SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

WHEEL CERAMIC

UFI:

X8NT-HNE7-U50S-JKPN

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

Relevant identified uses

Coating.
Professional use.

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Supplier

PUR Premium Kristian Abicic
Am Talhaus 11
67316 Carlsberg, Germany
+49 6233 511944-1
msds@c2coating.de

1.4 Emergency Telephone Number

Emergency

112

Supplier

+49 30 30686700 (Giftnotrufzentrale 24h Charité Berlin)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Flam. Liq. 2; H225 Highly flammable liquid and vapour.
Water-react. 3; H261 In contact with water releases flammable gases.
Acute Tox. 4; H302 Harmful if swallowed.
Skin Corr. 1B; H314 Causes severe skin burns and eye damage.
Skin Sens. 1; H317 May cause an allergic skin reaction.
Eye Dam. 1; H318 Causes serious eye damage.
STOT SE 3; H336 May cause drowsiness or dizziness.
Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

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



Signal word: DANGER

Hazard statements:

H225 Highly flammable liquid and vapour.
H261 In contact with water releases flammable gases.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Supplemental hazard information (EU):

EUH014 Reacts violently with water.
EUH029 Contact with water liberates toxic gas.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands and face thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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/physician.

Contains:

n-butyl acetate
organic polysilazanes
3-aminopropyltriethoxysilane

2.3 Other hazards

PBT/vPvB

No information.

Endocrine disrupting properties

No data.

Additional information

No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

Name	CAS EC Index REACH	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	60-70	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	/	/

Name	CAS EC Index REACH	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
organic polysilazanes	475645-84-2 - -	40-50	Flam. Liq. 2; H225 Water-react. 3; H261 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	/	/
3-aminopropyltriethoxysilane	919-30-2 213-048-4 612-108-00-0 01-2119480479-24	5-10	Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Sens. 1; H317	oral: ATE = 1780 mg/kg bw	/
2-(2-butoxyethoxy)ethanol	112-34-5 203-961-6 603-096-00-8 01-2119475104-44	0.01-0.1	Eye Irrit. 2; H319	/	/
ammonia, anhydrous	7664-41-7 231-635-3 007-001-00-5	*	Flam. Gas 2; H221 Skin Corr. 1B; H314 Acute Tox. 3; H331 Aquatic Acute 1; H400; M = 1	/	/

Product description

*Ammonia can be released during use.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

Person giving first aid should properly protect himself. Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician.

Following inhalation

Remove patient to fresh air - move out of dangerous area. In case of unconsciousness bring patient into stable side position and seek medical attention. If breathing is irregular or respiratory arrest occurs, provide artificial respiration. Keep at rest in a position comfortable for breathing. Seek medical help immediately.

Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. Immediately obtain professional medical help!

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. Remove contact lenses, if present and easy to do. Consult a physician immediately!

Following ingestion

Do not induce vomiting! Rinse mouth with water and drink a glass of water by sips! Never give anything by mouth to an unconscious person. Do not neutralise. Immediately consult a doctor. Show the physician the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation. Vapours may cause drowsiness and dizziness.

Following skin contact

Skin burns: Signs/symptoms may include localised redness, swelling, itching, dryness, blistering. May cause sensitisation by skin contact (itching, redness, rashes).

Following eye contact

Redness, pain, burning sensation, tearing, can cause permanent damage to the eyes.

Following ingestion

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort. If ingested, may cause burns of the mouth and throat, as well as perforation of the esophagus and stomach. Harmful to health.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Carbon dioxide (CO_2).
Foam.

Unsuitable extinguishing media

Water.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO_2).
Nitrogen oxides (NO_X). Contact with water liberates toxic and flammable gas. Hydrogen.
Ammonia.

5.3 Advice for firefighters

Protective actions

In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Vapours are heavier than air and spread along floor. Vapours may form explosive mixtures with the air. Prolonged heating can cause an explosion. Cool containers at risk with water spray. If possible remove containers from endangered area.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

Additional information

Contaminated firefighting water and fire residues must be disposed of in accordance with the local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

Wear suitable protective equipment (see Section 8).

Precautionary measures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Prevent access to unprotected personnel. Evacuate the danger zone. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

For emergency responders

Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. In case of release into the environment, inform the relevant authorities.

6.3 Methods and material for containment and cleaning up

For containment

Prevent spillage - close holes on damaged container. Stem the spill if this does not pose risks.

For cleaning up

Prevent release into the sewer, water, basements or confined areas. Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Dispose in accordance with applicable regulations (see Section 13). Ventilate the premises. Clean contaminated area with plenty of water.

Other information

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Take precautionary measures against static discharges. Vapours are heavier than air and spread along the floor. They form explosive mixtures with air.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

Other measures

No information.

Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Remove contaminated clothes and wash them before reuse. Wear suitable protective equipment; see Section 8.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep in a cool, dry and well ventilated place. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep away from oxidising substances. Keep away from sources of ignition - no smoking. Open container periodically in order to release pressure which may be generated (ammonia). Keep unauthorized personnel away.

Packaging materials

Store only in original container.

Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

Storage temperature

< 25 °C

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

No information.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

Name	mg/m³	ml/m³	Short-term value mg/m³	Short-term value ml/m³	Remark	Biological Tolerance Values
2-(2-Butoxyethoxy) ethanol (112-34-5)	67.5	10	101.2	15	/	/
Ammonia, anhydrous (7664-41-7)	18	25	25	35	/	/
Butyl acetate (123-86-4)	724	150	966	200	/	/

Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

Name	Type	Exposure route	exp. frequency	Remark	Value
n-butyl acetate	Worker	inhalation	long term systemic effects	/	300 mg/m³

Name	Type	Exposure route	exp. frequency	Remark	Value
n-butyl acetate	Worker	inhalation	short term systemic effects	/	600 mg/m³
n-butyl acetate	Worker	inhalation	long term local effects	/	300 mg/m³
n-butyl acetate	Worker	inhalation	short term local effects	/	600 mg/m³
n-butyl acetate	Worker	dermal	long term systemic effects	/	11 mg/kg bw/day
n-butyl acetate	Worker	dermal	short term systemic effects	/	11 mg/kg bw/day
n-butyl acetate	Consumer	inhalation	long term systemic effects	/	35.7 mg/m³
n-butyl acetate	Consumer	inhalation	short term systemic effects	/	300 mg/m³
n-butyl acetate	Consumer	inhalation	long term local effects	/	35.7 mg/m³
n-butyl acetate	Consumer	inhalation	short term local effects	/	300 mg/m³
n-butyl acetate	Consumer	dermal	long term systemic effects	/	6 mg/kg bw/day
n-butyl acetate	Consumer	dermal	short term systemic effects	/	6 mg/kg bw/day
n-butyl acetate	Consumer	oral	long term systemic effects	/	2 mg/kg bw/day
n-butyl acetate	Consumer	oral	short term systemic effects	/	2 mg/kg bw/day
3-aminopropyltriethoxysilane	Worker	inhalation	long term systemic effects	/	14 mg/m³
3-aminopropyltriethoxysilane	Worker	dermal	long term systemic effects	/	2 mg/kg bw/day
3-aminopropyltriethoxysilane	Consumer	inhalation	long term systemic effects	/	3.5 mg/m³
3-aminopropyltriethoxysilane	Consumer	dermal	long term systemic effects	/	1 mg/kg bw/day
3-aminopropyltriethoxysilane	Consumer	oral	long term systemic effects	/	1 mg/kg bw/day
2-(2-butoxyethoxy)ethanol	Worker	inhalation	long term local effects	/	67.5 mg/m³
2-(2-butoxyethoxy)ethanol	Worker	inhalation	short term local effects	/	101.2 mg/m³

Name	Type	Exposure route	exp. frequency	Remark	Value
2-(2-butoxyethoxy)ethanol	Consumer	oral	long term systemic effects	/	6.25 mg/kg bw/day

PNEC values

For product

No information.

For components

Name	Exposure route	Remark	Value
n-butyl acetate	fresh water	/	0.18 mg/L
n-butyl acetate	water, intermittent release	/	0.36 mg/L
n-butyl acetate	marine water	/	0.018 mg/L
n-butyl acetate	water treatment plant	/	35.6 mg/L
n-butyl acetate	fresh water sediment	dry weight	0.981 mg/kg
n-butyl acetate	marine water sediment	dry weight	0.098 mg/kg
n-butyl acetate	soil	dry weight	0.09 mg/kg
3-aminopropyltriethoxysilane	water treatment plant	/	1.3 mg/L
2-(2-butoxyethoxy)ethanol	fresh water	/	1.1 mg/L
2-(2-butoxyethoxy)ethanol	water, intermittent release	/	11 mg/L
2-(2-butoxyethoxy)ethanol	marine water	/	0.11 mg/L
2-(2-butoxyethoxy)ethanol	fresh water sediment	dry weight	4.4 mg/kg
2-(2-butoxyethoxy)ethanol	marine water sediment	dry weight	0.44 mg/kg
2-(2-butoxyethoxy)ethanol	soil	dry weight	0.32 mg/kg
2-(2-butoxyethoxy)ethanol	secondary poisoning	food	56 mg/kg

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Keep eyewash bottles or personal eyewash units and emergency showers available.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

Tight-fitting protective goggles (BS EN ISO 16321-1:2022).

Hand protection

Protective gloves (EN ISO 374). When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. It is recommended to check the resistance to chemicals of the protective gloves with the supplier of these gloves. The product is a mixture of several substances, the resistance of glove materials cannot be predicted and must therefore be checked before use. Follow the manufacturer's instructions about permeability and penetration times and specific workplace conditions (mechanical load, exposure duration). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately.

Appropriate materials

Material	Thickness	Penetration Time	Remark
Butyl rubber	> 0.4 mm	> 480 min	/
Butyl rubber	> 0.11 mm	> 10 min	/

Skin protection

Wear category III professional long-sleeved overalls and safety footwear (see Regulation (EU) 2016/425 and standard EN ISO 20344). Wear protective clothing against chemical risks (type 3) in accordance with EN 14325. In case of sputtering wear liquid-tight protective clothing against chemical risks (type 4) in accordance with EN14605.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. If the concentration of vapors/mists in the air is higher than permitted, protect the respiratory organs with a half mask (EN 140) or mask (EN 136) with combined filter A2B2E2K2HgP3 (EN 14387). 'High/elevated concentrations' means that the occupational exposure limit values have been exceeded.

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Important health, safety and environmental information

Physical state	liquid
Shape	No information.
Colour	colourless
Odour	like ammonia
Odour threshold	No information.
Melting/freezing point or softening point	No information.
Boiling point or initial boiling point and boiling range	125 °C (solvent)

Flammability	No information.
Lower and upper explosion limit	No information.
Flash point	16 °C
Auto-ignition temperature	No information.
Decomposition temperature	435 °C
pH	substance/mixture reacts with water
Viscosity	No information.
Solubility (Water)	reacts with water
Partition coefficient n-octanol/water (log value)	No information.
Vapour pressure	No information.
Density	0.92 g/cm^3
Relative vapour/gas density	No information.
Particle characteristics	No information.

9.2 Other information

Information with regard to physical hazard classes

Explosive properties	At room temperature (20 °C) and standard pressure (101,3 kPa) the gas-air mixture is within the explosive range.

Other safety characteristics

Weight organic solvents	65.475 % (2010/75/EU) 602.37 g/l (2010/75/EU) 65.5 % (2004/42/EC) 602.6 g/l (2004/42/EC)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

The product reacts with water.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions. In contact with water hydrolises and forms hydrogen, ammonia and siloxanes which causes pressure buildup.

10.3 Possibility of hazardous reactions

Reacts violently with water. Reacts with amines. Reacts with alcohols.

10.4 Conditions to avoid

Protect from heat, direct sunlight, open fire, sparks.

10.5 Incompatible materials

Oxidants.
Water.
Bases.
Acids. Halogenated compounds.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released. Hydrogen.
Ammonia;

SECTION 11: TOXICOLOGICAL INFORMATION

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

(a) Acute toxicity

For product

Exposure route	Type	Species	Time	Value	Method	Remark
oral	ATE	/	/	866.7 mg/kg	/	/
dermal	ATE	/	/	> 2000 mg/kg	/	/
inhalation (vapors)	ATE	/	/	> 20 mg/l	/	/
inhalation (dusts/mists)	ATE	/	/	> 5 mg/l	/	/

For components

Name	Exposure route	Type	Species	Time	Value	Method	Remark
n-butyl acetate	oral	LD_{50}	/	/	10760 mg/kg	OECD 423	/
n-butyl acetate	dermal	LD_{50}	rabbit	/	> 17600 mg/kg	OECD 403	/
n-butyl acetate	inhalation	LC_{50}	rat	4 h	21.1 mg/l	/	/
organic polysilazanes	oral	LD_{50}	rat	/	300 - 2000 mg/kg	/	/
3-aminopropyltriethoxysilane	oral	LD_{50}	rat	/	1780 mg/kg	/	RTECS
3-aminopropyltriethoxysilane	dermal	LD_{50}	rabbit	/	3800 mg/kg	/	RTECS
3-aminopropyltriethoxysilane	inhalation	LC_{50}	/	4 h	> 5 mg/l	OECD 405	/
2-(2-butoxyethoxy)ethanol	dermal	LD_{50}	rabbit	/	2764 mg/kg	/	/

Name	Exposure route	Type	Species	Time	Value	Method	Remark
2-(2-butoxyethoxy)ethanol	oral	LD_{50}	rat	/	2410 mg/kg	/	/
ammonia, anhydrous	inhalation (vapors)	ATE	/	/	3 mg/l	/	/
ammonia, anhydrous	inhalation (dusts/mists)	ATE	/	/	0.5 mg/l	/	/

Additional information

Harmful if swallowed. Contact with water liberates toxic gas.

(b) Skin corrosion/irritation

For components

Name	Species	Time	result	Method	Remark
organic polysilazanes	rabbit	/	Corrosive	OECD 404	/

Additional information

Causes severe skin burns.

(c) Serious eye damage/irritation

No information.

Additional information

Causes serious eye damage.

(d) Respiratory or skin sensitisation

For components

Name	Exposure route	Species	Time	result	Method	Remark
n-butyl acetate	dermal	/	/	Negative.	Regulation (EC) No. 440/2008, Annex, B.6 (maximisation test)	/

Additional information

May cause an allergic skin reaction.

(e) (Germ cell) mutagenicity

For components

Name	Type	Species	Time	result	Method	Remark
organic polysilazanes	in-vitro mutagenicity	*Escherichia coli*	/	Negative.	OECD 471	/

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

For components

Name	Exposure route	Type	Species	Time	Exposure	organ	Value	result	Method	Remark
n-butyl acetate	/	/	/	/	/	/	/	May cause drowsiness or dizziness.	/	/

Additional information

May cause drowsiness or dizziness.

(i) STOT-repeated exposure

No information.

Additional information

STOT RE (repeated exposure): Not classified.

(j) Aspiration hazard

No information.

Additional information

Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity

For components

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
n-butyl acetate	LC_{50}	18 mg/L	96 h	fish	*Pimephales promelas*	OECD 203	/
n-butyl acetate	ErC50	397 mg/L	72 h	algae	*Scenedesmus subspicatus*	OECD 201	/
n-butyl acetate	EC_{50}	44 mg/L	48 h	crustacea	*Daphnia magna*	OECD 202	/
n-butyl acetate	EC50	356 mg/L	/	bacteria	Activated sludge	/	/
organic polysilazanes	LC_{50}	57.1 mg/L	/	fish	*Brachydanio rerio*	/	/

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
3-aminopropyltriethoxysilane	ErC50	603 mg/L	72 h	algae	*Desmodesmus subspicatus*	/	/
3-aminopropyltriethoxysilane	EC_{50}	331 mg/L	48 h	crustacea	*Daphnia magna*	OECD 202	/
3-aminopropyltriethoxysilane	LC0	934 mg/L	96 h	fish	*Brachydanio rerio*	OECD 203	/
2-(2-butoxyethoxy)ethanol	LC_{50}	1300 mg/L	96 h	fish	*Lepomis macrochirus*	OECD 203	/
2-(2-butoxyethoxy)ethanol	EC_{50}	> 100 mg/L	48 h	crustacea	*Daphnia magna*	/	/
2-(2-butoxyethoxy)ethanol	/	> 1995 mg/L	30 min	bacteria	/	OECD 209	activated sludge
2-(2-butoxyethoxy)ethanol	ErC_{50}	> 100 mg/L	96 h	algae	*Scenedesmus subspicatus*	/	/
ammonia, anhydrous	LC_{50}	> 0.486 mg/L	96 h	fish	*Oncorhynchus mykiss*	/	/

Chronic (long-term) toxicity

For components

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
2-(2-butoxyethoxy)ethanol	NOEC	100 mg/l	4 days	algae	*Scenedesmus subspicatus*	/	/
ammonia, anhydrous	NOEC	1.2 mg/l	61 days	fish	*Oncorhynchus gorbuscha*	/	/

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

For components

Name	Type	Rate	Time	Evaluation	Method	Remark
n-butyl acetate	biodegradation	83	28 days	readily biodegradable	OECD 301 D	/
3-aminopropyltriethoxysilane	aerobic	67	28 days	not readily biodegradable	/	/
2-(2-butoxyethoxy)ethanol	biodegradability	85 %	/	readily biodegradable	OECD 301 C	/

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)

For components

Name	Value	Temperature °C	pH	Concentration	Method
n-butyl acetate	1.78	/	/	/	/
3-aminopropyltriethoxysilane	0.31	/	/	/	/
2-(2-butoxyethoxy)ethanol	0.56	25	/	/	/

Bioconcentration factor (BCF)

For components

Name	Species	Organism	Value	Duration	Evaluation	Method	Remark
3-aminopropyltriethoxysilane	BCF	*Cyprinus carpio*	3.4	/	/	/	/

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

No information.

12.5 Results of PBT and vPvB 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.

12.6 Endocrine disrupting properties

For product

The mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Harmful to aquatic life with long lasting effects. Do not allow to reach ground water, water courses or sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Waste is classified as hazardous waste. Do not mix with other waste. Dispose of in accordance with applicable waste disposal regulation. Dispose the product to an authorised collector/remover of waste/company performing waste recovery. Do not allow product to reach drains/sewage systems.

Waste codes / waste designations according to LoW

No information.

Packaging

Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents. Uncleaned containers should not be perforated, cut or welded. Empty containers represent a fire hazard as they may contain flammable product residues and vapours.

Waste codes / waste designations according to LoW

No information.

Waste treatment-relevant information

No information.

Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number

ADR/RID	IMDG	IATA	ADN
UN 3129	UN 3129	UN 3129	UN 3129

14.2 UN proper shipping name

ADR/RID	IMDG	IATA	ADN
WATER-REACTIVE LIQUID, CORROSIVE, N.O.S. (n-butyl acetate, organic polysilazanes)	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S. (n-butyl acetate, organic polysilazanes)	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S. (n-butyl acetate, organic polysilazanes)	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S. (n-butyl acetate, organic polysilazanes)

14.3 Transport hazard class(es)

ADR/RID	IMDG	IATA	ADN
4.3 (8)	4.3 (8)	4.3 (8)	4.3 (8)
			

14.4 Packing group

ADR/RID	IMDG	IATA	ADN
II	II	II	II

14.5 Environmental hazards

ADR/RID	IMDG	IATA	ADN
NO	NO	NO	NO

14.6 Special precautions for user

ADR/RID	IMDG	IATA	ADN
Limited quantities: **500 ml** Special provisions: **274** Packing Instructions: **P402, IBC01** Special packing provisions: **RR7, RR8** Tunnel restriction code: **(D/E)** Classification code: **WC1**	Limited quantities: **500 ml** EmS: **F-G, S-N** Flash point: **16 °C**		Limited quantities: **500 ml**

14.7 Maritime transport in bulk according to IMO instruments

ADR/RID	IMDG	IATA	ADN
	Goods may not be carried in bulk in bulk containers, containers or vehicles.		

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

Ingredients according to Regulation (EC) No 648/2004 on detergents

No information.

Special instructions

Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 3, 40, 75. Seveso O3: Substances or mixtures with hazard statement EUH029. Seveso P5c: FLAMMABLE LIQUIDS. Water hazard class 2 (self-assessment): hazardous for water.

15.2 Chemical Safety Assessment

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

SECTION 16: OTHER INFORMATION

Indication of changes

4.1 Description of first aid measures 6.1 Personal precautions, protective equipment and emergency procedures 8.2 Exposure controls 13.1 Waste treatment methods

Key literature references and sources for data

No information.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes

IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals (Regulation (EC) No 1907/2006)
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H221 Flammable gas.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H261 In contact with water releases flammable gases.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.



- ☑ Provided correct labelling of the product
- ☑ Compliance with the local legislation
- ☑ Provided correct classification of the product
- ☑ Provided adequate transport data

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The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and nationallaws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposesother than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure thatthe necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions.The information given in this SDS is to describe the product only in terms of health and safety requirements and should not,therefore, be construed as guaranteeing specific properties.