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

1.1 Product identifier
- Product name: LUMINOL 25
- Product code: 157-s
- Product description: A UV curing waterborne 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
- e-mail address of person responsible for this SDS: productsafety@tikkurila.com

1.4 Emergency telephone number
- Telephone number: 112 (24h)
- Supplier or Manufacturer
  - Telephone number: Tikkurila Oyj
  - +358 20 191 2000 Mon-Fri 8-16

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 Sens. 1, H317
- 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: H317 - May cause an allergic skin reaction.
- Precautionary statements
  - General: Not applicable.
  - Prevention: P261 - Avoid breathing mist/spray.
  - P280 - Wear protective gloves.
  - P284 - In case of inadequate ventilation wear respiratory protection.
### 3.2 Mixtures

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>urethane acrylate</td>
<td>-</td>
<td>≥10 - ≤17</td>
<td>Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td>urethane acrylate</td>
<td>-</td>
<td>≤7,1</td>
<td>Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td>phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide</td>
<td>EC: 423-340-5 CAS: 162881-26-7</td>
<td>≤0,3</td>
<td>Skin Sens. 1A, H317 Aquatic Chronic 4, H413</td>
</tr>
<tr>
<td>reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)</td>
<td>CAS: 55965-84-9</td>
<td>&lt;0.0015</td>
<td>Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above.</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 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

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.

5.3 Advice for firefighters

Special protective actions for fire-fighters: Use water spray to keep fire-exposed containers cool. Do not release runoff from fire to drains or watercourses.

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: 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.
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.

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>triethylamine</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: 2 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 8,4 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 3 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>STEL: 12,6 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. 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 vapors below the OEL, suitable respiratory protection must be worn (see Personal protection). 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):
> 8 hours (breakthrough time): nitrile rubber
Not recommended: PVA gloves

Skin protection: Wear suitable protective clothing.
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Coloured</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not relevant for the hazard assessment of the product.</td>
</tr>
<tr>
<td>pH</td>
<td>Not relevant for the hazard assessment of the product.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;100 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable. Product is a liquid.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available</td>
</tr>
<tr>
<td>Density</td>
<td>1,1 to 1,3 g/cm³</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Miscible in water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not relevant for the hazard assessment of the product.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not relevant for the hazard assessment of the product.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No explosive ingredients present.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No oxidizing ingredients present.</td>
</tr>
</tbody>
</table>

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>See Section 10.5.</td>
</tr>
</tbody>
</table>

10.2 Chemical stability

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stable under recommended storage and handling conditions (see Section 7).</td>
</tr>
</tbody>
</table>

10.3 Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
</tbody>
</table>

10.4 Conditions to avoid

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid extreme heat and freezing.</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents strong acids strong alkalis</td>
</tr>
</tbody>
</table>
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. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

11.1 Information on toxicological effects

There is no testdata available on the product itself.

<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>triethylamine</td>
<td>LD50 Oral, Rat</td>
<td>460 mg/kg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)</td>
<td>LD50 Oral, Rat</td>
<td>53 mg/kg</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Not classified.

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>triethylamine</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>365 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

Not classified.

Sensitization

May cause an allergic skin reaction.

Contains following preservatives or other biocides:
1,2-benzisothiazol-3(2H)-one
mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)

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 not classified as environmentally hazardous according to Regulation (EC) 1272/2008.

12.1 Toxicity
**12.2 Persistence and degradability**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

**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>phenyl bis(2,4, 6-trimethylbenzoyl)-phosphine oxide</td>
<td>5.77</td>
<td>&lt;5</td>
<td>low</td>
</tr>
<tr>
<td>triethylamine</td>
<td>1.45</td>
<td>&lt;0.5</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)**
Waste code | Waste designation
---|---
08 01 11* | waste paint and varnish containing organic solvents or other hazardous substances
08 01 12 | waste paint and varnish other than those mentioned in 08 01 11

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>

<table>
<thead>
<tr>
<th>14.2 UN proper shipping name</th>
<th>-</th>
<th>-</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Additional information</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**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.

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>Skin Sens. 1, H317</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

### Full text of abbreviated H statements
- **H225**: Highly flammable liquid and vapor.
- **H301**: Toxic if swallowed.
- **H302**: Harmful if swallowed.
- **H311**: Toxic in contact with skin.
- **H314**: Causes severe skin burns and eye damage.
- **H317**: May cause an allergic skin reaction.
- **H331**: Toxic if inhaled.
- **H335**: May cause respiratory irritation.
- **H400**: Very toxic to aquatic life.
- **H410**: Very toxic to aquatic life with long lasting effects.
- **H412**: Harmful to aquatic life with long lasting effects.
- **H413**: May cause long lasting harmful effects to aquatic life.

### Full text of classifications [CLP/GHS]
- **Acute Tox. 3, H301**: ACUTE TOXICITY (oral) - Category 3
- **Acute Tox. 3, H311**: ACUTE TOXICITY (dermal) - Category 3
- **Acute Tox. 3, H331**: ACUTE TOXICITY (inhalation) - Category 3
- **Acute Tox. 4, H302**: ACUTE TOXICITY (oral) - Category 4
- **Aquatic Acute 1, H400**: AQUATIC HAZARD (ACUTE) - Category 1
- **Aquatic Chronic 1, H410**: AQUATIC HAZARD (LONG-TERM) - Category 1
- **Aquatic Chronic 3, H412**: AQUATIC HAZARD (LONG-TERM) - Category 3
- **Aquatic Chronic 4, H413**: AQUATIC HAZARD (LONG-TERM) - Category 4
- **Flam. Liq. 2, H225**: FLAMMABLE LIQUIDS - Category 2
- **Skin Corr. 1A, H314**: SKIN CORROSION/IRRITATION - Category 1A
- **Skin Corr. 1B, H314**: SKIN CORROSION/IRRITATION - Category 1B
- **Skin Sens. 1, H317**: SKIN SENSITIZATION - Category 1
- **Skin Sens. 1A, H317**: SKIN SENSITIZATION - Category 1A
- **STOT SE 3, H335**: SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

### Notice to reader
This Safety Data Sheet is prepared in accordance with Annex II 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.