SAFETY DATA SHEET

according to Regulation No. 1907/2006 of the European Parliament and of the Council, as subsequently amended

VAKAVO Universal

Date of issue: **27. 03. 2023** Version: **1.0**

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

1.1. Product identifier

Product Name

VAKAVO Universal

UFI code

UFI: 33J0-H0VD-700N-FY4A

Product code

TBVUN01.

Mixture description

Water solution.

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

Identified uses

Liquid neutral product, which is intended for daily cleaning. Its composition is suitable for washing dishes, surfaces and floors.

Consumer use.

Uses advised against

Not known. It is recommended to use it only for the intended use. Other uses may expose users to unpredictable risks.

1.3. Details of the supplier of the safety data sheet

CORMEN s.r.o.
Věchnov 73
593 01
Czech Republic
telephone: +420 566 550 961
Fax: +420 566 551 822
e-mail address for a competent person responsible for the SDS: info@cormen.cz

1.4. Emergency telephone number

112 (General emergency phone).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture **is classified as hazardous** according to regulation 1272/2008/EC.

Classification according to 1272/2008/EC

Skin Sens. 1A; H317
Eye Irrit. 2; H319
Aquatic Chronic 3; H412

Full text of classifications and H-phrases: see section 16.

The most important adverse physical, human health and environmental effects

May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictograms

Signal word

Warning

Substances of the mixture to be placed on the label

Contains Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1).

Hazard statements

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P102	Keep out of reach of children.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Supplemental hazard information

Mandatory additional information is not required according to CLP regulation.

Composition according to regulation 648/2004/EC on detergents: < 5 % anionic surfactants, non-ionic surfactants, perfumes, LIMONENE, CITRAL, preservation agents (BENZYL ALCOHOL, METHYLCHLOROISOTHIAZOLINONE AND METHYLISOTHIAZOLINONE).

2.3. Other hazards

Mixture does not contain substance(s) meeting the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII of REACH regulation. The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet (established in accordance with Article 59(1) of REACH regulation. Mixture does not contain the substance(s) identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

3.2.1. Substances of a mixture classified as hazardous

Identification of substance	Content wt. %	Classification according to 1272/2008/EC
Alcohols, C12-14, ethoxylated, sulfates, sodium salts CAS Number 68891-38-3 EC Number 500-234-8 Index Number not given Registration Number 01-2119488639-16-XXXX The substance has specific concentration limits: Eye Dam. 1; H318 C ≥ 10 % Eye Irrit. 2; H319 5 % < C < 10 %	< 4.5	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412
Amines, C12-14 (even numbered) -alkyldimethyl, N-oxides CAS Number 308062-28-4 EC Number 931-292-6 Index Number not given Registration Number 01-2119490061-47-XXXX	< 0.7	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M=1
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS Number 55965-84-9 EC Number not given Index Number 613-167-00-5 Registration Number not yet available The substance has specific concentration limits: Skin Corr. 1C; H314 C ≥ 0.6 % Eye Dam. 1; H318 C ≥ 0.6 %	< 0.0023	Acute Tox. 3; H301 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Acute Tox. 2; H330 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071 M=100 M(Chronic)=100

Skin Irrit. 2; H315		0.06 % ≤ C < 0.6 %	
Eye Irrit. 2; H319		0.06 % ≤ C < 0.6 %	
Skin Sens. 1A; H317		C ≥ 0.0015 %	
Ethanediol; Ethylene glycol			
CAS Number	107-21-1	< $1.0*10^{-7}$	Acute Tox. 4; H302 STOT RE 2; H373
EC Number	203-473-3		
Index Number	603-027-00-1		
Registration Number	not yet available		

Full text of classifications and H-phrases: see section 16.

SECTION 4: First aid measures

In all cases keep the victim at physical and mental rest and warm. In case of doubt or if symptoms persist, seek medical attention. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing. Protect yourself during rescue work.

4.1. Description of first aid measures

Inhalation

Interrupt the exposure, move the person to the fresh air. In case of persistent nausea, seek medical advice.

Skin contact

Remove contaminated clothing, shoes, and wash affected skin thoroughly with water (preferably lukewarm) and soap. Do not use solvents or thinners. If the problem persists, seek medical advice.

Eye contact

Rinse with a gentle stream of water for at least 15 minutes. Keep your eyelids wide open with your thumb and forefinger. If the affected person is wearing contact lenses, remove them before rinsing eyes if it is easy. If pain or redness persists, seek medical advice.

Ingestion

Rinse your mouth and then drink plenty of water. Do not induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Are not known.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Small fire:

Carbon dioxide CO_2, dry extinguishing agent, sand or earth, alcohol-resistant foam.

Extensive fire:

Fragmented water streams (water mist), alcohol-resistant foam.

Unsuitable extinguishing media

Solid streams of water may be ineffective.

5.2. Special hazards arising from the substance or mixture

In case of fire extinguishing prevent leakage of water and rest of product into drains. Collect them separately and dispose of safely in accordance with current legislation and applicable local regulations.

In case of fires, hazardous combustion gases are formed: carbon oxides, sulphur oxides, hydrogen sulphide, nitrogen oxides, ammonia, chlorine oxides, hydrogen chloride and products of incomplete combustion.

5.3. Advice for firefighters

Stop further leakage of product if possible. Spilled product, which does not burn, cover with sand or foam. Move containers and barrels away from the fire to a safe place, if possible. Cool all affected containers down with flooding quantities of water. If the fire can´t be extinguished - evacuate the premises.

In case of fire, wear suitable respiratory protective equipment and fire-fighting suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes, use suitable protective equipment and clothing, see Section 8. Ensure adequate ventilation. Avoid formation of vapour and aerosol. At the point of leakage, prevent the movement of unauthorized persons.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. If this cannot be avoided, inform the competent authorities (police and firefighters) immediately.

6.3. Methods and material for containment and cleaning up

According to the amount of spilled liquid, drain away the substance (large spillage) or in case of small spillage, absorb it with suitable absorbent (vermiculite, dry sand), put into labelled closed containers and dispose of them accordingly to Section 13. Flush residues with water and collect it for waste disposal. Do not use solvents or dispersants unless instructed by an expert or government authority.

If container is damaged, remove the content to the new undamaged container and label it properly again.

6.4. Reference to other sections

Refer also to the provisions of sections 7, 8 and 13 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Personal protection see. Section 8. Ensure good ventilation to prevent formation of vapour and aerosol.

Smoking, eating and drinking should be prohibited at the place of use. Keep safety regulations for handling chemicals. Take off contaminated clothing and protective equipment before entering the dining area. Do not use dirty clothing. After work wash yourself carefully with warm water and soap, take a shower. Use protective cream.

7.2. Conditions for safe storage, including any incompatibilities

Store in original, tightly closed containers, in a dry, cool and well-ventilated place at room temperature.

Protect from frost.

Do not store together with incompatible materials (see subsection 10.5), food, drink and feed.

7.3. Specific end use(s)

Add 15 ml of concentrate to 5 liters of washing solution.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure limit value

Ethandiol CAS: 107-21-1

Limit values - Eight hours		Limit values - Short-term		Note
52 mg/m^3	20 ppm	104 mg/m^3	40 ppm	Skin

8.1.2. Biological limit values

Not determined in EU.

8.1.3. DNEL and PNEC values

Alcohols, C12-14, ethoxylated, sulfates, sodium salts CAS: 68891-38-3

DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	175 mg/m^3
Workers	Dermal	Systemic effect	Long term	2 750 mg/kg/day
Workers	Dermal	Local effect	Long term	132 µg/cm^2
General population	Inhalation	Systemic effect	Long term	52 mg/m^3
General population	Dermal	Systemic effect	Long term	1 650 mg/kg/day
General population	Dermal	Local effect	Long term	79 µg/cm^2
General population	Oral	Systemic effect	Long term	15 mg/kg/day

PNEC

Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	
0.24 mg/l	0.024 mg/l	0.071 mg/l	not given	10 g/l

PNEC

Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
0.917 mg/kg	0.092 mg/kg	no effect	7.5 mg/kg	no effect

Amines, C12-14 (even numbered) -alkyldimethyl, N-oxides CAS: 308062-28-4

DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	6.2 mg/m^3
Workers	Dermal	Systemic effect	Long term	11 mg/kg/day
General population	Inhalation	Systemic effect	Long term	1.53 mg/m^3
General population	Dermal	Systemic effect	Long term	5.5 mg/kg/day
General population	Oral	Systemic effect	Long term	0.44 mg/kg/day

PNEC

Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	

0.034 mg/l	0.003 mg/l	0.034 mg/l	not given	24 mg/l

PNEC

Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
5.24 mg/l	0.524 mg/kg	no effect	1.02 mg/kg	11.1 mg/kg food

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Use only in well-ventilated areas.

Observe usual safety precautions for working with chemicals. The degree of effectiveness of personal protective equipment depends on temperature and ventilation levels.

8.2.2. Individual protection measures, such as personal protective equipment

Do not eat, drink or smoke. After work, wash thoroughly with warm water and soap and take a shower. Use protective cream. Do not soiled protective equipment to wash, do not use solvents.

Eye/face protection

Wear safety glasses or face shield (EN 166, EN 149+A1).

Skin protection - hand protection

Wear protective gloves (EN 374-1, EN 374-2).

Recommended gloves material:

nitrile rubber, breakthrough time: ≥ 480 min., glove thickness: ≥ 0.4 mm

butyl rubber, breakthrough time: ≥ 30 min., glove thickness: ≥ 0.4 mm

The selection of the glove material on consideration of the breakthrough time, permeability, degradation and next relevant factors; other chemicals that may come into contact, physical requirements (cut and puncture protection, dexterity, thermal protection), possible body reactions to the glove material and the glove supplier's instructions and specifications. In case of repeated use of gloves, clean and keep them in a well-ventilated place before taking off.

Skin protection - other

Suitable protective working clothing (EN ISO 13688) and protective footwear (EN ISO 20346).

Respiratory protection

Not necessary in case of compliance concentration limits (if they were exceeded, use a respirator against organic vapour, EN 14387). In the event of an accident or a fire use self-contained breathing apparatus.

Thermal hazards

In normal use, it is not necessary to use protective equipment to be worn for materials that represent a thermal hazard.

8.2.3. Environmental exposure controls

Uncontrolled release of the mixture into environment is to be avoided. Keep the emission limits according to national legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Mixture

Physical state	Liquid.

Colour	Blue.
Odour	Characteristic.
Melting point/freezing point	Not determined.
Boiling point or initial boiling point and boiling range	Not determined.
Flammability	Not determined, it is an aqueous solution which does not contain any flammable substances or the concentration of flammable substance(s) is lower than the limit for inclusion in Section 3.
Lower explosion limit	Not determined, it is an aqueous solution which does not contain any flammable substances or the concentration of flammable substance(s) is lower than the limit for inclusion in Section 3.
Upper explosion limit	Not determined, it is an aqueous solution which does not contain any flammable substances or the concentration of flammable substance(s) is lower than the limit for inclusion in Section 3.
Flash point	Not determined.
Auto-ignition temperature	Not determined.
Decomposition temperature	Not determined, the mixture does not contain self-reactive substances or organic peroxides or other substances which may decompose.
pH	8.0 - 8.5 (20 °C).
Kinematic viscosity	Not determined, the mixture does not contain a substance classified as aspiration toxic, or the sum of the concentrations of substances classified as aspiration toxic is less than 10 wt. %.
Solubility	Fully miscible with water.
Partition coefficient n-octanol/water (log value)	Does not apply to mixture.
Vapour pressure	Not determined.
Density and/or relative density	Not determined.
Relative vapour density	Not determined.
Particle characteristics	Does not apply to liquid.
Alcohols, C12-14, ethoxylated, sulfates, sodium salts	CAS: 68891-38-3
Physical state	Solid.
Colour	Yellowish.
Odour	Rancid.
Melting point/freezing point	> 300 °C (ASTM E737-76).
Boiling point or initial boiling point and boiling range	Not determined, the substance has a melting point higher than 300 ° C.
Flammability	The substance is not classified as flammable solid (EU method A.10)
Lower explosion limit	Does not apply to solid.

Upper explosion limit	Does not apply to solid.
Flash point	Does not apply to solid.
Auto-ignition temperature	250 °C (EU method A.16)
Decomposition temperature	Not determined, it is not a self-reactive substance or an organic peroxide or a substance that may decompose.
pH	Not determined.
Kinematic viscosity	Does not apply to solid.
Solubility	280 g/l (20 °C, pH = 6.8, literature).
Partition coefficient n-octanol/water (log value)	log Pow = 0.3 (23 °C, pH = 6.1, OECD 123).
Vapour pressure	Not determined, the substance has melting point higher than 300 °C.
Density and/or relative density	1.08 g/cm^3 (22 °C, OECD 109).
Relative vapour density	Does not apply to solid.
Particle characteristics	Not determined.

Amines, C12-14 (even numbered) -alkyldimethyl, N-oxides CAS: 308062-28-4

Physical state	Solid.
Colour	White.
Odour	Not determined.
Melting point/freezing point	125 - 134 °C (literature).
Boiling point or initial boiling point and boiling range	Not determined.
Flammability	The substance is not classified as flammable (EU method A.10).
Lower explosion limit	Does not apply to solid.
Upper explosion limit	Does not apply to solid.
Flash point	Does not apply to solid.
Auto-ignition temperature	Does not apply to solid.
Decomposition temperature	Not determined, it is not a self-reactive substance or an organic peroxide or a substance that may decompose.
pH	Not determined.
Kinematic viscosity	Does not apply to solid.
Solubility	409.5 g/l (literature).
Partition coefficient n-octanol/water (log value)	log Pow = 1.85 (C12, calculation). log Pow = 2.69 (C14, calculation).
Vapour pressure	ca. 0 Pa (25 °C, calculation).
Density and/or relative density	D_4^{23} = 0.716 (EU method A.3).
Relative vapour density	Does not apply to solid.

Particle characteristics	Not determined.

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Mixture

The mixture does not contain substances classified as hazardous to the physical classes, or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Alcohols, C12-14, ethoxylated, sulfates, sodium salts CAS: 68891-38-3

Explosives

Data for the substance are not available.
The substance does not contain chemical groups associated with explosive properties.

Flammable gases

It is not gas.

Aerosols

It is not aerosol.

Oxidising gases

It is not gas.

Gases under pressure

It is not gas.

Flammable liquids

It is not liquid.

Flammable solids

The substance is not classified as flammable solid, burning time > 2 400 s (EU method A.10).

Self-reactive substances and mixtures

Data for the substance are not available.
The substance does not contain chemical groups associated with explosive or self-reactive properties.

Pyrophoric liquids

It is not liquid.

Pyrophoric solids

Data for the substance are not available.
The substance is stable in air, there is no spontaneous ignition.

Self-heating substances and mixtures

Data for the substance are not available.
The substance is not classified as self-heating.

Substances and mixtures, which emit flammable gases in contact with water

Data for the substance are not available.
The chemical structure of the substance does not contain metals or metalloids.
The substance is miscible with water and forms a stable mixture with it.

Oxidising liquids

It is not liquid.

Oxidizing solids

Data for the substance are not available.
It is an organic substance does not contain chemical groups associated with oxidising properties.

Organic peroxides

Data for the substance are not available.
The substance does not contain a bivalent group -O-O- with at least one organic radical.

Corrosive to metals

Data for the substance are not available.
The substance is not classified as corrosive to metal.

Desensitised explosives

Data for the substance are not available.
The substance does not contain chemical groups associated with explosive properties.

Amines, C12-14 (even numbered) -alkyldimethyl, N-oxides CAS: 308062-28-4

Explosives

Data for the substance are not available.
The substance does not contain chemical groups associated with explosive properties.

Flammable gases

It is not gas.

Aerosols

It is not aerosol.

Oxidising gases

It is not gas.

Gases under pressure

It is not gas.

Flammable liquids

It is not liquid.

Flammable solids

The substance is not classified as flammable solid (EU method A.10).

Self-reactive substances and mixtures

Data for the substance are not available.
The substance does not contain chemical groups associated with explosive or self-reactive properties.

Pyrophoric liquids

It is not liquid.

Pyrophoric solids

Data for the substance are not available.
The substance is stable in air, there is no spontaneous ignition.

Self-heating substances and mixtures

Data for the substance are not available.
The substance is not classified as self-heating.

Substances and mixtures, which emit flammable gases in contact with water

Data for the substance are not available.
The chemical structure of the substance does not contain metals or metalloids.
The substance is soluble in water and forms a stable mixture with it.

Oxidising liquids

It is not liquid.

Oxidizing solids

Data for the substance are not available.
It is an organic substance that does not contain oxygen, fluorine or chlorine, or these elements are chemically bounded only to carbon or hydrogen.

Organic peroxides

Data for the substance are not available.
The substance does not contain a bivalent group -O-O- with at least one organic radical.

Corrosive to metals

Data for the substance are not available.
The substance is not classified as corrosive to metal.

Desensitised explosives

Data for the substance are not available.
The substance does not contain chemical groups associated with explosive properties.

9.2.2. Other safety characteristics

Mechanical sensitivity	Not determined, it is not an explosive substance.
Self-accelerating polymerisation temperature	Not determined, it is not a polymerising substance.
Formation of explosible dust/air mixtures	Not determined, it is not a dust.
Acid/alkaline reserve	Not determined, pH is in the range 4 - 10.
Evaporation rate	Not determined.
Miscibility	Not determined.
Conductivity	Not determined.
Corrosiveness	Not determined.
Gas group	Not determined, it is not gas.
Redox potential	Not determined.
Radical formation potential	Not determined.
Photocatalytic properties	Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

The mixture is stable under normal conditions of use. There aren´t any hazardous reaction.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions aren´t known under normal conditions of use.

10.4. Conditions to avoid

Protect from temperatures below 0 °C.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

They do not form under normal use. Burning releases carbon oxides, sulphur oxides, hydrogen sulphide, nitrogen oxides, ammonia, chlorine oxides, hydrogen chloride and products of incomplete combustion.

SECTION 11: Toxicological information

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

Mixture

Acute toxicity

The mixture is not classified as toxic for all routes of exposure.

Oral	Data for the mixture are not available. $ATE_{mixture}$ > 2 000 mg/kg (estimate, low concentration of substance classified as toxic oral route of exposure).
Dermal	Data for the mixture are not available. $ATE_{mixture}$ > 2 000 mg/kg (estimate, low concentration of substance classified as toxic dermal route of exposure).
Inhalation	Data for the mixture are not available. $ATE_{mixture}$ > 20 mg/l (estimate, low concentration of substance classified as toxic inhalation route of exposure).

Skin corrosion/irritation

Data for the mixture are not available.

The mixture is not classified as skin irritant based on the general/specific concentration limits of substance(s).

Serious eye damage/irritation

Data for the mixture are not available.

The mixture is classified as eye irritant based on the general/specific concentration limits of substance(s).

Respiratory or skin sensitisation

Data for the mixture are not available.

The mixture is classified as a skin sensitizing category 1A according to the general/specific concentration limits of substance(s).

Germ cell mutagenicity

Data for the mixture are not available.

The mixture does not contain substances classified as mutagenicity or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Carcinogenicity

Data for the mixture are not available.

The mixture does not contain substances classified as carcinogenicity or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Reproductive toxicity

Data for the mixture are not available.

The mixture does not contain substances classified as toxic for reproduction or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

STOT – single exposure

Data for the mixture are not available.

The mixture does not contain substances classified as toxic for specific target organs in a single exposure or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

STOT – repeated exposure

Data for the mixture are not available.

The mixture is not classified as toxic for specific target organs in a repeated exposure according to the general/specific concentration limits of substance(s).

Aspiration hazard

Data for the mixture are not available.

The mixture does not contain substances classified as aspiration hazard or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Other information

See section 2 and 4.

Alcohols, C12-14, ethoxylated, sulfates, sodium salts CAS: 68891-38-3

Acute toxicity

Oral	Based on available data, the classification criteria are not met. LD_{50} = 4 100 mg/kg (rat, OECD 401).
Dermal	Based on available data, the classification criteria are not met. LD_{50} > 2 000 mg/kg (rabbit, OECD 402).
Inhalation	Data for the substance are not available.

Skin corrosion/irritation

The substance is classified as skin irritant.

Mean erythema score = 3.2 and oedema = 3.2 (fully reversible) (rabbit, 72 hrs., OECD 404).

Serious eye damage/irritation

The substance is classified as seriously damaging to the eyes.

Mean score of corneal opacity = 1.3 (not fully reversible after 21 days), iritis = 0.8 (not fully reversible after 21 days), conjunctival redness = 3 (fully reversible), conjunctival edema = 1 (fully reversible) (rabbit, 72 h, OECD 405)

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

Not skin sensitising (guinea pig, OECD 406).

Germ cell mutagenicity

Based on available data, the classification criteria are not met.
Negative (OECD 471, OECD 476).

Carcinogenicity

Data for the substance are not available.

Reproductive toxicity

Based on available data, the classification criteria are not met.
NOAEL = 300 mg/kg/day (systemic effects, rat, oral, generation P0, OECD 416).
NOAEL = 300 mg/kg/day (reproduction, rat, oral, generation P0, OECD 416).
NOAEL = 300 mg/kg/day (rat, oral, generation F1, OECD 416).

STOT – single exposure

Data for the substance are not available.

STOT – repeated exposure

Based on available data, the classification criteria are not met.
NOAEL > 225 mg/kg/day (systemic toxicity, rat, oral, 90 days, OECD 408).

Aspiration hazard

The substance is not a hydrocarbon or a chlorinated hydrocarbon with a kinematic viscosity of 20.5 mm^2/s or less at 40 °C.

Amines, C12-14 (even numbered) -alkyldimethyl, N-oxides CAS: 308062-28-4

Acute toxicity

Oral	The substance is classified in category 4. LD_{50} = 1 064 mg/kg (rat, OECD 401).
Dermal	Based on available data, the classification criteria are not met. LD_{50} > 2 000 mg/kg (rabbit, OECD 402).
Inhalation	Data for the substance are not available.

Skin corrosion/irritation

The substance is classified as skin irritant.
Primary dermal irritation index PDII = 4 (max. 8, not fully reversible after 72 hours), mean erythema score = 4 (not fully reversible after 72 hours), mean oedema score = 0 (rabbit, 72 hrs., OECD 404).

Serious eye damage/irritation

The substance is classified as seriously damaging to the eyes.
Not reversible effect on eyes after 35 days (rabbit, 72 hrs., OECD 405).

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.
Not skin sensitising (guinea pig, OECD 406).

Germ cell mutagenicity

Based on available data, the classification criteria are not met.
Negative (OECD 471, EU method B.17).

Carcinogenicity

Based on available data, the classification criteria are not met.
NOEL = 0.2 % in food (rat, oral, OECD 451).

Reproductive toxicity

Based on available data, the classification criteria are not met.

NOAEL = 100 mg/kg/day (reproductive and development toxicity, rat, oral, generation P0, OECD 422).

STOT – single exposure

Data for the substance are not available.

STOT – repeated exposure

Based on available data, the classification criteria are not met.

NOAEL = 88 mg/kg/day (rat, oral, 90 days, OECD 408).

Aspiration hazard

The substance is not a hydrocarbon or a chlorinated hydrocarbon with a kinematic viscosity of 20.5 mm^2/s or less at 40 °C.

11.2. Information on other hazards

Mixture does not contain substance(s) meets meeting the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII of REACH regulation. The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet and given in the list (established in accordance with Article 59(1) for having endocrine disrupting properties of REACH regulation.

Mixture does not contain the substance(s) identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.There is no other relevant information on adverse health effects that is not required according to the classification criteria set out in CLP Regulation.

SECTION 12: Ecological information

12.1. Toxicity

Mixture

Data for the mixture are not available.

Acute aquatic toxicity

The mixture is not classified as acute aquatic toxicity based on calculation according to the summation method.

category 1	∑ < 0.93

Chronic aquatic toxicity

The mixture is classified as Aquatic Chronic 3; H412 based on calculation according to the summation method.

category	1	2	3	4
∑	< 0.23	< 3.0	< 34.5	not relevant

Alcohols, C12-14, ethoxylated, sulfates, sodium salts CAS: 68891-38-3

The substance is classified as Aquatic Chronic 3; H412.

Fish

LC_{50}, 96 hrs., Danio rerio: 7.1 mg/l (mortality, OECD 203).

NOEC, 28 d., Oncorhynchus mykiss: 0.14 mg/l (mortality and sublethal effects, OECD 204).

Crustaceans

EC_{50}, 48 hrs., Daphnia Magna: 7.4 mg/l (mobility, OECD 202).
NOEC, 21 d., Daphnia Magna: 0.27 mg/l (survival and reproduction, OECD 211).

Algae

EC_{50}, 72 hrs., Desmodesmus subspicatus: 27.7 mg/l (growth rate, OECD 201).
EC_{10}, 72 hrs., Desmodesmus subspicatus: 4.4 mg/l (growth rate, OECD 201).
NOEC, 72 hrs., Desmodesmus subspicatus: 0.95 mg/l (growth rate, OECD 201).

Amines, C12-14 (even numbered) -alkyldimethyl, N-oxides CAS: 308062-28-4

The substance is classified as Aquatic Acute 1; H400 (M = 1) and Aquatic Chronic 2; H411.

Fish

LC_{50}, 96 hrs., Pimephales promelas: 344 mg/l (according to pH value, mortality).
NOEC, 15 d., Pimephales promelas: 23 mg/l (survival and mean length, EPA OPPTS 850.1500).

Crustaceans

EC_{50}, 48 hrs., Daphnia Magna: 3.1 mg/l (mobility, OECD 202).
NOEC, 21 d., Daphnia Magna: 0.7 mg/l (survival and reproduction, OECD 211).

Algae

EC_{50}, 72 hrs., Scenedesmus quadricauda: 0.266 mg/l (growth rate, OECD 201).
EC_{50}, 72 hrs., Scenedesmus quadricauda: 0.205 mg/l (biomass, OECD 201).
NOEC, 72 hrs., Scenedesmus quadricauda: 0.078 mg/l (growth rate, OECD 201).

12.2. Persistence and degradability

Mixture

Data for the mixture are not available.

Alcohols, C12-14, ethoxylated, sulfates, sodium salts CAS: 68891-38-3

Readily biodegradable: 100 % after 28 days (dissolved organic carbon removal, EU method C.4-C).

Amines, C12-14 (even numbered) -alkyldimethyl, N-oxides CAS: 308062-28-4

Readily biodegradable: 90 % after 28 days (CO_2 evolution, OECD 301 B).

12.3. Bioaccumulative potential

Mixture

Data for the mixture are not available.

Alcohols, C12-14, ethoxylated, sulfates, sodium salts CAS: 68891-38-3

log Pow = 0.3 (23 °C, pH = 6.1, OECD 123).

Amines, C12-14 (even numbered) -alkyldimethyl, N-oxides CAS: 308062-28-4

log Pow = 1.85 (C12, calculation).
log Pow = 2.69 (C14, calculation).

12.4. Mobility in soil

Mixture

Data for the mixture are not available.

Alcohols, C12-14, ethoxylated, sulfates, sodium salts CAS: 68891-38-3

Koc = 2.2 (Q)SAR method.

Amines, C12-14 (even numbered) -alkyldimethyl, N-oxides CAS: 308062-28-4

Koc = 307 - > 2 113 (according to kind of soil, OECD 106).

12.5. Results of PBT and vPvB assessment

Mixture does not contain substance(s) meeting the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII of REACH Regulation. The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet (established in accordance with Article 59(1) of REACH Regulation.

12.6. Endocrine disrupting properties

The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet (established in accordance with Article 59(1) of REACH Regulation. Mixture does not contain the substance(s) identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods of the substance or mixture and the contaminated packaging

Dispose according to the applicable European and local regulations (eg. in a hazardous waste incinerator). **Do not empty unused product into drainage systems.** Do not contaminate ponds or ditches with the product or used container. Hand over the residual amounts and solutions to a licensed disposal company.

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Possible waste code

20 01 29* - detergents containing hazardous substances (mixture), 15 01 10* - packaging containing residues of or contaminated by hazardous substances (contaminated packaging).

Physical/chemical properties that may affect waste treatment options

Not known.

Special precautions recommended for waste management

Not known.

Waste legislation

Directive 2008/98/EC on waste and repealing certain Directives, as amended.

SECTION 14: Transport information

This product is not classified as a dangerous for transportation (ADR/RID, IMDG, ICAO/IATA).

14.1. UN number or ID number

Not given.

14.2. UN proper shipping name

Not given.

14.3. Transport hazard class(es)

Not given.

14.4. Packing group

Not given.

14.5. Environmental hazards

It is not dangerous for the environment during transport.

14.6. Special precautions for user

Not given.

14.7. Maritime transport in bulk according to IMO instruments

Not available.

SECTION 15: Regulatory information

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

Regulation No. 1907/2006/EC, concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended (REACH)

Regulation No. 1272/2008/EC, on Classification, Labelling and Packaging of substances and mixtures, as amended (CLP)

Regulation No. 528/2012/EC concerning the making available on the market and use of biocidal products, as amended

Regulation No. 648/2004/EC on detergents, as amended

15.2. Chemical safety assessment

Has not been carried out for mixture.

SECTION 16: Other information

Reason for the revision of the safety data sheet

First edition.

Key or legend to abbreviations and acronyms

Acute Tox. 2	Acute toxicity, cat. 2
Acute Tox. 3	Acute toxicity, cat. 3
Acute Tox. 4	Acute toxicity, cat. 4
Aquatic Acute 1	Acute aquatic hazard, cat. 1
Aquatic Chronic 1	Chronic aquatic hazard, cat. 1
Aquatic Chronic 2	Chronic aquatic hazard, cat. 2
Aquatic Chronic 3	Chronic aquatic hazard, cat. 3
Eye Dam. 1	Serious eye damage, cat. 1
Eye Irrit. 2	Eye irritation, cat. 2
Skin Corr. 1C	Skin corrosion, cat. 1C
Skin Irrit. 2	Skin irritation, cat. 2

Skin Sens. 1A	Skin sensitization, cat. 1A
STOT RE 2	Specific target organ toxicity - repeated exposure, cat. 2
M	Multiplying factor
ADR	Accord Dangereuses Route
CLP	Regulation No. 1272/2008/EC, on Classification, Labelling and Packaging of substances and mixtures
DNEL	Derived No Effect Level
ICAO/IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
PBT	Persistent, bioaccumulative, toxic substance
PNEC	Predicted No Effect Concentration
REACH	Regulation No. 1907/2006/EC, concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulation concerning the International Carriage of Dangerous Goods by Rail
STOT	Specific target organ toxicity
vPvB	Very persistent and very bioaccumulative substance

Sources of key data used to compile the Safety Data Sheet

European legislation, manufacturer's safety data sheet, registration dossier of substances.

List of H- and P- phrases

EUH071	Corrosive to the respiratory tract.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
P102	Keep out of reach of children.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Training advice

According to SDS.

Other information

Classification according to data from the manufacturer. The mixture is classified using calculation methods according to Regulation CLP and tests. Use only for the purposes designated by the manufacturer, will prevent health and environmental risks.

The information in this SDS was obtained from sources, which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

The safety data sheet is created in accordance with Regulation No. 2020/878/EC. There is no additional information in accordance with the local and national legislation of the Member State in the European Union, in the safety data sheet.

The safety data sheet was created by company LACHEPRA s.r.o.