



Safety Data Sheet according to (EC) No 1907/2006 as amended

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Brilliance Luminance 860

SDS No. : 596638
V001.2

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

1.1. Product identifier

Brilliance Luminance 860

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

Intended use:

Hair Color/Toner, oxidative dyes

1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA
Düsseldorf Germany
Henkelstr. 67
40191 Düsseldorf
Phone: +49 211-797-0

E-mail address of person responsible for Safety Data Sheet:

Henkel Cosmetics, e-mail: astrid.kleen@henkel.com

1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

Further information is available at Poison Control Centers.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin irritation	Category 2
Causes skin irritation.	
Serious eye damage	Category 1
Causes serious eye damage.	
Skin sensitizer	Category 1
May cause an allergic skin reaction.	
Chronic hazards to the aquatic environment	Category 3
Harmful to aquatic life with long lasting effects.	

2.2. Label elements (CLP)

Hazard pictogram:



Signal word:	Danger
Hazard statement:	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 statement: Prevention	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves.
Precautionary statement: Response	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor.

SECTION 3: Composition/information on ingredients

3.1. Substances

3.2. Mixtures

Hazardous substances according to CLP (EC) No 1272/2008:

Hazardous substances CAS-No.	EINECS	REACH-Reg No.	Content	Classification
2-amino-2-methylpropanol 124-68-5	204-709-8	01-2119475788-16	>= 2,5- < 10 %	H315 Skin irritation 2 H319 Serious eye irritation 2 H412 Chronic hazards to the aquatic environment 3
Alcohols, C12-18 67762-25-8	267-006-5	01-2119485905-24 01-2119485907-20 01-2119485910-33 01-2119485976-15	>= 2,5- < 10 %	H400 Acute hazards to the aquatic environment 1 H411 Chronic hazards to the aquatic environment 2 H319 Serious eye irritation 2
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	500-234-8	01-2119488639-16	>= 2,5- < 3 %	H315 Skin irritation 2; Dermal H318 Serious eye damage 1 H412 Chronic hazards to the aquatic environment 3
Ammonium hydroxide ((NH ₄)(OH)) 1336-21-6	215-647-6	01-2119488876-14	>= 2,5- < 3 %	H290 Corrosive to metals 1 H314 Skin corrosion 1B H400 Acute hazards to the aquatic environment 1 H411 Chronic hazards to the aquatic environment 2 H318 Serious eye damage 1
1-(2-hydroxyethyl)-1H-pyrazol-4,5- diyldiammoniumsulfate 155601-30-2		01-0000017559-58	>= 1- < 2,5 %	H318 Serious eye damage 1 H317 Skin sensitizer 1 H411 Chronic hazards to the aquatic environment 2
Siloxanes and Silicones, di-Me, hydrogen- terminated, polymers with polyethylene glycol bis(2-methyl-2-propen-1-yl) ether, 3- [3]-bis(1253692-80-6			>= 1- < 10 %	H315 Skin irritation 2 H319 Serious eye irritation 2
Potassium hydroxide 1310-58-3	215-181-3	01-2119487136-33	>= 0,5- < 1 %	H314 Skin corrosion 1A H302 Acute toxicity 4; Oral H290 Corrosive to metals 1
6-methoxy-N2-methylpyridine-2,3-diamine dihydrochloride 83732-72-3	280-622-9		>= 0,1- < 0,25 %	H302 Acute toxicity 4; Oral H317 Skin sensitizer 1 H318 Serious eye damage 1 H400 Acute hazards to the aquatic environment 1 H410 Chronic hazards to the aquatic environment 1

For full text of the H - Phrases indicated by codes only see Section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

Remove casualty immediately from danger zone. Take off immediately all contaminated clothing.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth and throat. Drink 1-2 glasses of water. Seek medical advice.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

The release of following substances is possible in case of fire:

carbon oxides.

nitrogen oxides

Hydrogen chloride.

Sulphur oxides

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

Additional information:

Dispose of combustion residues and contaminated fire-fighting water in accordance with statutory regulations.

Collect contaminated fire fighting water separately. It must not enter drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

Inform authorities in the event of product spillage to water courses or sewage systems.

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (chemical binder)

Dilute small quantities with large amount of water and rinse.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling advice:

Avoid skin and eye contact.

Fire and explosion protection information:

No special measures required if used properly.

Hygiene measures:

Do not eat, drink or smoke while working.

Immediately remove soiled or soaked clothing.

Wash hands before work breaks and after finishing work.

Keep away from food, beverages and animal feed.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container protected against moisture.

Store far from foodstuffs.

7.3. Specific end use(s)

Hair Color/Toner, oxidative dyes

SECTION 8: Exposure controls/personal protection

Only relevant for professional/industrial use

8.1. Control parameters

Valid for

Germany

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Remarks
2-Amino-2-methylpropanol 124-68-5	1	3,7	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
2-Amino-2-methylpropanol 124-68-5			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
2-Amino-2-methylpropanol 124-68-5			Skin designation:	Can be absorbed through the skin.	TRGS 900
AMMONIA, ANHYDROUS 1336-21-6	50	36	Short Term Exposure Limit (STEL):	Indicative	ECLTV
AMMONIA, ANHYDROUS 1336-21-6	20	14	Time Weighted Average (TWA):	Indicative	ECLTV
Ammonia, aqueous solution 1336-21-6			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Ammonia, aqueous solution 1336-21-6	20	14	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900

8.2. Exposure controls

Engineering controls:

Ensure good ventilation/suction at the workplace.

Respiratory protection:

Not needed.

Hand protection:

For the contact with product protective gloves made from Spezial-Nitril (material thickness > 0.1 mm, break through time > 480 min class 6) are recommended according to EN 374. In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. We recommend to change single-use protective gloves periodical and a hand care plan in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Manufacturer e.g. German company KCL, type Dermatril.

Eye protection:

Protective goggles

Skin protection:

Suitable protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The following data apply to the whole mixture:

Appearance	cream viscous light beige
Odor	ammoniacal, floral, fruity
pH (20 °C (68 °F))	9,90 - 10,95
Initial boiling point	Not applicable
Flash point	Not applicable
Decomposition temperature	Not applicable
Vapour pressure	Not applicable
Density (20 °C (68 °F))	0,980 - 1,030 g/cm ³
Bulk density	Not applicable
Viscosity (Haake; Instrument: Haake VT 550; 20 °C (68 °F); speed of rotation: 8 min ⁻¹ ; Rotary measuring system: SV I)	8.000 - 50.000 mPa.s
Viscosity (kinematic)	Not applicable
Explosive properties	Not applicable
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Partially soluble
Solidification temperature	Not applicable
Melting point	Not applicable
Flammability	Not applicable
Auto-ignition temperature	Not applicable
Explosive limits	Not applicable
Partition coefficient: n-octanol/water	Not applicable
Evaporation rate	Not applicable
Vapor density	Not applicable
Oxidising properties	Not applicable
Container pressure	Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

10.2. Chemical stability

None known.

10.3. Possibility of hazardous reactions

See section reactivity

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information**General toxicological information:**

The present product is a chemical preparation within the meaning of the chemicals act. The following evaluation has been made on the basis of the toxicological data and content by weight of the individual ingredients.

11.1. Information on toxicological effects**Acute oral toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
2-amino-2-methylpropanol 124-68-5	LD50	2.900 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Alcohols, C12-18 67762-25-8	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	LD50	2.870 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
1-(2-hydroxyethyl)-1H- pyrazol-4,5- diyldiammoniumsulfate 155601-30-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Potassium hydroxide 1310-58-3	LD50	388 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
6-methoxy-N2- methylpyridine-2,3- diamine dihydrochloride 83732-72-3	LD50	650 mg/kg	rat	not specified

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
2-amino-2-methylpropanol 124-68-5	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Alcohols, C12-18 67762-25-8	slightly irritating		human	Burckhardt Test
Alcohols, C12-18 67762-25-8	irritating	4 h	rabbit	EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Potassium hydroxide 1310-58-3	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Alcohols, C12-18 67762-25-8	irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Alcohols, C12-18 67762-25-8	slightly irritating	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	highly irritating	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Potassium hydroxide 1310-58-3	corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
6-methoxy-N2- methylpyridine-2,3- diamine dihydrochloride 83732-72-3	highly irritating			Expert judgement

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
2-amino-2- methylpropanol 124-68-5	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Potassium hydroxide 1310-58-3	not sensitising	Intracutaneous test	guinea pig	Landsteiner & Jacobs Method
6-methoxy-N2- methylpyridine-2,3- diamine dihydrochloride 83732-72-3	sensitising	Mouse local lymphnode assay (LLNA)	mouse	not specified

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-amino-2-methylpropanol 124-68-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-amino-2-methylpropanol 124-68-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Alcohols, C12-18 67762-25-8	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Henkel Method
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Potassium hydroxide 1310-58-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
6-methoxy-N2- methylpyridine-2,3- diamine dihydrochloride 83732-72-3	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
2-amino-2- methylpropanol 124-68-5	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	negative	oral: gavage		mouse	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
6-methoxy-N2- methylpyridine-2,3- diamine dihydrochloride 83732-72-3	negative	oral: gavage		rat	not specified

Carcinogenicity

No data available.

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
2-amino-2-methylpropanol 124-68-5	NOAEL P > 100 mg/kg	screening	oral: feed	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	NOAEL P 300 mg/kg NOAEL F1 300 mg/kg	Two generation study	oral: drinking water	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
2-amino-2-methylpropanol 124-68-5	NOAEL < 500 mg/kg	oral: gavage	90 days 5 days per week	rat	not specified
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	NOAEL 225 mg/kg	oral: gavage	90 days once daily, 5 times a week	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Ammonium hydroxide ((NH ₄)(OH)) 1336-21-6	NOAEL 135 mg/kg	oral: gavage	4 w daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
6-methoxy-N2- methylpyridine-2,3- diamine dihydrochloride 83732-72-3	NOAEL 50 mg/kg	oral: gavage	90 days daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
6-methoxy-N2- methylpyridine-2,3- diamine dihydrochloride 83732-72-3	NOAEL 80 mg/kg	oral: gavage	28 days daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

The ecological evaluation of the product is based on data from the raw material and/or comparable substances.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-amino-2-methylpropanol 124-68-5	LC50	190 mg/l	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Alcohols, C12-18 67762-25-8	LC50	1,01 mg/l	96 h	Pimephales promelas	EPA OTS 797.1400 (Fish Acute Toxicity Test)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	LC50	7,1 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	NOEC	0,14 mg/l	28 d	Oncorhynchus mykiss	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Ammonium hydroxide (NH ₄)(OH) 1336-21-6	LC50	0,16 - 1,1 mg/l	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ammonium hydroxide (NH ₄)(OH) 1336-21-6	NOEC	< 0,048 mg/l	31 d	Channel catfish	OECD Guideline 215 (Fish, Juvenile Growth Test)
1-(2-hydroxyethyl)-1H- pyrazol-4,5- diyldiammoniumsulfate 155601-30-2	LC50	> 86,2 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	EU Method C.1 (Acute Toxicity for Fish)
Potassium hydroxide 1310-58-3	LC50	80 mg/l	96 h	Western mosquitofish (Gambusia affinis)	not specified

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-amino-2-methylpropanol 124-68-5	EC50	193 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Alcohols, C12-18 67762-25-8	EC50	0,765 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	EC50	7,2 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ammonium hydroxide (NH ₄)(OH) 1336-21-6	EC50	25,4 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
1-(2-hydroxyethyl)-1H- pyrazol-4,5- diyldiammoniumsulfate 155601-30-2	EC50	11,12 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Siloxanes and Silicones, di- Me, hydrogen-terminated, polymers with polyethylene glycol bis(2-methyl-2-propen- 1-yl) ether, 3-[3-[bis(1253692-80-6	EC50	> 100 mg/l	48 h	Daphnia magna	not specified
Potassium hydroxide 1310-58-3	EC50	> 100 mg/l		Daphnia sp.	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
6-methoxy-N2- methylpyridine-2,3-diamine dihydrochloride	EC50	0,99 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

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Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Alcohols, C12-18 67762-25-8	NOEC	0,014 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	NOEC	0,72 mg/l	21 d	Daphnia magna	OECD Guideline 202 (Daphnia sp. Chronic Immobilisation Test)
Ammonium hydroxide (NH ₄)(OH)) 1336-21-6	NOEC	0,79 mg/l	96 h	Daphnia magna	EPA OPPTS 850.1300 (Daphnid Chronic Toxicity Test)
1-(2-hydroxyethyl)-1H- pyrazol-4,5- diyldiammoniumsulfate 155601-30-2	NOEC	0,07 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-amino-2-methylpropanol 124-68-5	EC50	520 mg/l	72 h		OECD Guideline 201 (Alga, Growth Inhibition Test)
Alcohols, C12-18 67762-25-8	EC50	0,66 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	EC50	27 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	NOEC	0,93 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ammonium hydroxide (NH ₄)(OH) 1336-21-6	EC50	> 1.000 mg/l	72 h	Skeletonema costatum	ISO 10253 (Water quality)
Ammonium hydroxide (NH ₄)(OH) 1336-21-6	NOEC	1.000 mg/l	72 h	Skeletonema costatum	ISO 10253 (Water quality)
1-(2-hydroxyethyl)-1H- pyrazol-4,5- diyldiammoniumsulfate 155601-30-2	EC50	5,33 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EU Method C.3 (Algal Inhibition test)
6-methoxy-N2- methylpyridine-2,3-diamine dihydrochloride 83732-72-3	EC50	0,38 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
6-methoxy-N2- methylpyridine-2,3-diamine dihydrochloride 83732-72-3	NOEC	0,128 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-amino-2-methylpropanol 124-68-5	EC0	900 mg/l	30 min		not specified
Alcohols, C12-18 67762-25-8	EC0	10.000 mg/l	30 min	Pseudomonas putida	DIN 38412, part 27 (Bacterial oxygen consumption test)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	EC0	360 mg/l	30 min	Pseudomonas putida	DIN 38412, part 27 (Bacterial oxygen consumption test)
Potassium hydroxide 1310-58-3	EC0	> 100 mg/l	30 min		not specified

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
2-amino-2-methylpropanol 124-68-5		aerobic	89,3 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Alcohols, C12-18 67762-25-8	readily biodegradable	aerobic	79 %	28 d	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	readily biodegradable	aerobic	77 - 79 %	28 d	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)
1-(2-hydroxyethyl)-1H- pyrazol-4,5- diylidiammoniumsulfate 155601-30-2	not readily biodegradable.	aerobic	33,3 %		OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
6-methoxy-N2- methylpyridine-2,3-diamine dihydrochloride 83732-72-3	not readily biodegradable.	aerobic	8 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
2-amino-2-methylpropanol 124-68-5	-0,63	20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	0,3	23 °C	OECD Guideline 123 (Partition Coefficient (1-Octanol / Water), Slow-Stirring Method)
Ammonium hydroxide ((NH ₄)(OH)) 1336-21-6	-1,14		EU Method A.8 (Partition Coefficient)
1-(2-hydroxyethyl)-1H- pyrazol-4,5- diylidiammoniumsulfate 155601-30-2	-1,75	25 °C	not specified
6-methoxy-N2- methylpyridine-2,3-diamine dihydrochloride 83732-72-3	0,83	23 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
2-amino-2-methylpropanol 124-68-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Alcohols, C12-18 67762-25-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Ammonium hydroxide ((NH ₄)(OH)) 1336-21-6	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.
1-(2-hydroxyethyl)-1H-pyrazol-4,5- diylidiammoniumsulfate 155601-30-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Potassium hydroxide 1310-58-3	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.
6-methoxy-N2-methylpyridine-2,3-diamine dihydrochloride 83732-72-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product disposal:

Consider national regulations.

Special waste incineration or special disposal with the approval of the responsible local authority.

SECTION 14: Transport information**14.1. UN number**

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.2. UN proper shipping name

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.3. Transport hazard class(es)

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.4. Packing group

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

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

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

National regulations/information (Germany):

WGK:	WGK 2: obviously hazardous to water (Germany. Ordinance on Facilities Handling Substances that are Hazardous to Water, ((AwSV of 21 April 2017), UBA, BAnz AT), as amended)
Storage class according to TRGS 510:	Classification in conformity with the calculation method 10

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H290 May be corrosive to metals.
H302 Harmful if swallowed.
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.
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.

Further information:

This information is not related to the use of the product, it is based on our current level of knowledge.