Safety Data Sheet

acc. to The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)

MB ActiveCube

Version number: 10.0
Replaces version of: 2017-02-02 (5)

Revision: 2025-05-30
First version: 2011-09-14

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

1.1 Product identifier

Trade name **MB ActiveCube**

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

Relevant identified uses WC bowl stones for urinals

1.3 Details of the supplier of the safety data sheet

URIMAT Schweiz AG
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Please do not use this e-mail address to ask for the latest safety data sheet. For this purpose contact URIMAT Schweiz AG.

1.4 Emergency telephone number

As above or nearest toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Classification				
Section	**Hazard class**	**Category**	**Hazard class and category**	**Hazard statement**
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.4S	skin sensitisation	1	Skin Sens. 1	H317
4.1C	hazardous to the aquatic environment - chronic hazard	3	Aquatic Chronic 3	H412

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word danger

Pictograms

GHS05, GHS07

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and 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.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous ingredients for labelling

reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide
limonene
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl
linalool
subtilisin

Additional labelling requirements see section 15 of the safety data sheet

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture).

3.2 Mixtures

Description of the mixture

Hazardous ingredients

Name of substance	Identifier	Wt%	Classification acc. to GHS	Notes
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	EC No 932-051-8 REACH Reg. No 01-2119565112-48-xxxx	25 – < 50	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Aquatic Chronic 3 / H412	-
C16-18 alcohols, ethoxylated	CAS No 68439-49-6	1 – < 3	Eye Irrit. 2 / H319 Aquatic Chronic 3 / H412	-
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	CAS No 90622-77-8 EC No 292-481-0 REACH Reg. No 01-2119489413-33-xxxx	1 – < 3	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Aquatic Chronic 2 / H411	-
limonene	CAS No 138-86-3 EC No 205-341-0 Index No 601-029-00-7	1 – < 3	Flam. Liq. 3 / H226 Skin Irrit. 2 / H315 Skin Sens. 1 / H317 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	C GHS-HC
subtilisin	CAS No 9014-01-1 EC No 232-752-2 Index No 647-012-00-8	0.3 – < 1	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Resp. Sens. 1 / H334 STOT SE 3 / H335	GHS-HC
linalool	CAS No 78-70-6 EC No 201-134-4 Index No	0.1 – < 0.3	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Skin Sens. 1B / H317	GHS-HC

Hazardous ingredients				
Name of substance	**Identifier**	**Wt%**	**Classification acc. to GHS**	**Notes**
	603-235-00-2			

Notes

C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
limonene	-	M-factor (acute) = 1 M-factor (chronic) = 1	-	-

Remarks

For full text of H-phrases: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Self-protection of the first aider.
Remove affected person from the danger area and lay down.
Do not leave affected person unattended.
Take off immediately all contaminated clothing.
In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air.
If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following skin contact

Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

Following eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion

Rinse mouth. Do not induce vomiting.
Get medical advice/attention if you feel unwell.

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

This information is not available.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water, foam, alcohol resistant foam, fire extinguishing powder, co-ordinate firefighting measures to the fire surroundings

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.
Deposited combustible dust has considerable explosion potential.

Hazardous combustion products

carbon monoxide (CO), carbon dioxide (CO_2), sulphur oxides (SO_x)

5.3 Advice for firefighters

Non-combustible.
Keep containers cool with water spray.
In case of fire and/or explosion do not breathe fumes.
Co-ordinate firefighting measures to the fire surroundings.
Do not allow firefighting water to enter drains or water courses.
Collect contaminated firefighting water separately.
Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Self-contained breathing apparatus (EN 133)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.
Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water.
Retain contaminated washing water and dispose of it.
If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.
Take up mechanically.

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal.
Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5.
Personal protective equipment: see section 8.
Incompatible materials: see section 10.
Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not get in eyes, on skin, or on clothing.
Do not breathe dust.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.
Take precautionary measures against static discharge.
Removal of dust deposits.
Ground/bond container and receiving equipment.

Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room.

Handling of incompatible substances or mixtures

Do not mix with acids.

Measures to protect the environment

Avoid release to the environment.
Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.
Wash hands after use.
Preventive skin protection (barrier creams/ointments) is recommended.
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Flammability hazards

None.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Protect against external exposure, such as

humidity

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

General rule

Keep out of reach of children.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Keep container tightly closed and in a well-ventilated place.

Packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Notation	Source
GB	dust	-	WEL	-	10	-	-	i	EH40/2005
GB	dust	-	WEL	-	4	-	-	r	EH40/2005
GB	subtilisin (bacillus subtilis carlsberg)	9014-01-1	WEL	-	0.00004	-	-	-	EH40/2005

Notation

i	inhalable fraction
r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Human health values

Relevant DNELs of components

Name of substance	CAS No	EC No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
reaction product	-	932-	DNEL	6 mg/m³	human, inhal-	worker (in-	chronic - sys-

Relevant DNELs of components

Name of substance	CAS No	EC No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide		051-8			atory	dustry)	temic effects
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	DNEL	85 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	DNEL	73.4 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	DNEL	4.16 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	DNEL	93.6 µg/cm²	human, dermal	worker (industry)	chronic - local effects
linalool	78-70-6	201-134-4	DNEL	24.58 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
linalool	78-70-6	201-134-4	DNEL	3.5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Environmental values

Relevant PNECs of components

Name of substance	CAS No	EC No	Endpoint	Threshold level	Environmental compartment
reaction product of Ben-	-	932-051-8	PNEC	0.268 $^{mg}/_{l}$	freshwater

Relevant PNECs of components

Name of substance	CAS No	EC No	Endpoint	Threshold level	Environmental compartment
zenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide					
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	PNEC	0.027 $^{mg}/_{l}$	marine water
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	PNEC	5.6 $^{mg}/_{l}$	sewage treatment plant (STP)
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	PNEC	8.1 $^{mg}/_{kg}$	freshwater sediment
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	PNEC	8.1 $^{mg}/_{kg}$	marine sediment
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	PNEC	35 $^{mg}/_{kg}$	soil
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	PNEC	0.007 $^{mg}/_{l}$	freshwater
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	PNEC	0.001 $^{mg}/_{l}$	marine water
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	PNEC	830 $^{mg}/_{l}$	sewage treatment plant (STP)
amides, C12-18(even-numbered) and C18(un-	90622-77-8	292-481-0	PNEC	1.201 $^{mg}/_{kg}$	freshwater sediment

Relevant PNECs of components					
Name of substance	**CAS No**	**EC No**	**Endpoint**	**Threshold level**	**Environmental compartment**
satd.), N-hydroxyethyl					
amides, C12-18(even-numbered) and C18(un-satd.), N-hydroxyethyl	90622-77-8	292-481-0	PNEC	0.12 mg/kg	marine sediment
subtilisin	9014-01-1	232-752-2	PNEC	1.7 µg/l	freshwater
subtilisin	9014-01-1	232-752-2	PNEC	0.17 µg/l	marine water
subtilisin	9014-01-1	232-752-2	PNEC	65,000 µg/l	sewage treatment plant (STP)
subtilisin	9014-01-1	232-752-2	PNEC	568 µg/kg	soil
linalool	78-70-6	201-134-4	PNEC	0.2 mg/l	freshwater
linalool	78-70-6	201-134-4	PNEC	0.02 mg/l	marine water
linalool	78-70-6	201-134-4	PNEC	10 mg/l	sewage treatment plant (STP)
linalool	78-70-6	201-134-4	PNEC	2.22 mg/kg	freshwater sediment
linalool	78-70-6	201-134-4	PNEC	0.222 mg/kg	marine sediment
linalool	78-70-6	201-134-4	PNEC	0.327 mg/kg	soil

8.2 Exposure controls

Appropriate engineering controls

Use local and general ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

short-term (single instance): not required
fill and mix: Use safety goggle with side protection (EN 166)

Hand protection

Protective gloves		
Material	**Material thickness**	**Breakthrough times of the glove material**
no information available	no information available	no information available

Wear suitable gloves.
Chemical protection gloves are suitable, which are tested according to EN 374.
Check leak-tightness/impermeability prior to use.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Body protection

Protective clothing for use against solid particulates.
(EN 13832, EN 340, EN 13034, EN 14605).

Respiratory protection

In case of inadequate ventilation wear respiratory protection.
Particle filter device (DIN EN 143).

Environmental exposure controls

Use appropriate container to avoid environmental contamination.
Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid
Colour	blue
Odour	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	not determined
Flammability	non-combustible
Lower and upper explosion limit	not applicable (solid)
Flash point	not applicable
Auto-ignition temperature	not applicable (solid)
Decomposition temperature	not relevant
pH (value)	>11
Viscosity	not relevant (solid)
Solubility(ies)	
Water solubility	not miscible in any proportion
Partition coefficient n-octanol/water (log value)	not determined
Vapour pressure	not determined
Density and/or relative density	
Density	not determined
Relative vapour density	not relevant (solid)

Particle characteristics	no data available

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

Do not mix with acids.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

acids, oxidisers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.
Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

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

Classification procedure

If not otherwise specified the classification is based on:
Ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Test data are not available for the complete mixture.

Acute toxicity of components

Name of substance	CAS No	EC No	Exposure route	End-point	Value	Species	Method	Source
reaction product of	-	932-051-8	oral	LD50	2,240	rat	OECD	ECHA

Acute toxicity of components

Name of substance	CAS No	EC No	Exposure route	End-point	Value	Species	Method	Source
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide					$^{mg}/_{kg}$		Guideline 401	
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	dermal	LD0	>2,000 $^{mg}/_{kg}$	rat	OECD Guideline 402	ECHA
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	oral	LD50	>2,000 $^{mg}/_{kg}$	rat	-	ECHA
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	dermal	LD50	>2,000 $^{mg}/_{kg}$	rabbit	-	ECHA
limonene	138-86-3	205-341-0	oral	LD50	5,300 $^{mg}/_{kg}$	rat	-	Food and Cosmetics Toxicology., 12(703), 1974
limonene	138-86-3	205-341-0	dermal	LD50	>5,000 $^{mg}/_{kg}$	rabbit	-	Food and Cosmetics Toxicology. Vol. 13, Pg. 825, 1975
linalool	78-70-6	201-134-4	dermal	LD50	5,610 $^{mg}/_{kg}$	rabbit	OECD Guideline 402	ECHA

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

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

Aquatic toxicity (acute) of components

Name of substance	CAS No	EC No	Endpoint	Exposure time	Value	Species	Method	Source
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-	-	932-051-8	EC50	48 h	8.8 $^{mg}/_{l}$	daphnia magna	OECD Guideline 202	ECHA

Name of substance	CAS No	EC No	Endpoint	Exposure time	Value	Species	Method	Source
methyl- and sodium hydroxide								
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	ErC50	72 h	72 $^{mg}/_{l}$	algae (Desmodesmus subspicatus)	OECD Guideline 201	ECHA
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	LC50	96 h	3.94 $^{mg}/_{l}$	daphnia magna	OECD Guideline 211	ECHA
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	LC50	96 h	31 $^{mg}/_{l}$	zebra fish (Danio rerio)	-	-
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	EC50	24 h	37.5 $^{mg}/_{l}$	daphnia magna	-	-
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	EbC50	72 h	1.1 $^{mg}/_{l}$	algae (Desmodesmus subspicatus)	-	-
amides, C12-18(even-numbered)	90622-77-8	292-481-0	ErC50	72 h	8.7 $^{mg}/_{l}$	algae (Desmodesmus subspicatus)	-	-

Name of substance	CAS No	EC No	Endpoint	Exposure time	Value	Species	Method	Source
and C18(unsatd.), N-hydroxyethyl								
limonene	138-86-3	205-341-0	EC50	48 h	17 $^{mg}/_{l}$	aquatic invertebrates	-	Environmental Fate and Effects Division, U.S.EPA
limonene	138-86-3	205-341-0	LC50	96 h	38.5 $^{mg}/_{l}$	fathead minnow (Pimephales promelas)	-	Concise International Chemical Assessment Documents Number 5: Limonene p.16 (1998)
linalool	78-70-6	201-134-4	LC50	96 h	27.8 $^{mg}/_{l}$	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 203	ECHA
linalool	78-70-6	201-134-4	EC50	48 h	59 $^{mg}/_{l}$	daphnia magna	OECD Guideline 202	ECHA
linalool	78-70-6	201-134-4	ErC50	96 h	156.7 $^{mg}/_{l}$	algae (Desmodesmus subspicatus)	DIN 38412 L 9	ECHA
linalool	78-70-6	201-134-4	EbC50	96 h	88.3 $^{mg}/_{l}$	algae (Desmodesmus subspicatus)	DIN 38412 T.9	ECHA

Aquatic toxicity (chronic)

Harmful to aquatic life with long lasting effects.

Aquatic toxicity (chronic) of components

Name of substance	CAS No	EC No	Endpoint	Exposure time	Value	Species	Method	Source
reaction product of	-	932-051-8	LC50	21 d	1.67 $^{mg}/_{l}$	daphnia magna	OECD Guideline	ECHA

Name of substance	CAS No	EC No	Endpoint	Exposure time	Value	Species	Method	Source
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide							211	
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	EC50	21 d	1.5 $^{mg}/_{l}$	daphnia magna	OECD Guideline 211	ECHA
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	EC50	17 h	63 $^{mg}/_{l}$	activated sludge (Pseudomonas putida)	DIN 38412-8	ECHA
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	NOEC	72 d	0.23 $^{mg}/_{l}$	rainbow trout (Oncorhynchus mykiss)	-	ECHA
reaction product of Benzenesulf-	-	932-051-8	NOEC	21 d	1.18 $^{mg}/_{l}$	daphnia magna	OECD Guideline 211	ECHA

Name of substance	CAS No	EC No	Endpoint	Exposure time	Value	Species	Method	Source
onic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide								
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	NOEC	72 h	1.5 $^{mg}/_{l}$	algae (Desmodesmus subspicatus)	OECD Guideline 201	ECHA
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	growth (EbCx) 10%	72 h	5.6 $^{mg}/_{l}$	algae (Desmodesmus subspicatus)	OECD Guideline 201	ECHA
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	growth (EbCx) 10%	17 h	56 $^{mg}/_{l}$	activated sludge (Pseudomonas putida)	DIN 38412-8	ECHA
reaction product of Benzenesulfonic acid, 4-	-	932-051-8	growth rate (ErCx) 10%	72 h	8.4 $^{mg}/_{l}$	algae (Desmodesmus subspicatus)	OECD Guideline 201	ECHA

Name of substance	CAS No	EC No	Endpoint	Exposure time	Value	Species	Method	Source
C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide								
linalool	78-70-6	201-134-4	EC50	30 min	>100 mg/l	activated sludge of a predominantly domestic sewage	OECD Guideline 209	ECHA
linalool	78-70-6	201-134-4	growth (EbCx) 10%	96 h	38.4 mg/l	algae (Desmodesmus subspicatus)	DIN 38412 T.9	ECHA
linalool	78-70-6	201-134-4	growth (EbCx) 10%	3 h	>100 mg/l	activated sludge of a predominantly domestic sewage	OECD Guideline 209	ECHA
linalool	78-70-6	201-134-4	growth rate (ErCx) 10%	96 h	54.3 mg/l	algae (Desmodesmus subspicatus)	DIN 38412 T.9	ECHA

12.2 Persistence and degradability

Biodegradation

Test data are not available for the complete mixture.

Degradability of components

Name of substance	CAS No	EC No	Process	Degradation rate	Time	Method	Source
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	DOC removal	94 %	28 d	EU method C.4-A	ECHA

Name of substance	CAS No	EC No	Process	Degradation rate	Time	Method	Source
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	oxygen depletion	74 – 82 %	30 d	-	-
limonene	138-86-3	205-341-0	oxygen depletion	73 %	14 d	OECD 301 C	NITE (2015)
subtilisin	9014-01-1	232-752-2	carbon dioxide generation	100 %	29 d	OECD 301 B	ECHA
subtilisin	9014-01-1	232-752-2	carbon dioxide generation	60 %	7 d	OECD 301 B	ECHA
linalool	78-70-6	201-134-4	oxygen depletion	64.2 %	28 d	OECD Guideline 301 D	ECHA

Persistence

No data available.

12.3 Bioaccumulative potential

Bioaccumulative potential of components

Name of substance	CAS No	EC No	BCF	Log KOW
reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide	-	932-051-8	-	0.7 (pH value: 6, 20 °C)
amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl	90622-77-8	292-481-0	56.8	4.3 (25 °C)
limonene	138-86-3	205-341-0	-	4.5 (25 °C)
subtilisin	9014-01-1	232-752-2	-	-3.1 (pH value: 9.2, 25 °C)
linalool	78-70-6	201-134-4	-	2.9 (pH value: 7, 20 °C)

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

12.7 Other adverse effects

Data are not available.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): 2.
Keep away from drains, surface and ground water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

Completely emptied packages can be recycled.
Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1	**UN number or ID number**	not subject to transport regulations
14.2	**UN proper shipping name**	-
14.3	**Transport hazard class(es)**	-
14.4	**Packing group**	-
14.5	**Environmental hazards**	-
14.6	**Special precautions for user**	-
14.7	**Maritime transport in bulk according to IMO instruments**	-

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Seveso Directive

Not assigned.

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

None of the ingredients are listed.

Regulation 648/2004/EC on detergents

Labelling of contents	
Wt%	**Constituents**
≥30%	anionic surfactants
< 5 %	non-ionic surfactants
-	enzymes (subtilisin) perfumes (LIMONENE, LINALOOL)

Regulation on the marketing and use of explosives precursors

None of the ingredients are listed.

Regulation on drug precursors

None of the ingredients are listed.

Regulation on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

Regulation concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

National regulations (GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

None of the ingredients are listed

Restrictions according to GB REACH, Annex 17

Dangerous substances with restrictions (GB REACH, Annex 17)			
Name of substance	**Name acc. to inventory**	**CAS No**	**Conditions of restriction**
limonene	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC	-	R3
limonene	flammable / pyrophoric	-	R40
linalool	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC	-	R3

Legend

R3 1. Shall not be used in:

Legend

— ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
— tricks and jokes,
— games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
2. Articles not complying with paragraph 1 shall not be placed on the market.
3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
— can be used as fuel in decorative oil lamps for supply to the general public, and,
— present an aspiration hazard and are labelled with R65 or H304,
4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the British Standard Specification on Decorative oil lamps (BS EN 14059) adopted by the British Standards Institute.
5. Without prejudice to the implementation of other legislation relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
(a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010 'Just a sip of lamp oil
— or even sucking the wick of lamps
— may lead to life-threatening lung damage';
(b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as
follows: 'Just a sip of grill lighter may lead to life-threatening lung damage';
(c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.

7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the Agency.

R40 1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:
— metallic glitter intended mainly for decoration,
— artificial snow and frost,
— 'whoopee' cushions,
— silly string aerosols,
— imitation excrement,
— horns for parties,
— decorative flakes and foams,
— artificial cobwebs,
— stink bombs.
2. Without prejudice to the application of other legislation on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:
'For professional users only'.
3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (***).
4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.
(***) OJ L 147, 9.6.1975, p. 40.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
2.1	-	Classification: change in the listing (table)
2.2	Signal word: warning	Signal word: danger
2.2	-	Pictograms: change in the listing (table)
2.2	-	Hazard statements: change in the listing (table)
2.2	-	Precautionary statements: change in the listing (table)
2.2	Hazardous ingredients for labelling: limonene linalool subtilisin	Hazardous ingredients for labelling: reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide limonene amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl linalool subtilisin
8.2	Body protection: Long-term (repeated): Protective clothing for use against solid particulates. (EN 13832, EN 340, EN 14605).	Body protection: Protective clothing for use against solid particulates. (EN 13832, EN 340, EN 13034, EN 14605).

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level

Abbr.	Descriptions of used abbreviations
EbC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals

Abbr.	Descriptions of used abbreviations
Resp. Sens.	Respiratory sensitisation
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).
Regulations concerning the International Carriage of Dangerous Goods by Rail (RID).
International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties.
Health hazards.
Environmental hazards.
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
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.

Responsible for the safety data sheet

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Disclaimer

This information is based upon the present state of our knowledge.
This SDS has been compiled and is solely intended for this product.