

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

- **1.1 Product identifier**
- **Trade name:** Muki WBA
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** Coating
- **Application of the substance / the mixture**
 Water borne acrylic primer
 Uses in Coatings - Industrial use
 Uses in Coatings - Professional use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Nor-Maali Oy
 Vanhatie 20, 15240 Lahti, FINLAND
- **Further information obtainable from:** MSDS (Nor-Maali Oy) tel.+358 3 874 650, sds@nor-maali.fi
- **1.4 Emergency telephone number:** Contact National Poison Center

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**

 Product definition: mixture
- **Classification according to Regulation (EC) No 1272/2008**
 Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
 The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements**
 H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
 P273 Avoid release to the environment.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 7779-90-0 EINECS: 231-944-3 Reg.nr.: 01-2119485044-40-	trizinc bis(orthophosphate) Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≤ 1.8%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25-	propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	1 - 2.5%
CAS: 111-76-2 EINECS: 203-905-0 Reg.nr.: 01-2119475108-36-	2-butoxyethanol Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319 ATE: LD50 oral: 1,200 mg/kg	0.1 - 1%
CAS: 107-21-1 EINECS: 203-473-3 Reg.nr.: 01-2119456816-28-xxxx	ethanediol Acute Tox. 4, H302	< 1%

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CAS: 1314-13-2 EINECS: 215-222-5 Reg.nr.: 01-2119463881-32-	zinc oxide Aquatic Acute 1, H400; Aquatic Chronic 1, H410	< 0.7%
CAS: 1336-21-6 EINECS: 215-647-6 Reg.nr.: 01-2119982985-14-	ammonia Skin Corr. 1B, H314; Aquatic Acute 1, H400 Specific concentration limit: STOT SE 3; H335: C ≥ 5 %	< 0.2%
CAS: 60580-61-2 EINECS: 262-309-9 Reg.nr.: 01-2120768444-47-	Zinc 5-nitroisophthalate Aquatic Acute 1, H400; Aquatic Chronic 2, H411	< 0.2%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Never give anything by mouth or induce vomiting to an unconscious person or a person who has convulsions.
- **After inhalation:**
Remove person to fresh air, keep patient warm and at rest. If breathing is irregular, call national emergency number, if needed start giving artificial respiration and seek medical advice.
- **After skin contact:**
Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- **After eye contact:**
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.
- **After swallowing:**
If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.
- **Information for doctor:** Treatment according to symptoms.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
Evacuate people from danger area and deny access to area. Remove containers from danger area and try to cool containers which cannot be removed safely. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- **Protective equipment:** Compressed air respirator and protective clothing.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:**
Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.
- **6.3 Methods and material for containment and cleaning up:**
Absorb liquid components with liquid-binding material (sand, peat or other absorbent material). Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
 Handling must be organised so that skin contact with the product and splashes to eyes can be avoided.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 The product must be stored in a dry, well ventilated, cool (temperature > +5°C) space. Must be transported and stored free from frost. Containers must be kept tightly closed and away from foodstuff.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

67-63-0 propan-2-ol

HTP	Short-term value: 620 mg/m ³ , 250 ppm Long-term value: 500 mg/m ³ , 200 ppm
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111-76-2 2-butoxyethanol

HTP	Short-term value: 250 mg/m ³ , 50 ppm Long-term value: 98 mg/m ³ , 20 ppm Sk, BMGV
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107-21-1 ethanediol

HTP	Short-term value: 100 mg/m ³ , 40 ppm Long-term value: 50 mg/m ³ , 20 ppm sk
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1336-21-6 ammonia

HTP	Short-term value: 36 mg/m ³ , 50 ppm Long-term value: 14 mg/m ³ , 20 ppm
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· **DNELs**

7779-90-0 trizinc bis(orthophosphate)

Dermal	DNEL	83 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	5 mg/m ³ (Workers - Long-term systemic effects)

67-63-0 propan-2-ol

Dermal	DNEL	888 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	500 mg/m ³ (Workers - Long-term systemic effects)

111-76-2 2-butoxyethanol

Oral	DNEL	1,091 mg/kg bw/day (Workers - acute systemic effects)
Dermal	DNEL	98 mg/kg bw/day (Workers - Long-term systemic effects)

107-21-1 ethanediol

Dermal	DNEL	106 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	35 mg/m ³ (Workers - Long-term local effects)

1314-13-2 zinc oxide

Dermal	DNEL	83 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	5 mg/m ³ (Workers - Long-term systemic effects)

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· PNECs	
7779-90-0 trizinc bis(orthophosphate)	
PNEC	117.8 mg/kg dwt (Fresh water sediment) 56.5 mg/kg dwt (Marine water sediment) 35.6 mg/kg dwt (Soil)
PNEC	20 µg/L (Freshwater) 6.1 µg/L (Marine water) 100 µg/L (Sewage treatment)
67-63-0 propan-2-ol	
PNEC	140.9 mg/L (Freshwater) 140.9 mg/L (Marine water) 2,251 mg/L (Sewage treatment)
PNEC	552 mg/kg dwt (Fresh water sediment) 552 mg/kg dwt (Marine water sediment)
PNEC	160 mg/kg (Secondary Poisoning) 28 mg/kg (Soil)
111-76-2 2-butoxyethanol	
PNEC	8.8 mg/L (Freshwater) 0.88 mg/L (Marine water) 463 mg/L (Sewage treatment)
PNEC	34.6 mg/kg dwt (Fresh water sediment) 3.46 mg/kg dwt (Marine water sediment)
PNEC	20 mg/kg (Secondary Poisoning) 2.33 mg/kg (Soil)
107-21-1 ethanediol	
PNEC	10 mg/L (Freshwater) 1 mg/L (Marine water) 199.5 mg/L (Sewage treatment)
PNEC	37 mg/kg dwt (Fresh water sediment) 3.7 mg/kg dwt (Marine water sediment)
PNEC	1.53 mg/kg (Soil)
1314-13-2 zinc oxide	
PNEC	117.8 mg/kg dwt (Fresh water sediment) 56.5 mg/kg dwt (Marine water sediment)
PNEC	35.6 mg/kg (Soil)
PNEC	20.6 µg/L (Freshwater) 6.1 µg/L (Marine water) 100 µg/L (Sewage treatment)
60580-61-2 Zinc 5-nitroisophthalate	
PNEC	117.8 - 462 mg/kg dwt (Fresh water sediment) 56.5 - 221 mg/kg dwt (Marine water sediment)
PNEC	35.6 - 139.6 mg/kg (Soil)
PNEC	20.6 - 80.8 µg/L (Freshwater) 6.1 - 23.9 µg/L (Marine water) 100 - 392.2 µg/L (Sewage treatment)

· **Additional information:**

The information is based on the valid lists at the time of manufacture (Finland 654/2020).

· **8.2 Exposure controls**

· **Appropriate engineering controls** No further data; see item 7.

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Safety data sheet

(EC) 1907/2006 (REACH), Annex II, as amended by Regulation (EU) 2021/848

Date of revision: 05.05.2022
Date of previous issue: 22.10.2019
Version number 5 (replaces version 4)

Trade name: Muki WBA

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· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

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 HTP, suitable respiratory protection must be worn.

· **Respiratory protection:**

If ventilation is insufficient or if workers are exposed to concentrations above the exposure limit they must use half- or full mask with gas filter A (brown, organic substances), and when grinding P2 (Iib) -type dust filter. Mask with combined filter (gas & dust) A2-P2 must be used when spraying. In the continuous long-term work it is recommended to use motored air protector or separative protector (fresh air hood or compressed air hood or such).

· **Hand protection**



Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Wear suitable gloves tested to EN374.

May be used, gloves(breakthrough time) 4 - 8 hours: butyl rubber, nitrile rubber

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

The eye flushing device should be located near the the paint work area.

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· Colour:	Colourful
· Odour:	Mild
· Odour threshold:	Not determined.
· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	100 °C (7732-18-5 water, distilled, conductivity or of similar purity)
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	1 vol-%
· Upper:	11 vol-%
· Flash point:	Not applicable.
· Decomposition temperature:	Not determined.
· pH	9-10
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.

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Safety data sheet

(EC) 1907/2006 (REACH), Annex II, as amended by Regulation (EU) 2021/848

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· Density and/or relative density	
· Density at 20 °C:	1.2 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
9.2 Other information	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Change in condition	
· Evaporation rate	Not determined.
Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No specific test data related to reactivity available for this product or its ingredients.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

7779-90-0 trizinc bis(orthophosphate)		
Oral	LD50	> 5,000 mg/kg (rat)
67-63-0 propan-2-ol		
Oral	LD50	5,840 mg/kg (rat)

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111-76-2 2-butoxyethanol		
Oral	LD50	1,200 mg/kg (ATE) 1,480 mg/kg (rat)
Dermal	LD50	435 mg/kg (rabbit)
107-21-1 ethanediol		
Oral	LD50	7,212 mg/kg (rat)
Dermal	LD50	3,500 mg/kg (mouse)
1314-13-2 zinc oxide		
Oral	LD50	> 5,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)
Inhalative	LC50/4 h	5,700 mg/l (rat)
60580-61-2 Zinc 5-nitroisophthalate		
Oral	LD50	4,640 - 10,000 mg/kg (rat)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

95-14-7 benzotriazole

List II

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

7779-90-0 trizinc bis(orthophosphate)	
48-h EC50	> 2.34 mg/L (Daphnia magna)
96-h LC50	0.112 - 2.92 mg/L (Fish)
72-h IC50	0.136 - 0.15 mg/L (Algae)
67-63-0 propan-2-ol	
96-h LC50	9,640 - 10,000 mg/L (Fish)
24-h EC50	10,000 mg/L (Daphnia magna)
111-76-2 2-butoxyethanol	
72-h EC50	623 mg/L (Algae) (OECD TG 201)
48-h EC50	1,550 - 1,800 mg/L (Daphnia magna) (OECD TG 202)
96-h LC50	1,474 mg/L (Fish) (OECD TG 203)
107-21-1 ethanediol	
48-h EC50	100 mg/L (Daphnia magna)
96-h LC50	72.86 mg/L (Fish)
NOEC (72 h)	100 mg/l (Algae)
1314-13-2 zinc oxide	
96-h EC50	0.3 - 1.94 mg/L (Algae)
48-h EC50	155 - 100,000 ppm (Daphnia magna)
96-h LC50	112 - 8,062 ppm (Fish)
60580-61-2 Zinc 5-nitroisophthalate	
48-h EC50	0.155 - 2.909 mg/L (Daphnia magna)

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96-h LC50	0,112 - 4,189.8 mg/L (Fish)
96-h EC50	1,448 mg/L (Algae)

- **12.2 Persistence and degradability**
 Biodegradability:
 Trizinc bis(orthophosphate): not readily
 2-butoxyethanol: 90 % (aerobic; activated sludge; exposure time: 28 days) (OECD 301 B); easily degrading
 zinc oxide: not readily
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Remark:** Harmful to fish

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

· **European waste catalogue**

08 01 15*	aqueous sludges containing paint or varnish containing organic solvents or other hazardous substances
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- **Uncleaned packaging:**
- **Recommendation:**
 Empty, dry paint containers (hole made to the bottom) should be taken to collection centres for metallic paint packages. If this collecting/recycling centre doesn't exist, containers can be taken to a local dump pit. For more information contact your local waste disposal authorities or paint deliverer.

SECTION 14: Transport information

· 14.1 UN number or ID number · ADR, IMDG, IATA	Not dangerous goods
· 14.2 UN proper shipping name · ADR, IMDG, IATA	Not dangerous goods
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Not dangerous goods
· 14.4 Packing group · ADR, IMDG, IATA	Not dangerous goods
· 14.5 Environmental hazards: · Marine pollutant:	Yes
· 14.6 Special precautions for user	Do not freeze. Warm transport.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· UN "Model Regulation":	Not dangerous goods

Trade name: Muki WBA

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SECTION 15: Regulatory information

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

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- H225 Highly flammable liquid and vapour.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- 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.

· **Contact:** Nor-Maali Oy, tel. +358 3 874 650 or sds@nor-maali.fi

· **Date of previous version:** 22.10.2019

· **Version number of previous version:** 4

· **Abbreviations and acronyms:**

- Flam. Liq. 2: Flammable liquids – Category 2
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**