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

1.1 Product identifier

Product name: FONTECOAT FD 20
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

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

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]
Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

2.2 Label elements

Hazard pictograms:

Signal word: No signal word.
Hazard statements: H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements
General: Not applicable.
Prevention: P273 - Avoid release to the environment.
Response: Not applicable.
Storage: Not applicable.
Disposal: Not applicable.

Supplemental label elements:
- Contains isophorone diamine and m-phenylenebis(methylamine). May produce an allergic reaction.
- Wear protective gloves.

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

<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>trizinc bis(orthophosphate)</td>
<td>REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6</td>
<td>≤5</td>
<td>Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)</td>
<td>-</td>
</tr>
<tr>
<td>1-methoxy-2-propanol</td>
<td>REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3</td>
<td>≤5</td>
<td>Flam. Liq. 3, H226 STOT SE 3, H336</td>
<td>-</td>
</tr>
<tr>
<td>isophorone diamine</td>
<td>REACH #: 01-2119514687-32 EC: 220-666-8 CAS: 2655-13-2 Index: 612-067-00-9</td>
<td>&lt;1</td>
<td>Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above.</td>
<td>-</td>
</tr>
<tr>
<td>m-phenylenebis(methylamine)</td>
<td>REACH #: 01-2119480150-50 EC: 216-032-5 CAS: 1477-55-0</td>
<td>&lt;1</td>
<td>Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412</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.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

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 10 minutes.

Inhalation:
Remove to fresh air.

Skin contact:
Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion:
If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious). If significant amounts have been swallowed or if symptoms persist, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed
See Section 11 for more detailed information on health effects and symptoms.

Contains:
m-phenylenebis(methylamine)
isophorone diamine
May produce an allergic reaction.

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

Hazards from the substance or mixture: This product is not classified as flammable. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous combustion products: 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: Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Refer to protective measures listed in sections 7 and 8.

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>

Recommended monitoring procedures:
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. 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:
Safety eyewear should be used when there is a likelihood of exposure. Use safety eyewear (EN166), especially during spray-application.

Hand protection:
Wear protective gloves. 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):
> 8 hours (breakthrough time): nitrile rubber
Not recommended: PVA gloves

Skin protection:
Wear appropriate personal protective clothing to prevent skin contact.

Respiratory protection:
If ventilation during spray-application is inadequate, use respirators with combination filter AP, gas/dust filter (EN405:2001). Wear a respirator with type P2 filter during sanding (EN149:2001). 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: -96°C (1-methoxy-2-propanol)
- Initial boiling point and boiling range: 120,17°C (1-methoxy-2-propanol)
- Flash point: >100 °C
- Evaporation rate: 0,814 (butyl acetate = 1) (1-methoxy-2-propanol)
- Flammability (solid, gas): Not applicable. Product is a liquid.
- Upper/lower flammability or explosive limits
  - Lower: 1,48% (1-methoxy-2-propanol)
  - Upper: 13,74% (1-methoxy-2-propanol)
- Vapor pressure: 1,1 kPa [room temperature] (1-methoxy-2-propanol)
- Vapor density: 3,11 (1-methoxy-2-propanol)
- Density: 1,7 g/cm³
- Solubility(ies): Miscible in water.
- Partition coefficient: n-octanol/water: Not available.
- Auto-ignition temperature: 270°C (1-methoxy-2-propanol)
- 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 testdata available on the product itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Long term exposure to spray mist may produce respiratory tract irritation. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or 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
Not classified.

Sensitization
Contains small amounts of sensitizing substances:
m-phenylenebis(methylamine)
isophorone diamine

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 environmetally hazardous according to Regulation (EC) 1272/2008. Toxic 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>trizinc bis(orthophosphate)</td>
<td>Acute EC50 0,8 mg/l</td>
<td>Algae</td>
<td>72 hours</td>
</tr>
<tr>
<td>m-phenylenebis (methylamine)</td>
<td>Acute EC50 12 mg/l</td>
<td>Algae - Scenedesmus subspicatus</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 15,2 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 75 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 4,7 mg/l</td>
<td>Daphnia</td>
<td>21 days</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_{ow}</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>1-methoxy-2-propanol</td>
<td>&lt;1</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>trizinc bis(orthophosphate)</td>
<td>-</td>
<td>60960</td>
<td>high</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

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>
<tr>
<td>08 01 12</td>
<td>waste paint and varnish other than those mentioned in 08 01 11</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 disposed of in accordance with national regulations.

Special precautions: No additional information.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (trizinc bis (orthophosphate))</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (trizinc bis (orthophosphate))</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (trizinc bis (orthophosphate))</td>
</tr>
</tbody>
</table>

Version: 1.02
This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**14.5 Environmental hazards**

**Additional information**

This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

- **Tunnel code** (E)
- **Emergency schedules (EmS)**
  - F-A, S-F

**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

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

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Chronic 2, H411</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>
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.