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

1.1 Product identifier

Trade name : BLF223-B21 hebro®lub base 42

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

Use of the Substance/Mixture : High speed cooling lubricant for metalworking

1.3 Details of the supplier of the safety data sheet

Company : hebro chemie- ZN der Rockwood Specialties Group GmbH
Rostocker Str. 40
41199 Mönchengladbach
Contact person : Zentrale hebro chemie
Telephone : +49 (0) 2166 6009-0
Telefax : +49 (0) 2166 6009-99

Contact person product safety Abteilung Produktsicherheit
Telephone : +49(0)2166 6009-311
E-mail address : msds.de@hebro-chemie.de

1.4 Emergency telephone number

: Giftinformationszentrum Erfurt:
+49 (0) 361 730 730

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Warning

Hazard statements : H315 Causes skin irritation.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.

Response:
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

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

Additional Labelling
EUH208 Contains 3-iodo-2-propynyl butylcarbamate. May produce an allergic reaction.

2.3 Other hazards

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

Ecological information: This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f).

Toxicological information: This substance/mixture does not contain components considered to have endocrine disrupting properties for human health according to UK REACH Article 57(f),

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Preparation of mineral oil and additives

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
2-Amino-2-methylpropanol	124-68-5 204-709-8 603-070-00-6 01-2119475788-16	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 3; H412	>= 2.5 - < 10
Alcohol, C9-C11, ethoxylated	68439-46-3	Acute Tox. 4; H302 Eye Dam. 1; H318	>= 2.5 - < 3

undecanedioic acid, compound with 2,2',2''-nitrilotriethanol (1:2)	85030-07-5 285-131-3	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Eye Irrit. 2; H319	>= 2.5 - < 10
(Z)-docos-13-enoic acid, compound with 3-Amino-4-octanol (1:1)	Not Assigned	Acute Tox. 4; H302	>= 2.5 - < 10
Dodecanedioic acid, compound with 2,2',2''-nitrilotriethanol	85030-08-6 285-132-9 01-2120760165-57	Skin Irrit. 2; H315 Eye Dam. 2; H319	>= 1 - < 2.5
Trideceth-7 carboxylic acid compound with 3-Amino-4-octanol	Not Assigned	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411	>= 1 - < 2.5
5(or 6)-carboxy-4-hexylcyclohex-2-ene-1-octanoic acid, compound with 3-amino-4-octanol	Not Assigned	Acute Tox. 4; H302	>= 1 - < 2.5
Ethanediol; Ethylene glycol	107-21-1 203-473-3 01-2119456816-28	Acute Tox. 4; H302	>= 1 - < 2.5
3-iodo-2-propynyl butylcarbamate	55406-53-6 259-627-5	Acute Tox. 4; H302 Acute Tox. 3; H331 Eye Dam. 1; H318 Skin Sens. 1; H317 STOT RE 1; H372 (larynx) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	>= 0.25 - < 1
Substances with a workplace exposure limit :			
Propane-1,2-diol	57-55-6 200-338-0 01-2119456809-23		>= 1 - < 2.5

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : No special precautions required.
Call a physician if symptoms occur.

If inhaled : No special precautions required.

In case of skin contact : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

In case of eye contact : In case of eye contact, remove contact lens and rinse imme-

diately with plenty of water, also under the eyelids, for at least 15 minutes.

If swallowed : Immediately give large quantities of water to drink.
Do NOT induce vomiting.
Keep at rest.
Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Causes skin irritation.
Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO2)
Dry powder
Water mist

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Combustion may cause:

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Specific extinguishing methods : Use water spray to cool unopened containers.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid contact with skin, eyes and clothing.
Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions : Inform the relevant authorities if it enters sewers, aquatic environment or soil.

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours or spray mist.
For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Follow the water regulations. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in original container.

Further information on storage conditions : Keep only in the original container in a cool, well-ventilated place. Keep away from heat. Protect from frost.

Advice on common storage : Incompatible with oxidizing agents.

Storage class : 10,Combustible liquids

Recommended storage temperature : 5 - 40 °C

7.3 Specific end use(s)

Specific use(s) : High speed cooling lubricant for metalworking

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Propane-1,2-diol	57-55-6	TWA (Total vapour and particles)	150 ppm 474 mg/m3	GB EH40

		TWA (particles)	10 mg/m3	GB EH40
Ethanediol; Ethylene glycol	107-21-1	TWA (Vapour)	20 ppm 52 mg/m3	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		TWA (particles)	10 mg/m3	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL (Vapour)	40 ppm 104 mg/m3	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
2-Amino-2-methylpropanol	Workers	Inhalation	Long-term systemic effects	4.7 mg/m3
Triethanolamine	Workers	Inhalation	Long-term systemic effects	5 mg/m3
	Workers	Inhalation	Long-term local effects	5 mg/m3
	Workers	Skin contact	Long-term systemic effects	6.3 mg/kg bw/day
Ethanediol; Ethylene glycol	Workers	Inhalation	Acute local effects	35 mg/m3
	Workers	Skin contact	Long-term systemic effects	106 mg/kg bw/day
Propane-1,2-diol	Workers	Inhalation	Long-term systemic effects	168 mg/m3
	Workers	Inhalation	Long-term local effects	10 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
Triethanolamine	Fresh water	0.32 mg/l
	Marine water	0.032 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	1.7 mg/kg
	Marine sediment	0.17 mg/kg
	Soil	0.151 mg/kg
Ethanediol; Ethylene glycol	Fresh water	10 mg/l
	Marine water	1 mg/l
	Sewage treatment plant	199.5 mg/l
	Fresh water sediment	20.9 mg/kg
	Soil	1.53 mg/kg
Propane-1,2-diol	Fresh water	260 mg/l
	Marine water	26 mg/l
	Sewage treatment plant	20000 mg/l
	Fresh water sediment	572 mg/kg
	Marine sediment	57.2 mg/kg

	Soil	50 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Safety glasses with side-shields conforming to EN166

Hand protection
- Material : Protective gloves complying with EN 374.
- Break through time : > 60 min
- Protective index : Class 3

- Material : Nitrile rubber
- Glove thickness : 0.4 mm

- Material : butyl-rubber
- Glove thickness : 0.5 mm

- Remarks : The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The exact break through time can be obtained from the protective glove producer and this has to be observed.

Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)
Long sleeved clothing

Respiratory protection : Breathing apparatus needed only when aerosol or mist is formed.

- Filter type : Combined ammonia/amines and organic vapour type (AK)

Protective measures : When using do not eat, drink or smoke.
Wash hands before breaks and at the end of workday.
Follow the skin protection plan.

Environmental exposure controls

Water : Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Colour : colourless to yellowish

Odour : amine-like

Melting point/freezing point : not determined

Boiling point/boiling range	:	No data available
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Flash point	:	No data available
Auto-ignition temperature	:	not determined
pH	:	9.3 Concentration: 50 g/l
Viscosity		
Viscosity, kinematic	:	75 mm²/s (40 °C)
Solubility(ies)		
Water solubility	:	1,000 g/l completely soluble
Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	not determined
Density	:	0.96 g/cm³ (20 °C)
Relative vapour density	:	not determined

9.2 Other information

Explosives	:	no explosion risk
Metal corrosion rate	:	Not corrosive to metals

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid : Strong acids and oxidizing agents

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.
Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

SECTION 11: Toxicological information

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

Acute toxicity

Not classified due to lack of data.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Components:

2-Amino-2-methylpropanol:

Acute oral toxicity : LD50 (Rat): 2,900 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Alcohol, C9-C11, ethoxylated:

Acute oral toxicity : LD50 (Rat): > 300 - 2,000 mg/kg

Acute dermal toxicity : LD50: > 2,000 mg/kg

Ethanediol; Ethylene glycol:

Acute inhalation toxicity : LC50 (Rat): 2.5 mg/l
Exposure time: 6 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): 9,530 mg/kg

3-iodo-2-propynyl butylcarbamate:

Acute oral toxicity	:	LD50 (Rat, male): 1,795 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 0.67 mg/l Exposure time: 4 h Test atmosphere: dust/mist Remarks: Alveolar dust fraction
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg

Propane-1,2-diol:

Acute oral toxicity	:	LD50 (Rat): 20,000 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit): 20,800 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Skin sensitisation

Not classified due to lack of data.

Respiratory sensitisation

Not classified due to lack of data.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

Ethanediol; Ethylene glycol:

Genotoxicity in vitro	:	Test Type: Ames test Result: negative

Carcinogenicity

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

Product:

Carcinogenicity - Assessment	:	Not classifiable as a human carcinogen.

Reproductive toxicity

Not classified due to lack of data.

STOT - single exposure

Not classified due to lack of data.

STOT - repeated exposure

Not classified due to lack of data.

Aspiration toxicity

Not classified due to lack of data.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : This substance/mixture does not contain components considered to have endocrine disrupting properties for human health according to UK REACH Article 57(f),

Further information

Product:

Remarks : Health injuries are not known or expected under normal use.

SECTION 12: Ecological information

12.1 Toxicity

Components:

2-Amino-2-methylpropanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 190 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 65 mg/l
Exposure time: 24 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : IC50 (Desmodesmus subspicatus): 520 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Alcohol, C9-C11, ethoxylated:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 23.7 mg/l
Exposure time: 96 h
Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 13.4 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae/aquatic plants : IC50 (Skeletonema costatum (marine diatom)): > 1 - 10 mg/l
Exposure time: 72 h

Ethanediol; Ethylene glycol:

Toxicity to fish : LC50 (Pimephales promelas (Fathead minnow)): 72,860 mg/l
Exposure time: 96 h
Test Type: static test

NOEC (Pimephales promelas (Fathead minnow)): 15,380 mg/l

Exposure time: 7 d

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 NOEC (Ceriodaphnia dubia (water flea)): 8,590 mg/l Exposure time: 7 d
Toxicity to algae/aquatic plants	:	EC50 (Selenastrum capricornutum (green algae)): 6,500 - 13,000 mg/l Exposure time: 96 h
Toxicity to microorganisms	:	EC20 (activated sludge): > 1,995 mg/l Exposure time: 0.5 h Method: ISO 8192

3-iodo-2-propynyl butylcarbamate:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.067 mg/l Exposure time: 96 h NOEC (Oncorhynchus mykiss (rainbow trout)): 0.049 mg/l Exposure time: 96 h NOEC (Pimephales promelas (Fathead minnow)): 0.0084 mg/l Exposure time: 35 d
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.16 mg/l Exposure time: 48 h EC50 (Daphnia magna (Water flea)): 0.05 mg/l Exposure time: 21 d
Toxicity to algae/aquatic plants	:	EC50 (Scenedesmus subspicatus): 0.022 mg/l Exposure time: 72 h NOEC (Scenedesmus subspicatus): 0.0046 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	10
Toxicity to microorganisms	:	EC50 (Natural microorganism): 44 mg/l Exposure time: 3 h
M-Factor (Chronic aquatic toxicity)	:	1

Propane-1,2-diol:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): > 100 mg/l Exposure time: 48 h

Toxicity to algae/aquatic plants	:	EC50 (Selenastrum capricornutum (green algae)): 24,200 mg/l Exposure time: 72 h

12.2 Persistence and degradability

Product:

Biodegradability	:	Remarks: No data available

Components:

2-Amino-2-methylpropanol:

Biodegradability	:	Biodegradation: 89.3 % Exposure time: 28 d Remarks: rapidly biodegradable

12.3 Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: No data available

Components:

Ethanediol; Ethylene glycol:

Partition coefficient: n-octanol/water	:	log Pow: -1.36 (23 °C)

3-iodo-2-propynyl butylcarbamate:

Partition coefficient: n-octanol/water	:	log Pow: 2.81

12.4 Mobility in soil

Product:

Mobility	:	Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

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

12.6 Endocrine disrupting properties

Product:

Assessment	:	This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f).

12.7 Other adverse effects

Product:

Additional ecological information : Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Contaminated packaging : Dispose of in accordance with local regulations.

Waste Code : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

SECTION 14: Transport information

14.1 UN number or ID number

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA_P : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA_P : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA_P : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA (Cargo) : Not regulated as a dangerous good

IATA_P (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)	:	Conditions of restriction for the following entries should be considered: Number on list 3
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	:	Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	:	Not applicable
Regulation (EC) on substances that deplete the ozone layer	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable
GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation	:	Not applicable

Other regulations:

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

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

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of H-Statements

H302	:	Harmful if swallowed.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.

H331	:	Toxic if inhaled.
H372	:	Causes damage to organs through prolonged or repeated exposure.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information	:	The information provided is based on our current knowledge

and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.

The product is classified and labelled in accordance with EC directives or respective national laws.
Regional or national implementations of GHS may not implement all hazard classes and categories.
Guideline on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) : no component is listed
No PFAS are consciously added to the product concerning the restriction proposal for inclusion to REACh (Annex XVII).

Classification of the mixture:		**Classification procedure:**
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Aquatic Chronic 3	H412	Calculation method

GB / EN