SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

MOBIHEL HYDRO Base MIX

Version	Revision Date:	SDS Number:	Date of last issue: 25.11.2021
2.0	11.01.2024	MAT0GA05_010 GB/EN	Date of first issue: 25.11.2021

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

1.1 Product identifier

Trade name : MOBIHEL HYDRO Base MIX

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

Use of the Sub-stance/Mixture : Coatings and paints, thinners, paint removers

Recommended restrictions on use : Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company : KANSAI HELIOS Slovenija d.o.o.
Količevo 65
1230 Domžale
Slovenia

Telephone Company : 386 (1) 722 4383

Telefax Company : 386 (1) 722 4310

Responsible/issuing person : 386 (1) 722 4383
productsafety@kansai-helios.si

1.4 Emergency telephone number

Call 999 (or 112) for emergency medical attention

professionals only: National Poison Information Service (NPIS) 24h national number 0844 892 0111

consumer: National Health Service (NHS) 24h national number, England & Scotland 111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Serious eye damage, Category 1	H318: Causes serious eye damage.
Reproductive toxicity, Category 1B	H360D: May damage the unborn child.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms :

Signal word : Danger

Hazard statements :
H318 Causes serious eye damage.
H360D May damage the unborn child.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

butan-1-ol
N-methyl-2-pyrrolidone

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No.	Classification	Concentration (% w/w)

	Index-No. Registration number		
2-butoxyethanol	111-76-2 203-905-0 603-014-00-0 01-2119475108-36	Acute Tox. 4; H302 Acute Tox. 3; H331 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 1 - < 10
1-butanol	71-36-3 200-751-6 603-004-00-6 01-2119484630-38	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system)	>= 3 - < 10
1-methyl-2-pyrrolidone	872-50-4 212-828-1 606-021-00-7 01-2119472430-46	Acute Tox. 3; H331 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Repr. 1B; H360D STOT SE 3; H335 (Respiratory system) _____ specific concentration limit STOT SE 3; H335 >= 10 %	>= 1 - < 10
dimethylaminoethanol	108-01-0 203-542-8 603-047-00-0 01-2119492298-24	Flam. Liq. 3; H226 Acute Tox. 4; H302 Acute Tox. 3; H331 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) _____ specific concentration limit STOT SE 3; H335 >= 5 %	>= 0,1 - < 1
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6 01-2120761540-60	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400	>= 0,0025 - < 0,025

			Aquatic Chronic 2; H411 _____ specific concentration limit Skin Sens. 1; H317 >= 0,05 %	
	2-methyl-2H-isothiazol-3-one	2682-20-4 220-239-6 613-326-00-9 01-2120764690-50	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 _____ M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1 _____ specific concentration limit Skin Sens. 1A; H317 >= 0,0015 %	>= 0,0002 - < 0,0015
	mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9 613-167-00-5 01-2120764691-48	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 _____ M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100 _____ specific concentration limit Skin Corr. 1C; H314	>= 0,0002 - < 0,0015

		>= 0,6 % Skin Irrit. 2; H315 0,06 - < 0,6 % Eye Irrit. 2; H319 0,06 - < 0,6 % Skin Sens. 1A; H317 >= 0,0015 % Eye Dam. 1; H318 >= 0,6 %	
Substances with a workplace exposure limit :			
aluminium	7429-90-5 231-072-3 013-002-00-1 01-2119529243-45	Flam. Sol. 1; H228	>= 1 - < 10
titanium dioxide	13463-67-7 236-675-5 01-2119489379-17		>= 1 - < 10

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.

Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Causes serious eye damage.
May damage the unborn child.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO2)

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke.
Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking. Keep in a well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : For further information, refer to the product technical data

sheet.

Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-butoxyethanol	111-76-2	TWA	25 ppm 123 mg/m3	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	50 ppm 246 mg/m3	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		TWA	20 ppm 98 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	50 ppm 246 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
butan-1-ol	71-36-3	STEL	50 ppm 154 mg/m3	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
aluminium	7429-90-5	TWA (inhalable dust)	10 mg/m3	GB EH40
		TWA (Respirable dust)	4 mg/m3	GB EH40
N-methyl-2-pyrrolidone	872-50-4	TWA	10 ppm 40 mg/m3	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	20 ppm 80 mg/m3	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			

		TWA	10 ppm 40 mg/m3	2009/161/EU
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	20 ppm 80 mg/m3	2009/161/EU
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	10 ppm 40 mg/m3	2004/37/EC
	Further information: Skin, Carcinogens or mutagens			
		STEL	20 ppm 80 mg/m3	2004/37/EC
	Further information: Skin, Carcinogens or mutagens			
titanium dioxide	13463-67-7	TWA (inhalable dust)	10 mg/m3	GB EH40
		TWA (Respirable dust)	4 mg/m3	GB EH40
2-dimethylaminoeth-anol	108-01-0	TWA	2 ppm 7,4 mg/m3	GB EH40
		STEL	6 ppm 22 mg/m3	GB EH40

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
2-butoxyethanol	111-76-2	butoxyacetic acid: 240 Millimoles per mole creatinine (Urine)	After shift	GB EH40 BAT

Derived No Effect Level (DNEL):

Substance name	End Use	Exposure routes	Potential health ef-fects	Value
2-butoxyethanol	Workers	Inhalation	Long-term systemic effects	98 mg/m3
	Workers	Inhalation	Acute systemic ef-fects	1091 mg/m3
	Workers	Inhalation	Acute local effects	246 mg/m3
	Consumers	Inhalation	Long-term systemic effects	59 mg/m3
	Consumers	Inhalation	Acute systemic ef-fects	426 mg/m3
	Consumers	Inhalation	Acute local effects	147 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	125 mg/kg bw/day
	Workers	Dermal	Acute systemic ef-fects	89 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	75 mg/kg bw/day

	Consumers	Dermal	Acute systemic effects	89 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	6,3 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	26,7 mg/kg bw/day
butan-1-ol	Workers	Inhalation	Long-term local effects	310 mg/m3
	Consumers	Inhalation	Long-term systemic effects	55,357 mg/m3
	Consumers	Inhalation	Long-term local effects	155 mg/m3
	Consumers	Dermal	Long-term systemic effects	3,125 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	1,562 mg/kg bw/day
aluminium	Workers	Inhalation	Long-term systemic effects	3,72 mg/m3
	Workers	Inhalation	Long-term local effects	3,72 mg/m3
	Consumers	Oral	Long-term systemic effects	3,95 mg/kg bw/day
N-methyl-2-pyrrolidone	Workers	Inhalation	Long-term local effects	40 mg/m3
	Workers	Inhalation	Long-term systemic effects	14,4 mg/m3
	Consumers	Inhalation	Long-term systemic effects	3,6 mg/m3
	Workers	Dermal	Long-term systemic effects	4,8 mg/kg bw/day
	Consumers	Inhalation	Long-term local effects	4,5 mg/m3
	Consumers	Dermal	Long-term systemic effects	2,4 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	0,85 mg/kg bw/day
titanium dioxide	Workers	Inhalation	Long-term local effects	10 mg/m3
	Consumers	Oral	Long-term systemic effects	700 mg/kg bw/day
2-dimethylaminoethanol	Workers	Inhalation	Long-term systemic effects	7,4 mg/m3
	Workers	Inhalation	Acute local effects	22 mg/m3
	Workers	Dermal	Acute local effects	0,08 mg/cm2
	Workers	Dermal	Long-term systemic effects	1,04 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	5 mg/kg bw/day
1,2-benzisothiazol-3(2H)-one	Workers	Inhalation	Long-term systemic effects	6,81 mg/m3
	Workers	Dermal	Long-term systemic	0,966 mg/kg

			effects	bw/day
	Consumers	Inhalation	Long-term systemic effects	1,2 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,345 mg/kg bw/day
reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one and 2-methyl-2H - isothiazol-3- one (3:1)	Consumers	Inhalation	Acute local effects	0,04 mg/m3
	Workers	Inhalation	Long-term local effects	0,02 mg/m3
	Workers	Inhalation	Acute local effects	0,04 mg/m3
	Consumers	Inhalation	Long-term local effects	0,02 mg/m3
	Consumers	Oral	Long-term systemic effects	0,09 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	0,11 mg/kg bw/day

Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment	Value
2-butoxyethanol	Soil	2,33 mg/kg dry weight (d.w.)
	Marine water	0,88 mg/l
	Fresh water	8,8 mg/l
	Fresh water sediment	34,6 mg/kg dry weight (d.w.)
	Sewage treatment plant	463 mg/l
	Intermittent use/release	9,1 mg/l
butan-1-ol	Soil	0,0166 mg/kg dry weight (d.w.)
	Marine water	0,0082 mg/l
	Fresh water	0,082 mg/l
	Marine sediment	0,0324 mg/kg dry weight (d.w.)
	Fresh water sediment	0,324 mg/kg dry weight (d.w.)
	Sewage treatment plant	2476 mg/l
	Intermittent use/release	2,25 mg/l
aluminium	Sewage treatment plant	20 mg/l
N-methyl-2-pyrrolidone	Soil	0,07 mg/kg dry weight (d.w.)
	Marine water	0,025 mg/l
	Fresh water	0,25 mg/l
	Fresh water sediment	1,09 mg/kg dry weight (d.w.)
	Sewage treatment plant	10 mg/l
	Intermittent use/release	5 mg/l
	Marine sediment	0,109 mg/kg dry weight (d.w.)

titanium dioxide	Soil	100 mg/kg dry weight (d.w.)
	Marine water	0,0184 mg/l
	Fresh water	0,184 mg/l
	Marine sediment	100 mg/kg dry weight (d.w.)
	Fresh water sediment	1000 mg/kg dry weight (d.w.)
	Sewage treatment plant	100 mg/l
	Intermittent use/release	0,193 mg/l
2-dimethylaminoethanol	Soil	0,0177 mg/kg dry weight (d.w.)
	Marine water	0,00661 mg/l
	Fresh water	0,0661 mg/l
	Fresh water sediment	0,0529 mg/kg dry weight (d.w.)
	Sewage treatment plant	10 mg/l
	Intermittent use/release	0,0661 mg/l
1,2-benzisothiazol-3(2H)-one	Fresh water	0,00403 mg/l
	Intermittent use/release	0,0011 mg/l
	Marine water	0,000403 mg/l
	Sewage treatment plant	1,03 mg/l
	Fresh water sediment	0,0499 mg/kg dry weight (d.w.)
	Marine sediment	0,00499 mg/kg dry weight (d.w.)
	Soil	3 mg/kg dry weight (d.w.)
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3- one (3:1)	Soil	0,01 mg/kg dry weight (d.w.)
	Marine water	0,00339 mg/l
	Fresh water	0,00339 mg/l
	Marine sediment	0,027 mg/kg dry weight (d.w.)
	Fresh water sediment	0,027 mg/kg dry weight (d.w.)
	Sewage treatment plant	0,23 mg/l
	Intermittent use/release	0,00339 mg/l

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Equipment should conform to EN 166
Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Gloves	:	Nitrile rubber (> 0,1 mm; < 60 min); DIN EN374 butyl-rubber (> 0,6 mm; < 240 min); DIN EN374 Viton® (> 0,6 mm; < 240 min); DIN EN374 PE laminate (> 0,1 mm; < 240 min); DIN EN374
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Filter type	:	Combined particulates and organic vapour type (A-P)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	in accordance with the product description
Odour	:	solvent-like
Odour Threshold	:	No data available
pH	:	Not applicable
Melting point/freezing point	:	0,0 °C (calculation method (principal components, lowest value))
Boiling point/boiling range	:	100 °C (calculation method (principal components, lowest value))
Flash point	:	66 °C
Flammability (solid, gas)	:	Static-accumulating flammable liquid., Combustible Solids
Vapour pressure	:	23 hPa (calculation method (principal components, highest value)) (20 °C)

Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	0,99 - 1,213 g/cm3
Solubility(ies)		
Water solubility	:	immiscible, partly soluble
Solubility in other solvents	:	Description: miscible with most organic solvents
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	No decomposition if stored and applied as directed. Hazardous decomposition products formed under fire conditions.
Viscosity		
Viscosity, kinematic	:	> 20,5 mm2/s (40 °C)
Flow time	:	35 - 45 s at 20 °C Cross section: 4 mm Method: DIN4
Explosive properties	:	Not applicable
Oxidizing properties	:	Not applicable

9.2 Other information

No data available

VOC	:	(Directive 2004/42/EC) 410 g/l

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Incompatible with strong acids and bases.

10.6 Hazardous decomposition products

Adequate ventilation is required.
Heating can release vapours which can be ignited.
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Components:

2-butoxyethanol:

Acute oral toxicity : Acute toxicity estimate: 1.200 mg/kg
Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008

Acute inhalation toxicity : LC50 (Rat): 450 ppm
Exposure time: 4 h
Test atmosphere: vapour
Assessment: The component/mixture is toxic after short term inhalation.

Acute toxicity estimate: 3 mg/l
Test atmosphere: vapour

butan-1-ol:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

LD50 Oral (Rat): > 2.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l

Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

N-methyl-2-pyrrolidone:

Acute oral toxicity : LD50 Oral (Rat): >= 4.150 mg/kg

Acute inhalation toxicity : LC50 (Rat): >= 5,1 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 Dermal (Rat): >= 5.000 mg/kg

2-dimethylaminoethanol:

Acute inhalation toxicity : Assessment: The component/mixture is toxic after short term inhalation.

1,2-benzisothiazol-3(2H)-one:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

2-methylisothiazol-3(2H)-one:

Acute oral toxicity : Assessment: The component/mixture is toxic after single ingestion.

Acute inhalation toxicity : Test atmosphere: vapour
Assessment: The component/mixture is highly toxic after short term inhalation.

Acute dermal toxicity : Assessment: The component/mixture is toxic after single contact with skin.

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks : Extremely corrosive and destructive to tissue.

Components:

2-butoxyethanol:

Result : irritating

butan-1-ol:

Result : irritating

N-methyl-2-pyrrolidone:

Result : irritating

1,2-benzisothiazol-3(2H)-one:
Result : irritating

2-methylisothiazol-3(2H)-one:
Result : Corrosive after 3 minutes to 1 hour of exposure

Serious eye damage/eye irritation
Causes serious eye damage.

Product:
Remarks : May cause irreversible eye damage.

Components:

2-butoxyethanol:
Result : Eye irritation

butan-1-ol:
Result : Corrosive

N-methyl-2-pyrrolidone:
Result : Eye irritation

1,2-benzisothiazol-3(2H)-one:
Result : Corrosive

Respiratory or skin sensitisation

Skin sensitisation
Not classified based on available information.

Respiratory sensitisation
Not classified based on available information.

Components:

1,2-benzisothiazol-3(2H)-one:
Result : Probability or evidence of skin sensitisation in humans

2-methylisothiazol-3(2H)-one:
Result : Probability or evidence of skin sensitisation in humans

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

May damage the unborn child.

Components:

N-methyl-2-pyrrolidone:

Reproductive toxicity - Assessment	:	Clear evidence of adverse effects on sexual function and fertility,and/or on development, based on animal experiments

STOT - single exposure

Not classified based on available information.

Components:

butan-1-ol:

Assessment	:	May cause drowsiness or dizziness.
Assessment	:	May cause respiratory irritation.

N-methyl-2-pyrrolidone:

Assessment	:	May cause respiratory irritation.

2-dimethylaminoethanol:

Assessment	:	May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks	:	No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

2-butoxyethanol:

Toxicity to fish	:	LC50 (Fish): >= 1.700 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia (water flea)): > 1.000 mg/l Exposure time: 48 h
Toxicity to microorganisms	:	EC50 (Bacteria): > 5.000 mg/l

butan-1-ol:

Toxicity to fish	:	LC50 (Fish): > 1.000 mg/l
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia (water flea)): > 1.000 mg/l
Toxicity to microorganisms	:	EC50 (Bacteria): > 1.000 mg/l

1,2-benzisothiazol-3(2H)-one:

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Toxic to aquatic life with long lasting effects.

2-methylisothiazol-3(2H)-one:

M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	1

Ecotoxicology Assessment

Acute aquatic toxicity	:	Very toxic to aquatic life.

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1):

Toxicity to fish	:	LC50 (Salvelinus namaycush (lake trout)): >= 10,85 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	:	LC50 (algae): >= 0,82 mg/l Exposure time: 48 h LC50 (algae): 0,018 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	100
M-Factor (Chronic aquatic toxicity)	:	100

12.2 Persistence and degradability

Components:

2-butoxyethanol:

Biodegradability	:	Result: Biodegradable
Stability in water	:	Remarks: Hydrolyses slowly.
Photodegradation	:	Remarks: Decomposes slowly in contact with light.

2-methylisothiazol-3(2H)-one:

Biodegradability	:	Result: Biodegradable

12.3 Bioaccumulative potential

Components:

2-butoxyethanol:

Partition coefficient: n-octanol/water	:	log Pow: 0,81 (20 °C)

butan-1-ol:

Partition coefficient: n-octanol/water	:	log Pow: 0,785

N-methyl-2-pyrrolidone:

Partition coefficient: n-octanol/water	:	log Pow: -0,46

2-dimethylaminoethanol:

Partition coefficient: n-octanol/water	:	log Pow: -0,55

1,2-benzisothiazol-3(2H)-one:

Partition coefficient: n-octanol/water	:	log Pow: 1,3

12.4 Mobility in soil

Components:

2-butoxyethanol:

Mobility	:	Medium: Air Content: 1 %
	:	Medium: Water Content: 47 %

: Medium: Soil
Content: 52 %

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

2-butoxyethanol:

Assessment : Substance is not persistent, bioaccumulative, and toxic (PBT).

12.6 Other adverse effects

Product:

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA	:	Not regulated as a dangerous good

14.2 UN proper shipping name

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA	:	Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA	:	Not regulated as a dangerous good

14.4 Packing group

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA (Cargo)	:	Not regulated as a dangerous good
IATA (Passenger)	:	Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)	:	Conditions of restriction for the following entries should be considered: Number on list 3 N-methyl-2-pyrrolidone (Number on list 72, 71, 30)
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	:	N-methyl-2-pyrrolidone
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable
GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation	:	Not applicable
Control of Major Accident Hazards Regulations 2015 (COMAH)		Not applicable
Volatile organic compounds	:	Directive 2004/42/EC Volatile organic compounds (VOC) content: 410 g/l

Other regulations:

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to new and expectant mothers at work contained in Regulation 16 to 18) and of the Pregnant Workers Directive 92/85/EEC.

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of H-Statements

H226	:	Flammable liquid and vapour.
H228	:	Flammable solid.
H301	:	Toxic if swallowed.
H302	:	Harmful if swallowed.
H310	:	Fatal in contact with skin.
H311	:	Toxic in contact with skin.

H312	:	Harmful 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.
H331	:	Toxic if inhaled.
H335	:	May cause respiratory irritation.
H336	:	May cause drowsiness or dizziness.
H360D	:	May damage the unborn child.
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.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Flam. Sol.	:	Flammable solids
Repr.	:	Reproductive toxicity
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT SE	:	Specific target organ toxicity - single exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
2004/37/EC	:	Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
2009/161/EU	:	Europe. COMMISSION DIRECTIVE 2009/161/EU establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT	:	UK. Biological monitoring guidance values
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit
2004/37/EC / STEL	:	Short term exposure limit
2004/37/EC / TWA	:	Long term exposure limit
2009/161/EU / TWA	:	Limit Value - eight hours
2009/161/EU / STEL	:	Short term exposure limit
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard

of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:		**Classification procedure:**
Eye Dam. 1	H318	Calculation method
Repr. 1B	H360D	Calculation method

400929; 400996; 401107; 401194; 401196; 470600; 470601; 470608; 470610; 470612; 470613; 470614; 470616; 470617; 470618; 470619; 470621; 470622; 470625; 470626; 470627; 470628; 470629; 470630; 470631; 470632; 470633; 470641; 470642; 470643; 470644; 470645; 470646; 470651; 470652; 470661; 470662; 470663; 470665; 470700; 470701; 470702; 470703; 470704; 470705; 470706; 470708; 470715; 470720; 470721; 470722; 470730; 470740; 470750; 470751; 470752; 470753; 470760; 470770; 470771; 470772; 470780; 470781; 470795; 470796; 470800; 470801; 470802; 470803; 470804; 470805

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not

to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB / EN