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

1.1 Product identifier
Product name : MAALIPESU
Product description : Detergent.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Recommended use: Cleaning

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: productssafety@tikkurila.com

1.4 Emergency telephone number
Supplier or Manufacturer
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 Corr. 1, H314
The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

2.2 Label elements
Hazard pictograms :

Signal word : Danger
Hazard statements : H314 - Causes severe skin burns and eye damage.
Precautionary statements General : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.

Response: P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or physician.

Storage: Not applicable.
Disposal: Not applicable.

Hazardous ingredients: potassium hydroxide sodium metasilicate pentahydrate

Supplemental label elements: Not applicable.

EU Detergents Regulation: less than 5%: anionic surfactants, phosphates, BENZISOTHIAZOLINONE.

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>≥25 - ≤50</td>
<td>Eye Irrit. 2, H319</td>
<td>-</td>
</tr>
<tr>
<td>sodium metasilicate pentahydrate</td>
<td>EC: 229-912-9 CAS: 10213-79-3 Index: 014-010-00-8</td>
<td>≤5</td>
<td>Skin Corr. 1B, H314 STOT SE 3, H335</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 20 minutes. Get medical attention immediately. Continue rinsing until medical attention can be obtained.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention.

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. In case of chemical burns, get medical attention as soon as possible.

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 severe skin burns and eye damage. 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

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: 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. Do not breathe vapor or mist. Do not get in eyes or on skin. Put on appropriate personal protective equipment (see Section 8).

6.2 Environmental precautions: Undiluted product is not allowed to enter drains or watercourses.
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: Avoid contact with skin and eyes. Avoid breathing vapor. Avoid inhalation of dust from sanding. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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 in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. 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>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>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.</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). Provide a readily-accessible eyewash facility. Comply with the health and safety at work laws.

Individual protection measures
Eye/face protection: Wear eye/face protection (EN166).
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.

Respiratory protection  
If ventilation is inadequate, use respirator that will protect against dust/mist. 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.

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  
13.8 (ready-for-use mixture ≈ 12.5)

Melting point/freezing point  
< -70°C (2-(2-butoxyethoxy)ethanol)

Initial boiling point and boiling range  
225 to 227.6°C (2-(2-butoxyethoxy)ethanol)

Flash point  
> 100 °C

Evaporation rate  
0.003 (butyl acetate = 1) (2-(2-butoxyethoxy)ethanol)

Flammability (solid, gas)  
Not applicable. Product is a liquid.

Upper/lower flammability or explosive limits  
Lower: 0.8% (2-(2-butoxyethoxy)ethanol)  
Upper: 9.4% (2-(2-butoxyethoxy)ethanol)

Vapor pressure  
21 kPa [room temperature] (2-(2-butoxyethoxy)ethanol)

Vapor density  
5.6 (2-(2-butoxyethoxy)ethanol)

Density  
1 g/cm³

Solubility(ies)  
Miscible in water.

Partition coefficient: n-octanol/water  
Not available.

Auto-ignition temperature  
210°C (2-(2-butoxyethoxy)ethanol)

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: acids

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 classified as hazardous according to Regulation (EC) 1272/2008 as amended. Long term exposure causes irritation of respiratory system and mucous membranes of nose and throat. Prolonged contact can cause severe irritation or even burns. The liquid splashed in the eyes may cause irreversible damage.

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>potassium hydroxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>333 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Not classified.

Irritation/Corrosion
Causes severe skin burns and eye damage.

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)

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 undiluted product to enter drains, water courses or soil.

The product is not classified as environmentally hazardous according to Regulation (EC) 1272/2008. The surfactants contained in this mixture comply with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

12.1 Toxicity
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-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>(2-butoxyethoxy)ethanol</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

Biodegradability report: Not available.

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>Alcohols, C12-14, ethoxylated, sulfates, sodium salts</td>
<td>0.3</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>polyphosphoric acids, sodium salts</td>
<td>-</td>
<td>1.5</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 (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: Remove as much product as possible from the tools before cleaning. Undiluted 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)
**SECTION 14: Transport information**

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>14.1 UN number</strong></td>
<td>UN1719</td>
<td>UN1719</td>
</tr>
<tr>
<td><strong>14.2 UN proper shipping name</strong></td>
<td>CAUSTIC ALKALI LIQUID, N.O.S. (potassium hydroxide)</td>
<td>CAUSTIC ALKALI LIQUID, N.O.S. (potassium hydroxide)</td>
</tr>
<tr>
<td><strong>14.3 Transport hazard class(es)</strong></td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>14.4 Packing group</strong></td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td><strong>14.5 Environmental hazards</strong></td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

**Additional information**

ADR/RID: **Hazard identification number** 80  
Limited quantity: 5 L.  
Special provisions: 274  
Tunnel code: (E)

IMDG: **Emergency schedules** F-A, S-B  
Special provisions: 223, 274

IATA: **Quantity limitation**  
Cargo Aircraft Only: 60 L.. Packaging instructions: 856. Limited Quantities -  
Special provisions: A3, A803

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: All components are listed or exempted.

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  
DNEF = 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 Corr. 1, H314</td>
<td>On basis of test data</td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements

| H290   | May be corrosive to metals. |
| H302   | Harmful if swallowed.       |
| H314   | Causes severe skin burns and eye damage. |
| H319   | Causes serious eye irritation. |
| H335   | May cause respiratory irritation. |

Full text of classifications [CLP/GHS]

| Acute Tox. 4, H302 | ACUTE TOXICITY (oral) - Category 4 |
| Eye Irrit. 2, H319 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 |
| Met. Corr. 1, H290 | CORROSIVE TO METALS - Category 1 |
| Skin Corr. 1, H314 | SKIN CORROSION/IRRITATION - Category 1 |
| Skin Corr. 1A, H314 | SKIN CORROSION/IRRITATION - Category 1A |
| Skin Corr. 1B, H314 | SKIN CORROSION/IRRITATION - Category 1B |
| STOT SE 3, H335   | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |

Date of issue/ Date of revision  : 11/5/2018
Date of previous issue  : 7/7/2017
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.