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

1.1 Product identifier
Product name: AKVILAC WF 10
Product description: A waterborne lacquer.

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: Tikkurila Oyj, Product Safety, e-mail: productsafety@tikkurila.com

1.4 Emergency telephone number
Telephone number: 112 (24h)
Supplier or Manufacturer
Telephone number: Tikkurila Oyj
+358 20 191 2000 (GMT +2) 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]
The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

2.2 Label elements
Signal word: No signal word.
Hazard statements: No hazard statements.
Precautionary statements
General: Not applicable.
Prevention: Not applicable.
Response: Not applicable.
Storage: Not applicable.
Disposal: Not applicable.
Supplemental label elements: Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol, 1,2-benzisothiazol-3(2H)-one (BIT) and 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) (C(M)IT/MIT (3:1)). May produce an allergic reaction. Safety data sheet available on request. Wear protective gloves.
Treated articles
This product contains a biocidal product for the preservation of the product during storage. Contains C(M)IT/MIT (3:1).

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>2-(2-butoxyethoxy)ethanol</td>
<td>REACH #: 01-2119475104-44 EC: 203-961-6 CAS: 112-34-5 Index: 603-096-00-8</td>
<td>≤3</td>
<td>Eye Irrit. 2, H319</td>
<td>-</td>
</tr>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>REACH #: 01-2119475527-28 EC: 225-878-4 CAS: 5131-66-8 Index: 603-052-00-8</td>
<td>≤3</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2, H319</td>
<td>-</td>
</tr>
<tr>
<td>(2-methoxymethylethoxy)propanol</td>
<td>REACH #: 01-2119450011-60 EC: 252-104-2 CAS: 34590-94-8</td>
<td>≤3</td>
<td>Not classiﬁed.</td>
<td>-</td>
</tr>
<tr>
<td>2,4,7,9-tetramethyldec-5-ynediol</td>
<td>REACH #: 01-2119954390-39 EC: 204-809-1 CAS: 126-86-3</td>
<td>≤0.3</td>
<td>Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412</td>
<td>-</td>
</tr>
<tr>
<td>1,2-benzisothiazol-3(2H)-one (BIT)</td>
<td>EC: 220-120-9 CAS: 2634-33-5</td>
<td>&lt;0.05</td>
<td>Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H412</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) (C(M)IT/MIT (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)</td>
<td>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.

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:
1,2-benzisothiazol-3(2H)-one (BIT)
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) (C(M)IT/MIT (3:1))
2,4,7,9-tetramethyldec-5-ync-4,7-diol
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. Do not release runoff from fire to drains or watercourses.
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:
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.

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

Occupational exposure limits

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
</table>
| 2-(2-but oxyethoxy)ethanol | EU OEL (Europe, 12/2017). Notes: list of indicative occupational exposure limit values  
TWA: 67.5 mg/m³ 8 hours.  
TWA: 10 ppm 8 hours.  
STEL: 101.2 mg/m³ 15 minutes.  
STEL: 15 ppm 15 minutes. |
| (2-methoxymethylethoxy)propanol | EU OEL (Europe, 12/2017). Absorbed through skin. Notes: list of indicative occupational exposure limit values  
TWA: 50 ppm 8 hours.  
TWA: 308 mg/m³ 8 hours. |

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. 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
- Physical state: Liquid.
- Color: Clear.
- 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: 1.05 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 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>1,2-benzisothiazol-3(2H)-one (BIT)</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1020 mg/kg</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) (C(M)IT/MIT (3:1))</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>53 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Not classified.

Irritation/Corrosion
Not classified.

Sensitization

The product is not classified as sensitizing by skin contact, but it contains following preservatives or other biocides which may produce an allergic reaction:
1,2-benzisothiazol-3(2H)-one (BIT)
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) (C(M)IT/MIT (3:1))
2-methyl-2H-isothiazol-3-one (MIT)
Contains small amounts of sensitizing substances:
2,4,7,9-tetramethyldec-5-ynyl-4,7-diol

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
<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,7,9-tetramethyldec-5-yne-4,7-diol</td>
<td>EC50 82 mg/l</td>
<td>Algae - Selenastrum capricornutum</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>EC50 91 mg/l</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td>1,2-benzisothiazol-3(2H)-one (BIT)</td>
<td>Acute EC50 0.36 mg/l</td>
<td>Algae - Skeletonema costatum</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 0.74 mg/l</td>
<td>Fish</td>
<td>96 hours</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) (C(M)IT/MIT (3:1))</td>
<td>Acute EC50 0.379 mg/l</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 0.16 mg/l</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 0.19 mg/l</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.0012 mg/l</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.004 mg/l</td>
<td>Daphnia - Daphnia magna</td>
<td>21 days</td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>-</td>
<td>92 % - 28 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<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) (C(M)IT/MIT (3:1))</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogPdW</th>
<th>Bioconcentration factor [BCF]</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2-methoxymethyleneethoxy) propanol</td>
<td>0.004</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>1.2</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>1</td>
<td>&lt;3</td>
<td>low</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil

- **Soil/water partition coefficient (KOC)**: Not available.
- **Mobility**: Not available.

### 12.5 Results of PBT and vPvB assessment
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 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 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></th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<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>
</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.
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

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]

Classification Justification
Not classified.

Full text of abbreviated H statements
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
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. 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 2, H411 AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3, H412 AQUATIC HAZARD (LONG-TERM) - Category 3
Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
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
Skin Sens. 1B, H317 SKIN SENSITIZATION - Category 1B

Date of issue/ Date of revision : 11/23/2018
Date of previous issue : No previous validation
Version : 1
Notice to reader

Version : 1
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.