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

1.1 Product identifier

Chemical name/ trade name: **Antifreeze EKO**

Producer: **OMA CZ, a.s.**

Address: **Stráž pod Ralskem, 47127, Borová 103**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Intended use: Antifreeze for closed cooling systems

Uses advised against: The use should be limited to those listed above.

1.3 Details of the supplier of the safety data sheet

Supplier of SDS:	OMA CZ, a.s.
Address:	Stráž pod Ralskem, 47127, Borová 103
Identification No.:	25406761
Tel:	+420 487 851 016
www:	www.omacz.cz
Responsible person for this SDS:	OMA CZ, a.s., laborator@omacz.cz

1.4 Emergency telephone number

National Poisons Information Service (NPIS), Royal Infirmary of Edinburgh, Edinburgh EH16 4SA, United Kingdom, Tel.: +44 121 507 4123, 844 892 0111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product is not classified as hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]:

Hazard pictogram(s):	None.
Signal word(s):	None.
Contain:	Propane-1,2-diol, Sodium benzoate, Disodium tetraborate, anhydrous, Sodium hydroxide, Natriummetasilicat Pentahydrat, Methanol
Hazard statement(s):	None.
Precautionary statement(s):	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.
Supplemental information:	EUH210 Safety data sheet available on request.

2.3 Other hazards

This product does not contain any substances which are classified as PBT or vPvB in a concentration of 0.1% by weight or higher.

The product contains SVHC-substance Disodium tetraborate, anhydrous.

This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Name of the component	Content (weight %)	CAS EINECS Index N° Reg. Number	Classification according to Regulation (EC) No. 1272/2008 (CLP)	
Propane-1,2-diol	> 90	57-55-6 200-338-0 01-2119456809-23-XXXX	It's not dangerous, but it has a set exposure limits and eco/toxicological values (see Sections 8, 11 and 12)	
Sodium benzoate	< 1,5	532-32-1 208-534-8 01-2119460683-35-XXXX	Eye Irrit. 2	H319
Disodium tetraborate, anhydrous	< 1,5	1330-96-4 215-540-4 005-011-00-4 01-2119490790-32-0001	Repr. 1B SCL: C ≥ 8,5%	H360FD
Sodium hydroxide	< 0,6	1310-73-2 215-185-5 011-002-00-6 01-2119457892-27-XXXX	Eye Dam. 1 Met. Corr. 1 Skin Corr. 1A	H318 H290 H314
Natriummetasilicat Pentahydrat	0,211	10213-79-3 229-912-9 014-010-00-8 01-2119449811-37-XXXX	Eye Dam. 1 Met. Corr. 1 STOT SE 3 Skin Corr. 1B	H318 H290 H335 H314
Methanol *	< 0,003	67-56-1 200-659-6 603-001-00-X 01-2119392409-28-XXXX	Acute Tox. 3 Acute Tox. 3 Acute Tox. 3 Flam. Liq. 2 STOT SE 1 *SCL: C ≥ 10%* STOT SE 2 *SCL: 3% ≤ C < 10%*	H331 H311 H301 H225 H370 H371

** Substance with a Community workplace exposure limit.*

For full text of H-statements see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

4.1.1 General advice:

In any case, avoid chaotic behavior. If you need medical treatment, always take the original package with the label or the safety data sheet. In life-threatening conditions, first resuscitate the affected person and arrange for medical assistance. Breathing - Immediately perform artificial respiration. Heart arrest - Immediately perform an indirect heart massage. Unconscious - place the affected person in a stabilized position on the side. It is always necessary to assess the situation with regard to the patient's own safety and safety. Only enter the infested area if we have adequate protection (insulating respirator, mask with the appropriate filter, protection by another worker, etc.) ATTENTION! Whenever it is a poorly ventilated area, it is important to consider the possibility that the room is infested! When handling contaminated clothing or other items, protect it with adequate personal protective equipment, including gloves. First aid should not be carried out at the place where the accident occurred, if there is a risk of the rescuer being contaminated.

4.1.2 Inhalation:

Break Exposure. Remove victim to fresh air, keep calm and warm.

4.1.3 Skin contact:

Remove contaminated clothing and footwear. Wash the affected skin with water and soap. If there is irritation, seek medical attention.

4.1.4 Eye contact:

If the contact lenses are used, carefully remove them and start rinsing with clean water, the affected eye wide open, from the inner corner to the outside and also under the lid for at least 15 minutes. If problems persist, seek medical attention.

4.1.5 Ingestion:

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person or if it has cramps.

4.1.6 Protection of first aiders:

When providing first aid, it is essential to ensure both the rescue and the rescued safety.

4.2 Most important symptoms and effects, both acute and delayed

May be mildly irritating to mucous membranes, eyes and skin. After absorption of high doses, may systemic effects such as CNS depression may occur. Hot vapours may cause lung damage.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Foam, extinguishing powder, CO2, water mist.
Unsuitable extinguishing media:	Direct water flow - could cause fire to spread.

5.2 Special hazards arising from the substance or mixture

Combustion products and hazardous gases: smoke, carbon monoxide, carbon dioxide.

5.3 Advice for firefighters

Respiratory units exposed to smoke or vapors must be equipped with respiratory and eye protection devices. When using in enclosed areas, an insulating respirator must be used. Containers exposed to fire cool with water mist. Collect extinguishing water separately, and avoid its penetration into the soil and water. Chemical protective clothing (EN 469).

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, replace contaminated clothing. Avoid contact with skin and eyes, contamination of clothes and shoes. Ensure ventilation of the affected area. All persons who do not participate in rescue operations to a safe distance.

6.2 Environmental precautions

Prevent leakage into the environment, avoid ingress into surface water and sewers, soil and land. In case of leakage into the sewage system or water course, inform immediately its administrator, the police, the fire brigade or the environmental department.

6.3 Methods and material for containment and cleaning up

In case of leakage, localize and, if possible, absorb / remove mechanically. Residues or smaller amounts sweep / get absorbed into a suitable absorbent (universal sorbent, diatomaceous earth, soil, sand) and place in suitable containers and labeled for disposal transmit in accordance with applicable regulations.

6.4 Reference to other sections

See section 7, 8 a 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Use appropriate PPE. Use only in well-ventilated areas with fresh air intake or with adequate ventilation. Do not eat, drink, smoke. After working, wash your hands. Comply with regulations on health and safety at work.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly sealed original containers in a dry, cool and well-ventilated place places. Store upright to prevent leaks and spillages. Store separately from food, feed and medicines. Do not store together with oxidizing and self igniting products. Protect from heat and moisture. Suitable container and packaging materials: stainless steel, aluminium, Plastic containers, HDPE. Unsuitable container and packaging materials: Zinc

7.3 Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Exposure limits: According to national legislation of target country.

Substance	CAS	Permissible exposure limits (mg/m³)	Maximum permissible concentration (mg/m³)	Note
Sodium-hydroxide	1310-73-2	-	2	
Methanol	67-56-1	266	333	*Sen - the substance has a sensitizing effect*

Substances with Community Exposure Limits:

Substance	CAS	Limit values (mg/m³)		Note
		OEL	STEL	
Methanol	67-56-1	260	-	*Dermal*

8.1.2 **DNEL**

Propane-1,2-diol (CAS: 57-55-6)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	168
		local	mg/m³	10
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	50
		local	mg/m³	10

Sodium benzoate (CAS: 532-32-1)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	3
		local	mg/m³	0.1

Dermal	Long-term (chronic)	systemic	mg/kg bw/d	62.5
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	1.5
		local	mg/m³	0.06
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	31.25
Oral	Long-term (chronic)	systemic	mg/kg bw/d	16.6

Disodium tetraborate, anhydrous (CAS: 1330-96-4)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	6.7
		local	mg/m³	17.04
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	316.4
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	3.4
		local	mg/m³	17.04
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	159.5
Oral	Long-term (chronic)	systemic	mg/kg bw/d	0.79

Sodium hydroxide (CAS: 1310-73-2)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	-
		local	mg/m³	1
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	-
		local	mg/m³	1

Natriummetasilicat Pentahydrat (CAS: 10213-79-3)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	6.22
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	1.49
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	1.55
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	0.74
Oral	Long-term (chronic)	systemic	mg/kg bw/d	0.74

Methanol (CAS: 67-56-1)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				

Inhalation	Long-term (chronic)	systemic	mg/m³	130
		local	mg/m³	130
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	20
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	26
		local	mg/m³	26
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	4
Oral	Long-term (chronic)	systemic	mg/kg bw/d	4

PNEC

Propane-1,2-diol (CAS: 57-55-6)

Component of the environment		**PNEC**	**Unit**	**Value**
Water environment	Freshwater	$PNEC_{water, fresh.}$	mg/L	260
	Freshwater, occasional leakage	$PNEC_{water, fresh.}$	mg/L	183
	Freshwater sediment	$PNEC_{sed., fresh.}$	mg/kg sediment dw	572
	Seawater	$PNEC_{water, mar.}$	mg/L	26
	Marine sediment	$PNEC_{sed., mar.}$	mg/kg sediment dw	57.2
Microbiological activity	Wastewater treatment plant	$PNEC_{sew. treat.}$	mg/L	20 000
Terrestrial environment / organisms	Soil	$PNEC_{soil}$	mg/kg soil dw	50

Sodium benzoate (CAS: 532-32-1)

Component of the environment		**PNEC**	**Unit**	**Value**
Water environment	Freshwater	$PNEC_{water, fresh.}$	mg/L	0.581
	Freshwater, occasional leakage	$PNEC_{water, fresh.}$	mg/L	0.058
	Freshwater sediment	$PNEC_{sed., fresh.}$	mg/kg sediment dw	2.5
	Seawater	$PNEC_{water, mar.}$	mg/L	0.058
	Marine sediment	$PNEC_{sed., mar.}$	mg/kg sediment dw	0.25
Microbiological activity	Wastewater treatment plant	$PNEC_{sew. treat.}$	mg/L	10
Terrestrial environment / organisms	Soil	$PNEC_{soil}$	mg/kg soil dw	0.159
Food chain	Predators	$PNEC_{oral.}$	mg/kg food	300

Disodium tetraborate, anhydrous (CAS: 1330-96-4)

Component of the environment		**PNEC**	**Unit**	**Value**
Water environment	Freshwater	$PNEC_{water, fresh.}$	mg/L	2.9
	Freshwater, occasional leakage	$PNEC_{water, fresh.}$	mg/L	13.7
	Seawater	$PNEC_{water, mar.}$	mg/L	2.9
Microbiological activity	Wastewater treatment plant	$PNEC_{sew. treat.}$	mg/L	10
Terrestrial environment / organisms	Soil	$PNEC_{soil}$	mg/kg soil dw	5.7

Natriummetasilicat Pentahydrat (CAS: 10213-79-3)

Component of the environment		**PNEC**	**Unit**	**Value**
Water environment	Freshwater	$PNEC_{water, fresh.}$	mg/L	7.5
	Freshwater, occasional leakage	$PNEC_{water, fresh.}$	mg/L	7.5
	Seawater	$PNEC_{water, mar.}$	mg/L	1
Microbiological activity	Wastewater treatment plant	$PNEC_{sew. treat.}$	mg/L	1 000

DNEL and PNEC values for the other components of the mixture haven´t been determined.

8.1.3 Biological limit values

Substance	CAS No:	Indicator	Limit Value
No data available.			

8.2 Exposure controls

8.2.1 Technical measures

Technical measures and appropriate work procedures take precedence over personal protective equipment. Observe the usual hygiene principles. Do not eat, drink, smoke. Before breaks and after work wash your hands with warm water and soap.

8.2.2 Individual protection measures

Respiratory protection:

If the exposure limits are exceeded, when using dust, fog, aerosol, use a suitable filter (type ABEK -EN 14387 - anti-gas and combined filters, type P -EN 143 - particle filters, type FFP3 / FFP2 - EN 149+A1 - Particle-based half masks; EN 142 - mouth masks).

Hand protection:

Protective working gloves (EN 374). Observe the manufacturer's exact instructions, including the time of use. Replace damaged gloves.

Eye / face protection:

Safety glasses with side-plates or facial shields (EN 166); eye and face protection for work use (EN ISO 16321).

Skin protection:

Working clothes (EN ISO 13688) and footwear (EN ISO 20347 and ISO 20345). Protective clothing against liquid chemicals (EN 14605+A1). Protective clothing against chemicals (EN ISO 14325).

8.2.3 Thermal hazards:

No data available.

8.2.4 Environmental exposure controls:

Avoid unnecessary releases into the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Value	Method	Note
Physical state:	Liquid		
Colour:	Colourless, Yellowish		
Odour:	No data available.		
Odour threshold:	No data available.		
pH :	7.7 - 8.5 (33% aqueous solution)		
Melting point / freezing point (°C):	No data available.		
Boiling point or initial boiling point and boiling range (°C):	No data available.		
Flash point (°C):	No data available.		
Evaporation rate:	No data available.		
Flammability (gases, liquids and solids):	No data available.		
Lower and upper explosion limit:	No data available.		
Vapour pressure (20 °C):	No data available.		
Vapour pressure (50 °C):	No data available.		
Relative vapour density:	No data available.		
Density and/or relative density (g/cm³, 20 °C):	1.06		
Solubility (20 °C):	Miscible with water		
Partition coefficient n-octanol/water (log value):	No data available.		
Auto-ignition temperature:	No data available.		
Decomposition temperature:	No data available.		
Kinematic viscosity (40°C):	No data available.		

Refractive index (20 °C):	No data available.		
Oxidising properties:	No data available.		
Explosive properties:	No data available.		
Particle characteristics:	No data available.		

9.2 Other information

VOC (%): 0

Dry matter content: No data available.

Additional information: No data available.

9.2.1 Information with regard to physical hazard classes

The product has no physical hazards.

9.2.2 Other safety characteristics

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Not expected under proper conditions of use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Dangerous reactions are not known.

10.4 Conditions to avoid

High temperatures (> 40 °C), ignition sources, sunlight, humidity.

10.5 Incompatible materials

Strong oxidizing agents, strong acids, zinc.

10.6 Hazardous decomposition products

Thermal decomposition may produce: carbon monoxide and other toxic vapours.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Individual components

Propane-1,2-diol (CAS: 57-55-6)

Acute toxicity

Test type	Results	Exposure	Tested organisms
key study	22 000 mg/kg bw, LD50	oral: gavage	rat
key study	> 2 000 mg/kg bw, LD50	dermal	rabbit
weight of evidence	> 44.9 mg/L air (analytical)	inhalation: aerosol	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
	No data available.		

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
OECD 404, key study	not irritating	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - single exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
key study	1 700 mg/kg bw/day (actual dose received), NOAEL 2 100 mg/kg bw/day (actual dose received), NOAEL	oral	rat
key study	1 000 mg/m³ air, NOAEC 2 200 mg/m³ air, NOAEC 160 mg/m³ air, LOEC	inhalation	rat
supporting study	0.02 ml/twice a week, NOAEL	dermal	mouse

Carcinogenicity

Test type	Results	Exposure	Tested organisms
key study	3 040 mg/kg bw/day (actual dose received), NOAEL 2 330 mg/kg bw/day (actual dose received), NOAEL	oral: drinking water	rat
supporting study	> 350 mg/m³ air, NOAEC	inhalation: vapour	rat
supporting study	0.02 ml/twice a week, NOAEL	dermal	mouse

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
key study	negative	oral: gavage	rat

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
key study	10 100 mg/kg bw/day (actual dose received), NOAEL 10 100 mg/kg bw/day (actual dose received), NOAEL 10 100 mg/kg bw/day, NOAEL	oral: drinking water	mouse

Aspiration hazard

Test type	Results	Exposure	Tested organisms
	No data available.		

Sodium benzoate (CAS: 532-32-1)

Acute toxicity

Test type	Results	Exposure	Tested organisms
weight of evidence	3 450 mg/kg bw, LD50	oral: feed	rat
key study	> 2 000 mg/kg bw, LD50	dermal	rabbit
key study	> 12 200 mg/m³ air	inhalation: dust	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
OECD 405, key study	Category 2	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
OECD 404, key study	not irritating	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
OECD 429, key study	not sensitising not sensitising	Skin	mouse

STOT - single exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
key study	1 000 mg/kg bw/day (nominal), NOAEL	oral	rat
OECD 412, key study	<= 25 mg/m³ air, NOAEC 250 mg/m³ air, NOAEL	inhalation	rat
key study	> 2 500 mg/kg bw/day (nominal), NOAEL	dermal	rabbit

Carcinogenicity

Test type	Results	Exposure	Tested organisms
key study	> 1 000 mg/kg bw/day, NOAEL	oral: feed	rat

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
OECD 475, key study	negative	oral: gavage	rat

Reproductive toxicity

Test type	Results	Exposure	Tested organisms

key study	> 50 000 ppm, NOEL > 50 000 ppm, NOEL > 50 000 ppm, NOEL > 50 000 ppm, NOEL 50 000 ppm	oral: feed	other: both rat and mouse are reported by Morrissey et al.

Aspiration hazard

Test type	Results	Exposure	Tested organisms
	No data available.		

Disodium tetraborate, anhydrous (CAS: 1330-96-4)

Acute toxicity

Test type	Results	Exposure	Tested organisms
OECD 401, key study	> 2 500 mg/kg bw, LD50	oral: gavage	rat
key study	> 2 000 mg/kg bw, LD50	dermal	rabbit
OECD 403, key study	> 2.04 mg/L air (nominal)	inhalation: dust	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
OECD 405, key study	Category 2 (irritating to eyes) based on GHS criteria	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
key study	not irritating	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
OECD 406, key study	not sensitising	Skin	guinea pig

STOT - single exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
key study	100 mg/kg bw/day (nominal), NOAEL 334 mg/kg bw/day (nominal), LOAEL 17.5 mg/kg bw/day (nominal), NOAEL 58.5 mg/kg bw/day (nominal), LOAEL	oral	rat

key study	470 mg/m³ air (nominal), NOAEC 175 mg/m³ air (nominal), NOAEC 57 mg/m³ air (nominal), NOAEC	inhalation	other: rats and dogs (only females)

Carcinogenicity

Test type	Results	Exposure	Tested organisms
OECD 451, key study	> 5 000 ppm (nominal), NOEL	oral: feed	mouse

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
OECD 474, key study	negative	oral: gavage	mouse

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
key study	155 mg/kg bw/day, NOAEL 518 mg/kg bw/day, LOAEL 17.5 mg/kg bw/day, NOAEL 58.5 mg/kg bw/day, LOAEL 155 mg/kg bw/day, NOAEL 17.5 mg/kg bw/day, NOAEL 155 mg/kg bw/day, NOAEL 17.5 mg/kg bw/day, NOAEL	oral: feed	rat

Aspiration hazard

Test type	Results	Exposure	Tested organisms
	No data available.		

Sodium hydroxide (CAS: 1310-73-2)

Acute toxicity

Test type	Results	Exposure	Tested organisms
key study	325 mg/kg bw, LD50	oral: unspecified	rabbit

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
OECD 405, key study	irritating	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
OECD 435, key study	Category 1 (corrosive) based on GHS criteria	Skin	artificial membrane barrier model

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
key study	GHS criteria not met	Skin	other: human

STOT - single exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

Carcinogenicity

Test type	Results	Exposure	Tested organisms
	No data available.		

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
key study	negative	In vitro	S. typhimurium TA 1538

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
	No data available.		

Aspiration hazard

Test type	Results	Exposure	Tested organisms
	No data available.		

Natriummetasilicat Pentahydrat (CAS: 10213-79-3)

Acute toxicity

Test type	Results	Exposure	Tested organisms
key study	770 - 820 mg/kg bw, LD50 661.5 - 896.3 mg/kg bw, LD50 666.7 - 1 008.6 mg/kg bw, LD50	oral: unspecified	mouse
key study	> 5 000 mg/kg bw, LD50	dermal	rat
key study	> 2.06 mg/L air (analytical)	inhalation: vapour	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
other information	corrosive	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
OECD 404, key study	corrosive	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms

OECD 429, key study	not sensitising	Skin	mouse

STOT - single exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
key study	260 - 284 mg/kg bw/day (nominal), NOAEL 716 - 892 mg/kg bw/day (nominal), LOAEL	oral	mouse

Carcinogenicity

Test type	Results	Exposure	Tested organisms
	No data available.		

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
OECD 475, key study	negative	oral: feed	mouse

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
key study	> 159 mg/kg bw/day, NOAEL	oral: drinking water	rat

Aspiration hazard

Test type	Results	Exposure	Tested organisms
	No data available.		

Methanol (CAS: 67-56-1)

Acute toxicity

Test type	Results	Exposure	Tested organisms
OECD 401, weight of evidence	>= 2 528 mg/kg bw, LD0	oral: gavage	rat
supporting study	17 100 mg/kg bw, LD50	dermal	rabbit
weight of evidence	43.68 mg/L air	inhalation	cat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
key study	not irritating	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
key study	not irritating	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
OECD 406, key study	not sensitising	Skin	guinea pig

STOT - single exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
weight of evidence	2 340 mg/kg bw/day (actual dose received), LOAEL	oral	monkey
weight of evidence	0.013 mg/L air (nominal), NOAEC 0.13 mg/L air (nominal), LOAEC	inhalation	monkey

Carcinogenicity

Test type	Results	Exposure	Tested organisms
weight of evidence	> 466 - < 529 mg/kg bw/day, NOAEL > 1 872 - < 2 101 mg/kg bw/day, LOAEL	oral: drinking water	rat
OECD 453, weight of evidence	>= 1.3 mg/L air, NOAEC	inhalation: vapour	mouse

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
weight of evidence	negative	oral: gavage	mouse
weight of evidence	negative	inhalation: vapour	mouse

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
OECD 415, weight of evidence	2.39 mg/L air (nominal), NOAEC 2.39 mg/L air (nominal), NOAEC	inhalation: vapour	monkey

Aspiration hazard

Test type	Results	Exposure	Tested organisms
	No data available.		

mixture

Acute toxicity:	The product does not meet the criteria for classification.
Serious eye damage / irritation:	The product does not meet the criteria for classification.
Skin corrosion / irritation:	The product does not meet the criteria for classification.
Respiratory or skin sensitisation:	The product does not meet the criteria for classification.
STOT - single exposure:	The product does not meet the criteria for classification.
STOT - repeated exposure:	The product does not meet the criteria for classification.
Carcinogenicity:	The product does not meet the criteria for classification.

Germ cell mutagenicity: The product does not meet the criteria for classification.
Reproductive toxicity: The product does not meet the criteria for classification.
Aspiration hazard: The product does not meet the criteria for classification.

11.2 Information on other hazards

Endocrine disrupting properties

This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

Other information

No data available.

SECTION 12: Ecological information

12.1 Toxicity

The product does not meet the criteria for classification.

Propane-1,2-diol (CAS: 57-55-6)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Oncorhynchus mykiss*	40 613 mg/L, LC50 / 96 h	
Acute toxicity to invertebrates	*Ceriodaphnia dubia*	18 340 mg/L, LC50 / 48 h	
Acute toxicity to aquatic algae	*Raphidocelis subcapitata*	34 100 mg/L, EC50 / 48 h 24 200 mg/L, EC50 / 72 h 19 000 mg/L, EC50 / 96 h 15 000 mg/L, NOEC / 14 d	OECD 201
Biotic degradation		Readily biodegradable (100%), Biotic degradation	
log Kow / log Pow		-1.07 @ 20 °C, log Kow	

Sodium benzoate (CAS: 532-32-1)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Pimephales promelas*	484 mg/L, LC50 / 96 h 392.5 mg/L, NOEC / 96 h	
Acute toxicity to invertebrates	*Daphnia magna*	> 100 mg/L, LC50 / 96 h	OECD 202
Acute toxicity to aquatic algae	*Raphidocelis subcapitata*	> 30.5 mg/L, EC50 / 72 h 6.5 mg/L, EC10 / 72 h 24.8 mg/L, other: / 72 h 0.09 mg/L, NOEC / 72 h 0.09 mg/L, other: / 72 h	OECD 201
Biotic degradation		Readily biodegradable (100%), Biotic degradation	
log Kow / log Pow		1,87999999523163, log Kow	

Disodium tetraborate, anhydrous (CAS: 1330-96-4)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Pimephales promelas*	79.7 mg/L, LC50 / 96 h	
Acute toxicity to invertebrates	*other aquatic arthropod: Allocaphnia vivipara (Insecta, stonefly)*	476 mg/L, LC50 / 96 h	

Acute toxicity to aquatic algae	*Pseudokirchneriella subcapitata*	24.5 mg/L, EC10 / 3 d 35 mg/L, EC10 / 3 d 17.5 mg/L, NOEC / 3 d 40.2 mg/L, EC50 / 3 d 52.4 mg/L, EC50 / 3 d	OECD 201

Sodium hydroxide (CAS: 1310-73-2)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Notropis atherinoides*	100 mg/L, other: / 120 h	
Acute toxicity to invertebrates	*Ceriodaphnia sp.*	40.4 mg/L, EC50 / 48 h	
Acute toxicity to aquatic algae		No data available.	

Natriummetasilicat Pentahydrat (CAS: 10213-79-3)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Danio rerio*	180 mg/L, LC0 / 96 h 210 mg/L, LC50 / 96 h 250 mg/L, LC100 / 96 h	
Acute toxicity to invertebrates	*Daphnia magna*	100 mg/L, EC0 / 48 h 1 700 mg/L, EC50 / 48 h 10 000 mg/L, EC100 / 48 h	
Acute toxicity to aquatic algae	*Desmodesmus subspicatus*	35 mg/L, EC0 / 72 h 207 mg/L, EC50 / 72 h > 345.4 mg/L, EC0 / 72 h	

Methanol (CAS: 67-56-1)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Lepomis macrochirus*	15 400 mg/L, LC50 / 96 h 12 700 mg/L, EC50 / 96 h	
Acute toxicity to invertebrates	*Daphnia magna*	18 260 mg/L, EC50 / 96 h	OECD 202
Acute toxicity to aquatic algae	*Raphidocelis subcapitata*	ca. 22 000 mg/L, EC50 / 96 h	OECD 201
Biotic degradation		Readily biodegradable (100%), Biotic degradation	
log Kow / log Pow		-0.77 @ 20 °C, log Kow	

12.2 Persistence and degradability

There is no data available for the product.

Biotic degradation: The biodegradability of the component is given in sec. 12.1

12.3 Bioaccumulative potential

There is no data available for the product.

log Kow / log Pow: The value of the partition coefficient of the component is given in sec. 12.1

Bioaccumulation: Data are not available for substances.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This product does not contain any substances which are classified as PBT or vPvB in a concentration of 0.1% by weight or higher.

12.6 Endocrine disrupting properties

This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 Catalogue No. of substance/mixture waste:

16 01 14 Antifreeze fluids containing dangerous substances

13.1.2 Catalog No. of packaging waste:

15 01 02 Plastic packaging

15 01 10 Packaging containing residues of or contaminated by dangerous substances

13.1.3 Recommended procedure for substance/mixture waste disposal:

No data available.

13.1.4 Recommended procedure for packaging disposal:

Empty containers must be disposed of in accordance with the applicable waste legislation. After perfect cleaning, the packaging can be used as a secondary raw material for the same purpose. Recommended way of disposing of recycling, burning in a hazardous waste incinerator or storing hazardous waste.

13.1.5 Physical / chemical properties that may affect waste treatment method:

No data available.

13.1.6 Sewage disposal-relevant information:

Protect against weathering. Prevent leakage of waste into the water / soil / sewage system. In case of leakage, inform the competent authorities.

13.1.7 Other disposal recommendations:

Dispose of in accordance with applicable legislation.

SECTION 14: Transport information

	Type of transport	Land transport ADR / RID	Sea transport IMDG	Air Transport ICAO / IATA
14.1	**UN number or ID number**	There is no dangerous good in terms of transport.	There is no dangerous good in terms of transport.	There is no dangerous good in terms of transport.
14.2	**UN proper shipping name**			
14.3	**Transport hazard class(es)**			
	Classification code	-	-	-
	Labels			
14.4	**Packing group**			

14.5 Environmental hazards

No data available.

14.6 Special precautions for user

No data available.

14.7 Maritime transport in bulk according to IMO instruments

Not specified.

Other information

Type of transport	Land transport ADR / RID	Sea transport IMDG	Air Transport ICAO / IATA
Limited quantities:			
Excepted quantities:			
Transport category:		-	-
Tunnel restriction code:		-	-
Segregation group:	-		-

SECTION 15: Regulatory information

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

all as amended and including implementing regulations
Regulation (EC) No. 1272/2008 (CLP) on classification, labelling and packaging of substances and mixtures,…
Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH),…
Applicable national regulations.

The product contains substance Methanol (A500 / B5000) with its own evaluation limit according to Seveso III (Directive 2012/18 / EU).
The product contains SVHC-substance Disodium tetraborate, anhydrous.
The product contains substance Disodium tetraborate, anhydrous, Methanol, that is included in Annex XVII. of REACH Regulation.

15.2 Chemical safety assessment

Chemical safety assessment hasn´t been made.

SECTION 16: Other information

Complete text of all classifications and hazard classes referred to in SECTION 3

Hazard class:

Acute Tox. 3 - Acute Toxicity, category 3
Eye Dam. 1 - Serious eye damage, category 1
Eye Irrit. 2 - Eye irritation, category 2
Flam. Liq. 2 - Flammable liquids, category 2
Met. Corr. 1 - Corrosive to metals, category 1
Repr. 1B - Reproductive toxicity, category 1B
STOT SE 1 - Specific target organ toxicity — single exposure, category 1
STOT SE 2 - Specific target organ toxicity — single exposure, category 2
STOT SE 3 - Specific target organ toxicity — single exposure, category 3
Skin Corr. 1A - Skin corrosion, category 1A
Skin Corr. 1B - Skin corrosion, category 1B

H-statements:

H225 Highly flammable liquid and vapour.
H290 May be corrosive to metals.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H360FD May damage fertility. May damage the unborn child.
H370 Causes damage to organs <or state all organs affected, if known><state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H371 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

Abbreviations

ADR	Accord Dangereuses Route
CAS	Chemical Abstracts Service
DNEL	Derived no-effect level
EC50	Effect concentration for 50%
EINECS	European Inventory of Existing Commercial Chemical Substances
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration for 50%
LD50	Lethal dose for 50%
LOAEC	Lowest observable adverse effect concentration
LOAEL	Lowest observable adverse effect level
LOEC	Lowest observable effect concentration
NOAEC	No observable adverse effect concentration
NOAEL	No observable adverse effect level
NOEC	No observable effect concentration
NOEL	No observable effect level
NPK-P	Maximum permissible concentration
OEL	Occupational Exposure Limit (workplace exposure limit - 8 hours / shift)
PBT	Persistent, bioacumulative and toxic
PEL	Permissible exposure limits
PNEC	Predicted no-effect concentration
RID	Regulations for the International Carriage of Dangerous Goods by Rail
SCL	Specific concentration limits
STEL	Short Term Exposure Limit (short exposure - corresponds to approx. 15 min.)
VOC	Volatile organic substances
vPvB	Very persistent and very bioacumulative
WGK	Hazard classes for water (Wassergefährdungsklassen)

Changes to previous version SDS:

New SDS developed on the basis of Commission Regulation (EU) 2020/878. The classification was carried out by calculation.

Instructions for training

Workers who come into contact with dangerous substances must be aware of the effects of these substances, how they are treated, and protective measures to the extent necessary.

Furthermore, they must be familiar with the first aid principles, with the necessary sanitation procedures and with the procedures for disaster and accident elimination.

The person handling this chemical product must be familiar with the safety rules and the data given in the safety data sheet.

If a hazardous chemical / mixture is classified as corrosive or toxic, workers should be made aware of the Corrosive / Toxic Chemicals / Mixing Rules.

Persons carrying dangerous substances must be familiar with the ADR / RID accident instructions.

Other information

The above information describes the conditions for safe handling of the product and corresponds to the current knowledge of the manufacturer and serves as instruction for the training of the persons handling the product.

The manufacturer carries guarantee the above-described properties of the product at the recommended use.

The user is responsible for determining the suitability of the product for specific purposes and adapting security measures if such application is contrary to the manufacturer's recommendations.