

**Safety data sheet**  
according to 2020/878/EC

Printing date 06.07.2023

Version number 1

Revision: 06.07.2023

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

- **1.1 Product identifier**
- Trade name: **PRIMUS 2.0**
- UFI: 1T86-C0R4-400J-KA55
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- Life cycle stages
  - PW Widespread use by professional workers
  - C Consumer use
- Sector of Use
  - SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
  - SU21 Consumer uses: Private households / general public / consumers
- Product category PC35 Washing and cleaning products (including solvent based products)
- Application of the substance / the mixture Exterior vehicle cleaner
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
  - MA-FRA S.p.A. a Socio Unico
  - Via Aquileia, 44/46
  - 20021 Baranzate (MI) ITALIA
  - Tel. +39 023569981
  - [www.mafra.com](http://www.mafra.com)
  - [mafra@mafra.it](mailto:mafra@mafra.it)
- Informing department: [info@mafra.it](mailto:info@mafra.it)
- **1.4 Emergency telephone number:** In case of accident call the emergency number 112

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- Classification according to Regulation (EC) No 1272/2008



corrosion

- Skin Corr. 1A H314 Causes severe skin burns and eye damage.
- Eye Dam. 1 H318 Causes serious eye damage.

- **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



GHS05

- Signal word **Danger**
- Hazard-determining components of labelling:
  - 1-hydroxy ethylidene-1,1diphosphonic acid
  - tetrasodium ethylenediaminetetraacetate
- Hazard statements
  - H314 Causes severe skin burns and eye damage.

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**- Precautionary statements**

- P102 Keep out of reach of children.  
 P280 Wear protective gloves / eye protection / face protection.  
 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.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulation

**- 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**- Dangerous components:**

CAS: 9004-82-4	Sodium Laureth Sulphate Eye Dam. 1, H318;  Skin Irrit. 2, H315 Specific concentration limits: Eye Dam. 1; H318: $C \geq 10\%$ Eye Irrit. 2; H319: $5\% \leq C < 10\%$	3-5%
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	1-<3%
CAS: 2809-21-4 EINECS: 220-552-8 Reg.nr.: 01-2119510391-53	1-hydroxy ethylidene-1,1diphosphonic acid Met. Corr. 1, H290; Eye Dam. 1, H318;  Acute Tox. 4, H302	1-<3%
CAS: 78330-20-8 EC number: 616-607-4	Ethoxy Alcohol C9-C11 Eye Dam. 1, H318;  Acute Tox. 4, H302	1-<3%
CAS: 64-02-8 EINECS: 200-573-9 Reg.nr.: 01-2119486762-27	tetrasodium ethylenediaminetetraacetate STOT RE 2, H373;  Eye Dam. 1, H318;  Acute Tox. 4, H302; Acute Tox. 4, H332	1-<3%
CAS: 10213-79-3 EINECS: 229-912-9 Reg.nr.: 01-2119449811-37	Sodium metasilicate, pentahydrate Met. Corr. 1, H290; Skin Corr. 1B, H314;  STOT SE 3, H335	1-<3%
CAS: 1310-73-2 EINECS: 215-185-5 Reg.nr.: 01-2119457892-27	sodium hydroxide Met. Corr. 1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318 Specific concentration limits: Skin Corr. 1A; H314: $C \geq 5\%$ Skin Corr. 1B; H314: $2\% \leq C < 5\%$ Skin Irrit. 2; H315: $0.5\% \leq C < 2\%$ Eye Irrit. 2; H319: $0.5\% \leq C < 2\%$	1-<3%
CAS: 1310-58-3 EINECS: 215-181-3 Reg.nr.: 01-2119487136-33	potassium hydroxide Met. Corr. 1, H290; Skin Corr. 1A, H314;  Acute Tox. 4, H302 Specific concentration limits: Skin Corr. 1A; H314: $C \geq 5\%$ Skin Corr. 1B; H314: $2\% \leq C < 5\%$ Skin Irrit. 2; H315: $0.5\% \leq C < 2\%$ Eye Irrit. 2; H319: $0.5\% \leq C < 2\%$	<1%

**- Regulation (EC) No 648/2004**

anionic surfactants, phosphonates, non-ionic surfactants, EDTA and salts thereof, cationic surfactants, perfumes &lt;5%

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- **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

Instantly remove any clothing soiled by the product.

No special measures required.

##### - After inhalation

In case of unconsciousness bring patient into stable side position for transport.

Supply fresh air; consult doctor in case of symptoms.

##### - After skin contact

Instantly wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

##### - After eye contact

Rinse opened eye for several minutes under running water. Then consult doctor.

Use eye protection.

##### - After swallowing

Do not induce vomiting; instantly call for medical help.

Drink copious amounts of water and provide fresh air. Instantly call for doctor.

#### - 4.2 Most important symptoms and effects, both acute and delayed

Sickness

No further relevant information available.

#### - 4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation

Medical supervision for at least 48 hours

### SECTION 5: Firefighting measures

#### - 5.1 Extinguishing media

##### - Suitable extinguishing agents

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Use fire fighting measures that suit the environment.

#### - 5.2 Special hazards arising from the substance or mixture

Can be released in case of fire

Carbon monoxide (CO)

#### - 5.3 Advice for firefighters

##### - Protective equipment:

Do not inhale explosion gases or combustion gases.

Protection means for respiratory tract

##### - Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### SECTION 6: Accidental release measures

#### - 6.1 Personal precautions, protective equipment and emergency procedures

Product forms slippery surface when combined with water.

Particular danger of slipping on leaked/spilled product.

Protective gloves. (EN 374)

##### - For non-emergency personnel

Ensure adequate ventilation

Keep away from ignition sources

Wear protective clothing.

##### - For emergency responders

Recommended thickness of the material:  $\geq 0.1$  mm

Nitrile rubber, NBR

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**- 6.2 Environmental precautions:**

Inform respective authorities in case product reaches water or sewage system.

Dilute with much water.

Do not allow to enter drainage system, surface or ground water.

**- 6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose of the material collected according to regulations.

**- 6.4 Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

### SECTION 7: Handling and storage

**- 7.1 Precautions for safe handling**

Take off immediately all contaminated clothing

Wash hands during breaks and at the end of the work.

Do not eat, drink or smoke while working.

**- Information about protection against explosions and fires:** Protect from heat.

**- 7.2 Conditions for safe storage, including any incompatibilities****- Storage**

**- Requirements to be met by storerooms and containers:** Store only in the original container.

**- Information about storage in one common storage facility:** Do not store together with acids.

**- Further information about storage conditions:** Keep container tightly sealed.

**- Class according to regulation on inflammable liquids:** Void

**- 7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

**- 8.1 Control parameters**

**- Components with limit values that require monitoring at the workplace:**

**111-76-2 2-butoxyethanol**

WEL Short-term value: 246 mg/m<sup>3</sup>, 50 ppm

Long-term value: 123 mg/m<sup>3</sup>, 25 ppm

Sk, BMGV

**1310-58-3 potassium hydroxide**

WEL Short-term value: 2 mg/m<sup>3</sup>

**- DNELs****9004-82-4 Sodium Laureth Sulphate**

Oral Systemic Long-term Effects 15 mg/Kg bw/day (Consumers)

Dermal Systemic long-term effects 2,750 mg/Kg bw/day (Industrial Workers)

1,650 mg/Kg bw/day (Consumers)

Inhalative Systemic long-term effects 175 mg/m<sup>3</sup> (Industrial Workers)

52 mg/m<sup>3</sup> (Consumers)

**111-76-2 2-butoxyethanol**

Oral Systemic Long-term Effects 6.3 mg/Kg bw/day (Consumers)

Systemic short-term effects 26.7 mg/m<sup>3</sup> (Consumers)

Dermal Systemic long-term effects 125 mg/Kg bw/day (Industrial Workers)

75 mg/Kg bw/day (Consumers)

Systemic Short-term Effects 89 mg/Kg bw/day (Industrial Workers)

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Inhalative	Local long-term effects	89 mg/Kg bw/day (Consumers)
		67.5 mg/m <sup>3</sup> (Industrial Workers)
	Local short-term effects	40.5 mg/m <sup>3</sup> (Consumers)
		246 mg/m <sup>3</sup> (Industrial Workers)
	Systemic long-term effects	147 mg/m <sup>3</sup> (Consumers)
Systemic Short-term Effects	98 mg/m <sup>3</sup> (Industrial Workers)	
		59 mg/m <sup>3</sup> (Consumers)
		1,091 mg/m <sup>3</sup> (Industrial Workers)
		426 mg/m <sup>3</sup> (Consumers)
<b>2809-21-4 1-hydroxy ethylidene-1,1diphosphonic acid</b>		
Oral	Systemic Long-term Effects	13 mg/Kg bw/day (Consumers)
	Systemic short-term effects	13 mg/m <sup>3</sup> (Industrial Workers)
Dermal	Systemic long-term effects	6.5 mg/m <sup>3</sup> (Consumers)
		13 mg/Kg bw/day (Industrial Workers)
<b>64-02-8 tetrasodium ethylenediaminetetraacetate</b>		
Oral	Systemic Long-term Effects	25 mg/Kg bw/day (Consumers)
Inhalative	Local long-term effects	1.5 mg/m <sup>3</sup> (Industrial Workers)
		0.6 mg/m <sup>3</sup> (Consumers)
	Local short-term effects	3 mg/m <sup>3</sup> (Industrial Workers)
		1.2 mg/m <sup>3</sup> (Consumers)
	Systemic long-term effects	1.5 mg/m <sup>3</sup> (Industrial Workers)
		0.6 mg/m <sup>3</sup> (Consumers)
	Systemic Short-term Effects	2.5 mg/m <sup>3</sup> (Industrial Workers)
		1.5 mg/m <sup>3</sup> (Consumers)
<b>10213-79-3 Sodium metasilicate, pentahydrate</b>		
Oral	Systemic Long-term Effects	0.74 mg/Kg bw/day (Consumers)
Dermal	Systemic long-term effects	1.49 mg/Kg bw/day (Industrial Workers)
		0.74 mg/Kg bw/day (Consumers)
Inhalative	Systemic long-term effects	6.22 mg/m <sup>3</sup> (Industrial Workers)
		1.55 mg/m <sup>3</sup> (Consumers)
<b>1310-73-2 sodium hydroxide</b>		
Inhalative	Local long-term effects	1 mg/m <sup>3</sup> (Industrial Workers)
		1 mg/m <sup>3</sup> (Consumers)
	Local short-term effects	1 mg/m <sup>3</sup> (Industrial Workers)
		1 mg/m <sup>3</sup> (Consumers)
<b>1310-58-3 potassium hydroxide</b>		
Inhalative	Local long-term effects	1 mg/m <sup>3</sup> (Industrial Workers)
		1 mg/m <sup>3</sup> (Consumers)
	Systemic long-term effects	1 mg/m <sup>3</sup> (Industrial Workers)
		1 mg/m <sup>3</sup> (Consumers)
<b>308062-28-4 Amines oxide</b>		
Oral	Systemic Long-term Effects	0.44 mg/Kg bw/day (Consumers)
Dermal	Systemic long-term effects	11 mg/Kg bw/day (Industrial Workers)
		5.5 mg/Kg bw/day (Consumers)
Inhalative	Systemic long-term effects	6.2 mg/m <sup>3</sup> (Industrial Workers)
		1.53 mg/m <sup>3</sup> (Consumers)

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**- PNECs****9004-82-4 Sodium Laureth Sulphate**

PNEC STP	10,000 mg/L (STP)
Soil	7.5 mg/Kg (Soil)
Soft Water	0.24 mg/L (Water)
Sea water	0.024 mg/L (Water)
Sediment (soft water)	0.917 mg/Kg (Soil)
Sediment (sea water)	0.092 mg/Kg (Soil)

**111-76-2 2-butoxyethanol**

PNEC STP	463 mg/L (STP)
Soil	2.33 mg/Kg (Soil)
Soft Water	8.8 mg/L (Water)
Sea water	0.88 mg/L (Water)
Sediment (soft water)	34.6 mg/Kg (Soil)
Sediment (sea water)	3.46 mg/Kg (Soil)
Occasional Emission	26.4 mg/L (Water)

**2809-21-4 1-hydroxy ethylidene-1,1diphosphonic acid**

PNEC STP	20 mg/L (STP)
Soil	96 mg/Kg (Soil)
Soft Water	0.136 mg/L (Water)
Sea water	0.0136 mg/L (Water)
Sediment (soft water)	59 mg/Kg (Soil)
Sediment (sea water)	5.9 mg/Kg (Soil)

**64-02-8 tetrasodium ethylenediaminetetraacetate**

PNEC STP	43 mg/L (STP)
Soil	0.72 mg/Kg (Soil)
Soft Water	2.2 mg/L (Water)
Sea water	0.22 mg/L (Water)
Occasional Emission	1.2 mg/L (Water)

**10213-79-3 Sodium metasilicate, pentahydrate**

PNEC STP	1,000 mg/L (STP)
Soft Water	7.5 mg/L (Water)
Sea water	1 mg/L (Water)

**308062-28-4 Amines oxide**

PNEC STP	24 mg/L (STP)
Soil	1.02 mg/Kg (Soil)
Soft Water	0.0335 mg/L (Water)
Sea water	0.00335 mg/L (Water)
Sediment (soft water)	5.24 mg/Kg (Soil)
Sediment (sea water)	0.524 mg/Kg (Soil)

**- Ingredients with biological limit values:****111-76-2 2-butoxyethanol**

BMGV	240 mmol/mol creatinine
	Medium: urine
	Sampling time: post shift
	Parameter: butoxyacetic acid

**- Additional information:** The lists that were valid during the compilation were used as basis.

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- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and food.  
Take off immediately all contaminated clothing  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Hand protection**



Protective gloves. (EN 374)

Alkaline resistant gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
Recommended thickness of the material:  $\geq 0.1$  mm  
Nitrile rubber, NBR
- **Penetration time of glove material**  
For the mixture of chemicals mentioned below the penetration time has to be at least 15 minutes (Permeation according to EN 16523-1:2015: Level 1).
- **Eye/face protection**



Tightly sealed safety glasses.

- **Body protection:** Alkaline resistant protective clothing
- **Environmental exposure controls**  
Dispose of packaging according to regulations on the disposal of packagings.  
Disposal must be made according to official regulations.

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Physical state** Fluid
- **Colour:** Light yellow
- **Odour:** Pleasant
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** Not determined
- **Boiling point or initial boiling point and boiling range**  $>100$  °C
- **Flammability** Not applicable.
- **Lower and upper explosion limit**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Flash point:** Not applicable
- **Decomposition temperature:** Not determined.
- **pH at 20 °C**  $>12$
- **Viscosity:**
- **Kinematic viscosity** Not determined.
- **dynamic:** Not determined.
- **Solubility**
- **Water:** Fully miscible

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- Partition coefficient n-octanol/water (log value)	Not determined.
- Vapour pressure:	Not determined.
- Density and/or relative density	
- Density at 20 °C	1.08 g/cm <sup>3</sup>
- Relative density	Not determined.
- Vapour density	Not determined.

<b>- 9.2 Other information</b>	
- Appearance:	
- Form:	Fluid
<b>- Important information on protection of health and environment, and on safety.</b>	
- Self-inflammability:	Product is not selfigniting.
- Explosive properties:	Product is not explosive.
- Change in condition	
- Evaporation rate	Not determined.

<b>- Information with regard to physical hazard classes</b>	
- 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 Stable under normal conditions
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions Reacts with acids
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: Reacts with strong acids
- 10.6 Hazardous decomposition products: No dangerous decomposition products known

### 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 that are relevant for classification:

9004-82-4 Sodium Laureth Sulphate

Oral	LD50	>2,000 mg/Kg (Rat)
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<b>111-76-2 2-butoxyethanol</b>		
Oral	LD50	1,200 mg/Kg (ATE) >2,000 mg/Kg (Rabbit) 1,746 mg/Kg (Rat)
Dermal	LD50	>2,000 mg/Kg (Rat)
<b>78330-20-8 Ethoxy Alcohol C9-C11</b>		
Oral	LD50	300-2,000 mg/Kg (Rat)
<b>64-02-8 tetrasodium ethylenediaminetetraacetate</b>		
Oral	LD50	1,780 mg/Kg (Rat)
<b>10213-79-3 Sodium metasilicate, pentahydrate</b>		
Oral	LD50	1,152-1,349 mg/Kg (Rat)
	NOAEL	260 mg/Kg (Mouse) 227 mg/Kg (Rat)
Dermal	LD50	>5,000 mg/Kg (Rat)
Inhalative	LC50	>2.06 mg/L (Rat)
<b>1310-73-2 sodium hydroxide</b>		
Oral	LD50	2,000 mg/Kg (Rat)
<b>68439-46-3 Ethoxy Alcohol C9-C11</b>		
Oral	LD50	>2,000 mg/Kg (Rat)
Dermal	LD50	>2,000 mg/Kg (Rabbit)
<b>1554325-20-0 Quaternary C12-14 alkyl methyl amine ethoxylate methyl chloride</b>		
Oral	LD50	833 mg/Kg (Rat)
<b>68439-46-3 Ethoxy Alcohol C9-C11</b>		
Oral	LD50	4,600 mg/Kg (Rat)
Dermal	LD50	>2,000 mg/Kg (Rat)
<b>308062-28-4 Amines oxide</b>		
Oral	LD50	mg/Kg (Rat)
	NOAEL	88 mg/Kg (Rat)
Dermal	LD50	>2,000 mg/Kg (Rat)

- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
- **Serious eye damage/irritation** Causes serious eye damage.
- **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.

### SECTION 12: Ecological information

#### - 12.1 Toxicity

##### - Aquatic toxicity:

#### 9004-82-4 Sodium Laureth Sulphate

LC50 (96h)	>1 mg/L (Fish)
EC50 (48h)	7.2 mg/L (Daphnia)
EC50 (72h)	7.5 mg/L (Algae)

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<b>111-76-2 2-butoxyethanol</b>	
LC50 (96h)	1,474 mg/L (Fish)
EC50 (48h)	1,550 mg/L (Daphnia)
EC50 (72h)	911 mg/L (Algae)
<b>2809-21-4 1-hydroxy ethylidene-1,1diphosphonic acid</b>	
LC50 (96h)	195 mg/L (Fish)
EC50 (48h)	527 mg/L (Daphnia)
EC50 (96h)	7.2 mg/L (Algae)
<b>78330-20-8 Ethoxy Alcohol C9-C11</b>	
LC50 (96h)	>100 mg/L (Fish)
EC50 (48h)	>100 mg/L (Daphnia)
EC50 (72h)	>100 mg/L (Algae)
<b>64-02-8 tetrasodium ethylenediaminetetraacetate</b>	
LC50 (96h)	>100 mg/L (Fish)
EC50 (48h)	140 mg/L (Daphnia)
EC50 (72h)	>100 mg/L (Algae)
<b>10213-79-3 Sodium metasilicate, pentahydrate</b>	
LC50 (96h)	210 mg/L (Fish)
EC50 (48h)	1,700 mg/L (Daphnia)
<b>1310-73-2 sodium hydroxide</b>	
LC50 (96h)	45 mg/L (Fish)
EC50 (48h)	40.4 mg/L (Daphnia)
LC50 (48h)	189 mg/L (Fish)
<b>68439-46-3 Ethoxy Alcohol C9-C11</b>	
LC50 (96h)	>1-10 mg/L (Fish)
EC50 (48h)	>1-10 mg/L (Daphnia)
EC50 (72h)	>1-10 mg/L (Algae)
<b>1310-58-3 potassium hydroxide</b>	
LC50 (96h)	80 mg/L (Fish)
<b>1554325-20-0 Quaternary C12-14 alkyl methyl amine ethoxylate methyl chloride</b>	
LC50 (96h)	>10-100 mg/L (Fish)
EC50 (48h)	>1-10 mg/L (Daphnia)
EC50 (72h)	>1-10 mg/L (Algae)
<b>68439-46-3 Ethoxy Alcohol C9-C11</b>	
EC50 (48h)	1.1-10 mg/L (Daphnia)
EC50 (72h)	1-10 mg/L (Algae)
LC50 (48h)	>10-<100 mg/L (Daphnia)
<b>308062-28-4 Amines oxide</b>	
LC50 (96h)	2.67 mg/L (Fish)
EC50 (48h)	0.266 mg/L (Algae)
	3.1 mg/L (Daphnia)
EC50 (96h)	2.67 mg/L (Fish)
EC50 (72h)	0.143 mg/L (Algae)

- **12.2 Persistence and degradability** The contained surfactants are easily biodegradable

- **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.

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- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
  - Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
  - Do not allow product to reach ground water, water bodies or sewage system.
  - Must not reach sewage water or drainage ditch undiluted or unneutralised.
  - Danger to drinking water if even small quantities leak into soil.
  - The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
  - Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
  - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:**
  - Dispose of packaging according to regulations on the disposal of packagings.
  - Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |   |  |
|---|--|
| - <b>14.1 UN number or ID number</b><br>- <b>ADR, IMDG, IATA</b>  | UN1719   |
| - <b>14.2 UN proper shipping name</b><br>- <b>ADR, IMDG, IATA</b>   | CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, 1-hydroxy ethylidene-1,1diphosphonic acid)                                  |
| - <b>14.3 Transport hazard class(es)</b><br>- <b>ADR, IMDG, IATA</b>  | <div style="text-align: center;">  </div> |
| - <b>Class</b><br>- <b>Label</b>  | 8 Corrosive substances.<br>8   |
| - <b>14.4 Packing group</b><br>- <b>ADR, IMDG, IATA</b>   | III  |
| - <b>14.5 Environmental hazards:</b>  | Not applicable.  |
| - <b>14.6 Special precautions for user</b><br>- <b>Kemler Number:</b><br>- <b>EMS Number:</b><br>- <b>Segregation groups</b><br>- <b>Stowage Category</b> | Warning: Corrosive substances.<br>80<br>F-A,S-B<br>(SGG18) Alkalis<br>A  |

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- <b>Segregation Code</b>	SG22 Stow "away from" ammonium salts SG35 Stow "separated from" SGG1-acids
- <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
- <b>Transport/Additional information:</b>	
- <b>ADR</b>	
- <b>Limited quantities (LQ)</b>	5L
- <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
- <b>Transport category</b>	3
- <b>Tunnel restriction code</b>	E
- <b>IMDG</b>	
- <b>Limited quantities (LQ)</b>	5L
- <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

### 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.
- **National regulations**
- **Classification according to VbF:** Void
- **Technical instructions (air):**

Class	Share in %
NK	3.0

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

- **Relevant phrases**  
H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.
- **Department issuing data specification sheet:** Ma-Fra Laboratories
- **Contact:** lab@mafra.it
- **Abbreviations and acronyms:**  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)  
DNEL: Derived No-Effect Level (UK REACH)

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*PNEC: Predicted No-Effect Concentration (UK REACH)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Met. Corr. 1: Corrosive to metals – Category 1**Acute Tox. 4: Acute toxicity – Category 4**Skin Corr. 1A: Skin corrosion/irritation – Category 1A**Skin Corr. 1B: Skin corrosion/irritation – Category 1B**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2***- \* Data compared to the previous version altered.**

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