for at least 15 minutes. Get medical attention if symptoms occur.

Inhalation : Remove to fresh air. Keep person warm and at rest.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. Get medical attention if symptoms occur.

Ingestion : If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Remove to fresh air and keep at rest in a position comfortable for breathing. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire. Recommended: Alcohol resistant foam, CO₂, powders or water spray/mist.

Unsuitable extinguishing media : Do not use a direct water jet that could spread the fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : This product is not classified as flammable. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

When exposed to high temperatures, hazardous decomposition products may be produced, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

5.3 Advice for firefighters
Special protective actions for fire-fighters : Use water spray to keep fire-exposed containers cool. This material is hazardous to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures : Provide adequate ventilation. Avoid breathing vapor or mist. Avoid direct skin contact with product. See Section 8 for information on appropriate personal protective equipment.

6.2 Environmental precautions : Hazardous to aquatic environment. Do not allow to enter drains, water courses or soil.
6.3 Methods and materials for containment and cleaning up: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Preferably clean with water or detergent. Avoid using solvents.

6.4 Reference to other sections: See Section 1 for emergency contact information. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Skin contact with the product and exposure to spray mist and vapor should be avoided. Avoid inhalation of dust from sanding. See Section 8 for information on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled and stored. Wash hands before breaks and immediately after handling the product. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities: Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep container tightly closed. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Recommended storage temperature is +5°C ...+25°C. Do not allow to freeze. Store in accordance with local regulations.

7.3 Specific end use(s): None.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-methoxy-2-propanol</td>
<td>EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values</td>
</tr>
<tr>
<td></td>
<td>TWA: 100 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 375 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 150 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>STEL: 568 mg/m³ 15 minutes.</td>
</tr>
</tbody>
</table>

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

DNELs/DMELs
No DNELs/DMELs available.

PNECs
No PNECs available.

8.2 Exposure controls

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 vapours below the OEL, suitable respiratory protection must be worn (see Personal protection for both components). Comply with the health and safety at work laws.

Individual protection measures

Eye/face protection: Use safety eyewear (EN166), especially during spray-application.
Hand protection: Always wear approved protective gloves against chemicals. 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 glove material (EN374):
- < 1 hour (breakthrough time): nitrile rubber, butyl rubber
- > 8 hours (breakthrough time): laminated foil
Not recommended: PVC or natural rubber (latex) gloves

Skin protection: Wear suitable protective clothing.

Respiratory protection: If ventilation during spray-application is inadequate, use respirators with combination filter AP, gas/dust filter (EN405:2001). Wear a half mask or full face respirator with gas and vapor filter A and dust filter P2 during sanding (EN140:1998, EN405:2001). During continuous and long-term work the use of motor-driven or air-fed respirators is recommended (EN12941:1998). Be sure to use an approved/certified respirator or equivalent. Check that mask fits tightly and change filter regularly.

Environmental exposure controls: For information regarding environmental protection measures, please refer to section 13 for waste handling, section 7 for handling and storage and section 1.2 for relevant identified uses of the substance or mixture and uses advised against.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
- Physical state: Liquid.
- Color: Coloured
- Odor: Mild.
- Odor threshold: Not relevant for the hazard assessment of the product.
- pH: Not relevant for the hazard assessment of the product.
- Melting point/freezing point: Not available.
- Initial boiling point and boiling range: Not available.
- Flash point: >100 °C
- Evaporation rate: Not available.
- Flammability (solid, gas): Not applicable. Product is a liquid.
- Upper/lower flammability or explosive limits: Not available.
- Vapor pressure: Not available.
- Vapor density: Not available.
- Density: 1.6 to 1.7 g/cm³
- Solubility(ies): Miscible in water.
- Partition coefficient: n-octanol/water: Not available.
- Auto-ignition temperature: Not available.
- Decomposition temperature: Not relevant for the hazard assessment of the product.
- Viscosity: Not relevant for the hazard assessment of the product.
- Explosive properties: No explosive ingredients present.
- Oxidizing properties: No oxidizing ingredients present.

9.2 Other information
No additional information.
SECTION 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 : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Avoid extreme heat and freezing.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong acids, strong alkalis.

10.6 Hazardous decomposition products : When exposed to high temperatures, hazardous decomposition products may be produced, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
There is no test data available on the product itself. The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended. Long term exposure to spray mist may produce respiratory tract irritation. Repeated or prolonged skin contact may lead to allergic contact dermatitis.

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>isophorone diamine</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1030 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>m-phenylenebis(methylamine)</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>2.4 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>930 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Not classified.

Irritation/Corrosion
Causes skin irritation. Causes serious eye irritation.

Sensitization
May cause an allergic skin reaction.
Contains small amounts of sensitizing substances: m-phenylenebis(methylamine)

Mutagenicity
Not classified.
Carcinogenicity
Not classified.
Reproductive toxicity
Not classified.
Teratogenicity
Not classified.
Specific target organ toxicity (single exposure)
Not classified.
Specific target organ toxicity (repeated exposure)
Not classified.
Aspiration hazard
Not classified.
SECTION 12: Ecological information

Ecological testing has not been conducted on this product. Do not allow to enter drains, water courses or soil.

The product is classified as environmentally hazardous according to Regulation (EC) 1272/2008. Harmful to aquatic life with long lasting effects.

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-phenylenebis (methylamine)</td>
<td>Acute EC50 12 mg/l</td>
<td>Algae - Scenedesmus</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 15.2 mg/l</td>
<td>subspicatus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute LC50 75 mg/l</td>
<td>Daphnia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 4.7 mg/l</td>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Daphnia</td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

No specific data.

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>Bioconcentration factor [BCF]</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-phenylenebis (methylamine)</td>
<td>0.18</td>
<td>2.69</td>
<td>low</td>
</tr>
<tr>
<td>isophorone diamine</td>
<td>0.99</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>4-hydroxy-4-methylpentan-2-one</td>
<td>-0.14 to 1.03</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>&lt;1</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>): Not available.

Mobility: Not available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product methods of disposal: Gather residues into waste containers. Liquid residue and cleaning liquids are hazardous waste and must not be emptied into drains or sewage system, but handled in accordance with national regulations. Product residues should be left at special companies which have permission for gathering this kind of wastes.

European waste catalogue (EWC)

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>08 01 11*</td>
<td>waste paint and varnish containing organic solvents or other hazardous substances</td>
</tr>
</tbody>
</table>
If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

Packaging

Methods of disposal: Empty packaging should be recycled or disposed of in accordance with national regulations.

Special precautions: No additional information.

SECTION 14: Transport information

This product is not regulated for carriage according to ADR/RID, IMDG, IATA.

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
</table>

| 14.2 UN proper shipping name | - | - | - |
| 14.3 Transport hazard class(es) | - | - | - |
| 14.4 Packing group | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. |

**14.6 Special precautions for user**: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**: Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Other EU regulations

Europe inventory: Not determined.

VOC Directive: This product is in scope of Directive 2004/42/CE.

15.2 Chemical Safety Assessment: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms:

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

Version: 2
Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

**Classification** | **Justification**
---|---
Skin Irrit. 2, H315  | Calculation method
Eye Irrit. 2, H319  | Calculation method
Skin Sens. 1, H317  | Calculation method
Aquatic Chronic 3, H412 | Calculation method

**Full text of abbreviated H statements**
- H226: Flammable liquid and vapor.
- H302: Harmful if swallowed.
- H312: Harmful in contact with skin.
- H314: Causes severe skin burns and eye damage.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H332: Harmful if inhaled.
- H335: May cause respiratory irritation.
- H336: May cause drowsiness or dizziness.
- H411: Toxic to aquatic life with long lasting effects.
- H412: Harmful to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]**
- Acute Tox. 4, H302: ACUTE TOXICITY (oral) - Category 4
- Acute Tox. 4, H312: ACUTE TOXICITY (dermal) - Category 4
- Acute Tox. 4, H332: ACUTE TOXICITY (inhalation) - Category 4
- Aquatic Chronic 2, H411: AQUATIC HAZARD (LONG-TERM) - Category 2
- Aquatic Chronic 3, H412: AQUATIC HAZARD (LONG-TERM) - Category 3
- Eye Irrit. 2, H319: SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
- Flam. Liq. 3, H226: FLAMMABLE LIQUIDS - Category 3
- Skin Corr. 1B, H314: SKIN CORROSION/IRRITATION - Category 1B
- Skin Irrit. 2, H315: SKIN CORROSION/IRRITATION - Category 2
- Skin Sens. 1, H317: SKIN SENSITIZATION - Category 1
- STOT SE 3, H335: SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
- STOT SE 3, H336: SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

**Date of issue/Date of revision**
- 04.12.2017
- 12/4/2017

**Date of previous issue**
- 21.04.2015
- 4/21/2015

**Version**
- 2

**Notice to reader**
This Safety Data Sheet is prepared in accordance with Annex II (EU) No 830/2015 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.