Safety Data Sheet

According to Regulation EC No. 1907/2006

GP 15-1 B / Hardener

Date of issue/Date of revision: 10.06.2022 en / GB - Version 1.1

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation: GP 15-1 B

1.2 Relevant identified uses of the substance or mixture and uses advised against
Use of the Substance/Mixture: Hardener

1.3 Company/undertaking identification

Company name:	Gößl + Pfaff GmbH
Street:	Münchener Str. 13
Place:	85123 Karlskron/Brautlach
Telephone:	+49 (0) 8450 / 932-0
Fax.:	+49 (0) 8450 / 932-13
Contact person:	Management: Mr. Gößl, Mr. Pfaff
E-Mail:	info@goessl-pfaff.de
Internet:	www.goessl-pfaff.de
Responsible Department:	Management

1.4 Emergency telephone
Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0) 6132-84463

2. Hazards identification

2.1 Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Category 1A	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms:

Signal word: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P391 Collect spillage.

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Hazardous components which must be listed on the label:
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1- piperazinyl)ethyl]amino]butyl-terminated
Reaction mass of trientine and trientine, mono- and di-propoxylated
2,2,4(or 2,4,4)-Trimethylhexane-1,6-diamine
3-aminopropyltriethoxysilane

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

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

3. Composition/information on ingredients

3.2 Mixtures
Chemical nature: Amines

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
2-Propenenitrile, polymer with1,3-butadiene, 1-cyano-1- methyl-4-oxo-4-[[2-(1- piperazinyl)ethyl]amino]butyl-terminated	68683-29-4 Polymer	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317	>= 30 - < 50
Reaction mass of trientine andtrientine, mono- and di- propoxylated	- - 01-2120098765-38	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1B; H317 Aquatic Chronic 2;H411	>= 2,5 - < 10
bis(isopropyl)naphthalene	38640-62-9 254-052-6	Asp. Tox. 1; H304 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	>= 2,5 - < 10
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	25513-64-8 247-063-2 01-2119560598-25	Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Acute toxicity estimate Acute oral toxicity: 910 mg/kg	>= 5 - < 10
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2 202-013-9 603-069-00-0 01-2119560597-27	Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318	>= 1 - <3
3-aminopropyltriethoxysilane	919-30-2 213-048-4	Acute Tox. 4; H302 Skin Corr. 1B; H314	>= 0,1 - < 1

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	612-108-00-0 01-2119480479-24	Eye Dam. 1; H318 Skin Sens. 1B; H317 Acute toxicity estimate Acute oral toxicity: 1 491 mg/kg	

For explanation of abbreviations see section 16.

4. First aid measures

4.1 Description of first aid measures
General advice:
Move out of dangerous area.
Consult a physician.
Treat symptomatically.
Get medical attention if symptoms occur.

Protection of first-aiders:
First Aid responders should pay attention to self-protection and use the recommended protective clothing
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Avoid inhalation, ingestion and contact with skin and eyes.
No action shall be taken involving any personal risk or without suitable training.
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

If inhaled
If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact:
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.

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

If swallowed:
Keep respiratory tract clear.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed
None known.

4.3 Indication of any immediate medical attention and special treatment needed
Treatment:
Treat symptomatically.

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5. Fire-fighting measures

5.1 Extinguishing media
Suitable extinguishing media:
Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media:
Exercise caution when using a high volume water jet as it may scatter and spread fire

5.2 Special hazards arising from the substance or mixture
Specific hazards during firefighting:
Do not allow run-off from fire fighting to enter drains or water courses.

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 extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Personal precautions
Use personal protective equipment.
Refer to protective measures listed in sections 7 and 8.

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

6.3 Methods and material for containment and cleaning up
Methods for cleaning up
Neutralise with acid.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal considerations see section 13., See Section 1 for emergency contact information.,
For personal protection see section 8.

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7. Handling and storage

7.1 Precautions for safe handling
Advice on safe handling:
Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation of susceptible persons.
Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion:
Normal measures for preventive fire protection.

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

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Keep in properly labelled containers.

Advice on common storage:
Do not store near acids.
Storage class (TRGS 510): 8A

Recommended storage temperature: 2 - 40 °C

Further information on storage stability:
Stable under normal conditions.

7.3 Specific end use(s)
Specific use(s): No data available.

8. Exposure controls/personal protection

8.1 Control parameters
Occupational Exposure Limits

Components	CAS-No.	Value type (Formof exposure)	Control parameters	Basis
barium sulfate	7727-43-7	AGW (Inhalable fraction)	10 mg/m3	DE TRGS900
Peak-limit: excursion factor(category)	2;(II)			
Further information	When there is compliance with the OEL and biological tolerance values, thereis no risk of harming the unborn child			
		AGW (Alveolate fraction)	1,25 mg/m3	DE TRGS900
Peak-limit: excursion factor (category)	2;(II)			
Further information	When there is compliance with the OEL and biological tolerance values, thereis no risk of harming the unborn child			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
barium sulfate	Workers	Inhalation	Long-term systemic effects	10 mg/m3
	Workers	Inhalation	Long-term local effects	10 mg/m3
	Consumer use	Inhalation	Long-term systemic effects	10 mg/m3
	Consumer use	Oral	Long-term systemic effects	13000 mg/kg
bis(isopropyl)naphthalene	Workers	Inhalation	Systemic effects, Long-term exposure	30 mg/m3
	Workers	Dermal	Systemic effects, Long-term exposure	4,3 mg/kgbw/day
	Consumers	Inhalation	Systemic effects, Long-term exposure	7,4 mg/m3
	Consumers	Dermal	Systemic effects, Long-term exposure	2,1 mg/kgbw/day
	Consumers	Oral	Systemic effects, Long-term exposure	2,1 mg/kgbw/day
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	Consumers	Oral	Long-term systemic effects	0,05 mg/kg
Reaction mass of trientine and trientine,	Workers	Inhalation	Long-term systemic effects	3,51 mg/m3
mono- and di-propoxylated				
	Workers	Dermal	Long-term systemic effects	2 mg/kg
3-aminopropyltriethoxys ilane	Workers	Inhalation	Long-term systemic effects	59 mg/m3
	Workers	Inhalation	Systemic effects, Short-term exposure	59 mg/m3
	Workers	Dermal	Long-term systemic effects	8,3 mg/kgbw/day
	Workers	Dermal	Systemic effects, Short-term exposure	8,3 mg/kgbw/day
	Consumers	Inhalation	Long-term systemic effects	17,4 mg/m3
	Consumers	Inhalation	Systemic effects, Short-term exposure	17,4 mg/m3
	Consumers	Dermal	Long-term systemic effects	5 mg/kgbw/day
	Consumers	Dermal	Systemic effects, Short-term exposure	5 mg/kgbw/day
2,4,6-tris(dimethylaminomethyl)phenol	Workers	Inhalation	Long-term systemic effects	0,53 mg/m3
	Workers	Inhalation	Acute systemic effects	2,1 mg/m3
	Workers	Dermal	Long-term systemic effects	0,150 mg/kg
	Workers	Dermal	Acute systemic effects	0,600 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0,130 mg/m3
	Consumers	Inhalation	Acute systemic effects	0,130 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,075 mg/kg
	Consumers	Dermal	Acute systemic effects	0,075 mg/kg
	Consumers	Oral	Long-term systemic effects	0,075 mg/kg

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

Substance name	Environmental Compartment	Value
2,4,6-tris(dimethylaminomethyl)phenol	Fresh water	0,046 mg/l
	Marine water	0,005 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	0,262 mg/l
	Remarks:Assessment Factors	
	Freshwater - intermittent	0,46 mg/l
	Soil	0,025 mg/kg
barium sulfate	Fresh water	115 µg/l
	Sewage treatment plant	62,2 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	600,4 mg/kg
	Remarks:Assessment Factors	
	Soil	207,7 mg/kg
	Remarks:Assessment Factors	
bis(isopropyl)naphthalene	Fresh water	0,26 µg/l
	Remarks:Assessment Factors	
	Marine water	0,026 µg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	0,15 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	0,94 mg/kg
	Remarks:Equilibrium method	
	Marine sediment	0,094 mg/kg
	Remarks:Equilibrium method	
	Soil	0,1872 mg/kg
	Remarks:Equilibrium method	
	Secondary Poisoning	25 mg/kg
	Remarks:Assessment Factors	
Siloxanes and silicones, di-Me, reaction products with silica	Fresh water sediment	> 100 mg/kg
	Remarks:Assessment Factors	
	Soil	23 mg/kg
	Remarks:Assessment Factors	
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	Fresh water	0,102 mg/l
	Remarks:Assessment Factors	
	Marine water	0,01 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	72 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	0,662 mg/kg
	Marine sediment	0,062 mg/kg

Reaction mass of trientine andtrientine, mono- and di- propoxylated	Fresh water	0,0041 mg/l
	Remarks:Assessment Factors	
	Marine water	0,0004 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	4,3 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	0,171 mg/kg
	Remarks:Equilibrium method	
	Marine sediment	0,0171 mg/kg
	Remarks:Equilibrium method	
	Soil	0,00317 mg/kg
	Remarks:Equilibrium method	
3-aminopropyltriethoxysilane	Fresh water	0,33 mg/l
	Remarks:Assessment Factors	
	Marine water	0,033 mg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	13 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	1,2 mg/kg dry weight (d.w.)
	Remarks:Equilibrium method	
	Marine sediment	0,12 mg/kg dryweight (d.w.)
	Remarks:Equilibrium method	
	Soil	0,05 mg/kg dryweight (d.w.)
	Remarks:Equilibrium method	

8.2 Exposure controls
Personal protective equipment
Eye protection:
Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection: Butyl rubber
Material: Ethyl Vinyl Alcohol Laminate (EVAL)
Break through time: > 8 h

Material: Nitril rubber
Break through time: 10–480 min

Remarks:
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
The suitability for a specific workplace should be discussed with the producers of the protective gloves.
The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Skin and body protection:
Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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Respiratory protection:
Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines Equipment should conform to EN 143

Filter type:
Particulates type (P)

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	beige
Odour	:	amine-like
Odour Threshold	:	No data is available on the product itself.
pH	:	ca. 11 (20 °C) Concentration: 500 g/l
Melting point/freezing point	:	No data available
Boiling point	:	> 200 °C
Flash point	:	> 100 °C Method: Pensky-Martens closed cup
Flammability (solid, gas)	:	No data is available on the product itself.
Upper explosion limit / Upper flammability limit	:	No data is available on the product itself.
Lower explosion limit / Lower flammability limit	:	No data is available on the product itself.
Vapour pressure	:	No data is available on the product itself.
Relative vapour density	:	No data is available on the product itself.
Relative density	:	No data is available on the product itself.
Density	:	1,42 g/cm3 (23 °C)
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data is available on the product itself.
Partition coefficient: n-octanol/water	:	No data is available on the product itself.
Auto-ignition temperature	:	No data is available on the product itself.
Decomposition temperature	:	> 200 °C
Viscosity		
Viscosity, dynamic	:	50 000 - 100 000 mPa.s (20 °C)

9.2 Other Information

Explosive properties	:	No data is available on the product itself.
Oxidizing properties	:	No data is available on the product itself.
Burning rate	:	No data is available on the product itself.
Evaporation rate	:	No data is available on the product itself.

10. Stability and reactivity

10.1 Reactivity
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous reactions:
No hazards to be specially mentioned.

10.4 Conditions to avoid
Conditions to avoid:
None known.

10.5 Incompatible materials
Materials to avoid:
None known.

10.6 Hazardous decomposition products
Hazardous decomposition products:
carbon monoxide c
arbon dioxide
Nitrogen oxides (NOx)

11. Toxicological information

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

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

Components:
Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1- piperazinyl)ethyl]amino]butyl-terminated:

Acute oral toxicity	:	LD50 (Rat): > 15.4 g/kg
Acute dermal toxicity	:	LD50 (Rabbit): > 3 g/kg

Reaction mass of trientine and trientine, mono- and di-propoxylated:
Acute oral toxicity:
LD50 (Rat, male and female): 4 500 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity:
LD50 (Rat): >= 2 150 mg/kg
Method: OECD Test Guideline 402

bis(isopropyl)naphthalene:
Acute oral toxicity:
LD50 (Rat, male and female): 4 130 - 4 320 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is low toxic after single ingestion.

Acute inhalation toxicity:
LC50 (Rat, male and female): > 5,64 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity:
LD50 (Rat, male and female): > 4 500 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:
Acute oral toxicity: LD50 (Rat): 910 mg/kg
Method: OECD Test Guideline 401

Acute toxicity estimate: 910 mg/kg
Method: Calculation method

2,4,6-tris(dimethylaminomethyl)phenol:
Acute oral toxicity:
LD50 (Rat, male and female): 2 169 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is low toxic after single ingestion.

Acute dermal toxicity:
LD50 (Rat, male): > 1 ml/kg
Assessment: The substance or mixture has no acute dermal toxicity

3-aminopropyltriethoxysilane:
Acute oral toxicity:
LD50 (Rat, male and female): 1 491 - 2 688 mg/kg
Method: Acute Oral Toxicity

Acute toxicity estimate: 1 491 mg/kg
Method: Calculation method

Acute inhalation toxicity:
LC50 (Rat, male): > 5 ppm
Exposure time: 6 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity:
LD50 (Rabbit, male and female): 4 075 mg/kg
Method: Acute Dermal Toxicity
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation
Components:
2- Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1- piperazinyl)ethyl]amino]butyl-terminated:

Species	:	Rabbit
Assessment	:	Moderate skin irritant
Result	:	Irritating to skin.

Reaction mass of trientine and trientine, mono- and di-propoxylated:

Species	:	Rabbit
Exposure time	:	72 h
Method	:	OECD Test Guideline 404
Result	:	Irritating to skin.

bis(isopropyl)naphthalene:

Species	:	Rabbit
Exposure time	:	4 h
Assessment	:	No skin irritation
Method	:	OECD Test Guideline 404
Result	:	Normally reversible injuries

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Species	:	Rabbit
Assessment	:	Causes severe burns.
Result	:	Corrosive after 3 minutes or less of exposure

2,4,6-tris(dimethylaminomethyl)phenol:
Species : Rabbit
Method : OECD Test Guideline 404
Result : Corrosive after 1 to 4 hours of exposure

Species : synthetic macromolecular bio-barrier
Method : OECD Test Guideline 435
Result : Corrosive after 1 to 4 hours of exposure

3-aminopropyltriethoxysilane:
Species : Rabbit
Method : OECD Test Guideline 404
Result : Causes burns.

Serious eye damage/eye irritation
Components:
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1- piperazinyl)ethyl]amino]butyl-terminated:
Species : Rabbit
Assessment : Mild eye irritant
Result : slight irritation

Reaction mass of trientine and trientine, mono- and di-propoxylated:
Species : Rabbit
Result : Eye irritation

bis(isopropyl)naphthalene:
Species : Rabbit
Assessment : No eye irritation
Method : OECD Test Guideline 405
Result : No eye irritation

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:
Species : Rabbit
Method : OECD Test Guideline 405
Result : Corrosive

2,4,6-tris(dimethylaminomethyl)phenol:
Species : Rabbit
Assessment : Corrosive
Method : Other guidelines
Result : Corrosive

3-aminopropyltriethoxysilane:
Species : Rabbit
Method : OECD Test Guideline 405
Result : Risk of serious damage to eyes.

Respiratory or skin sensitisation
Components:
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1- piperazinyl)ethyl]amino]butyl-terminated:
Exposure routes : Skin
Species : Guinea pig
Method : OECD Test Guideline 406
Result : May cause sensitisation by skin contact.

Reaction mass of trientine and trientine, mono- and di-propoxylated:
Exposure routes : Skin
Species : CBA/Ca
Method : OECD Test Guideline 429
Result : Probability or evidence of low to moderate skin sensitization rate in humans
GLP : yes

bis(isopropyl)naphthalene:
Test Type : Maximisation Test
Exposure routes : Skin
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.
Assessment : May be harmful if swallowed or if inhaled
Does not cause skin sensitisation.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:
Exposure routes : Skin
Species : Guinea pig
Method : OECD Test Guideline 406
Result : The product is a skin sensitiser, sub-category 1A.

2,4,6-tris(dimethylaminomethyl)phenol:
Exposure routes : Skin
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.

3-aminopropyltriethoxysilane:
Exposure routes : Skin
Species : Guinea pig
Method : OECD Test Guideline 406
Result : The product is a skin sensitiser, sub-category 1A.

Germ cell mutagenicity
Components:
Reaction mass of trientine and trientine, mono- and di-propoxylated:
Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Test system:
Chinese hamster ovary cells
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Test Type: Ames test
Test system: Salmonella typhimurium
Method: OECD Test Guideline 471
Result: positive
GLP: yes
Test Type: Chromosome aberration test in vitro
Test system:
Chinese hamster ovary cells
Method: OECD Test Guideline 473
Result: negative
GLP: yes

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Germ cell mutagenicity-Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

bis(isopropyl)naphthalene:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Concentration: 9.5 - 60 µg/L
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Test Type: Ames test
Test system: Salmonella typhimurium
Concentration: 92 mg/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Concentration: 40 - 60 mg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo :Test Type: Micronucleus test
Species: Mouse (male and female)
Application Route: Intraperitoneal injection
Dose: 1.92 g/kg
Method: OECD Test Guideline 474
Result: negative

Germ cell mutagenicity-Assessment :Tests on bacterial or mammalian cell cultures did not showmutagenic effects.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Concentration: 5000 ug/plate
Metabolic activation: with and without metabolic activation
Method: Directive 67/548/EEC, Annex, B.13/14
Result: negative

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster ovary cells
Concentration: 2 mg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Application Route: Oral
Dose: 850 - 1000 mg/kg
Method: OECD Test Guideline 474
Result: negative

Genotoxicity in vivo : Species: Chinese hamster (male and female)
Cell type: Bone marrow
Application Route: Oral
Dose: 825 - 1000 mg/kg
Method: OECD Test Guideline 474
Result: negative

Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Application Route: Oral
Dose: 850 - 1000 mg/kg
Method: OECD Test Guideline 474
Result: negative

2,4,6-tris(dimethylaminomethyl)phenol:

Genotoxicity in vitro : Concentration: 5000 ug/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Concentration: 2500 ug/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

3-aminopropyltriethoxysilane:

Genotoxicity in vitro : Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo : Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity
No data available

Reproductive toxicity
Components:
Reaction mass of trientine and trientine, mono- and di-propoxylated:
Effects on fertility:
Test Type: Fertility
Species: Rat, male and female
Strain: wistar
Application Route: Ingestion
Dose: 100, 300 and 750 milligram per kilogram
General Toxicity - Parent:
NOAEL: Measured 750 mg/kg body weight
General Toxicity F1:
NOAEL: Measured 750 mg/kg body weight

Method: OECD Test Guideline 422
GLP: yes

Effects on foetal development:
Species: Rat, male and female
Strain: wistar
Application Route: Ingestion
Dose: 100, 300 and 750 milligram per kilogram
General Toxicity Maternal: NOAEL: Measured 300 mg/kg body weight
Developmental Toxicity: NOAEL: Measured 750 mg/kg body weight
Method: OECD Test Guideline 422
GLP: yes

Reproductive toxicity – Assessment:
No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

bis(isopropyl)naphthalene:
Effects on foetal development:
Species: Rat, female
Application Route: Oral Dose: 100, 250, 625 mg/kg
Duration of Single Treatment: 20 d
Frequency of Treatment: 7 days/week
General Toxicity Maternal: LOAEL: 250 mg/kg body weight
Teratogenicity: NOAEL: 625 mg/kg body weight
Embryo-foetal toxicity: NOAEL: 625 mg/kg body weight
Method: Directive 67/548/EEC, Annex V, B.31.
Result: No teratogenic effects

Reproductive toxicity – Assessment:
No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:
Effects on fertility:
Species: Rat, male and female
Application Route: Oral
Dose: 10, 60, 120 mg/kg bw/day
Method: OECD Test Guideline 416
Result: No effects on fertility and early embryonic development were detected.

Effects on foetal development:
Species: Rabbit, female
Application Route: Oral
General Toxicity Maternal: NOAEL: 50 000 ppm
Result: No teratogenic effects

Effects on fertility:
Species: Rat, male and female
Application Route: Oral
Method: OECD Test Guideline 422
Remarks: No significant adverse effects were reported

STOT - single exposure
No data available
STOT - repeated exposure

Components:
Reaction mass of trientine and trientine, mono- and di-propoxylated:
Exposure routes: Ingestion
Target Organs: Kidney
Assessment: No significant health effects observed at a concentration of 300mg/kg bw/day.

Repeated dose toxicity
Components:
Reaction mass of trientine and trientine, mono- and di-propoxylated:

Species	:	Rat, male and female
NOAEL	:	300 mg/kg bw/d
Application Route	:	Ingestion
Exposure time	:	43 - 44 Days
Method	:	OECD Test Guideline 422

bis(isopropyl)naphthalene:

Species	:Rat, male and female
NOAEL	:170 mg/kg
Application Route	:oral (feed)
Exposure time	:4 320 h
Number of exposures	:7 d
Dose	:170, 340, and 670 mg/kg
Method	:Subchronic toxicity
Remarks	:No significant adverse effects were reported
Repeated dose toxicity - Assessment	:May be harmful if swallowed or if inhaled. No adverse effect has been observed in chronic toxicity tests.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Species	:	Rat, male and female
NOAEL	:	10 mg/kg bw/day
Application Route	:	Ingestion
Exposure time	:	13 Weeks
Number of exposures	:	Daily
Dose	:	10, 60, 180mg/kg bw
Target Organs	:	Liver

Species	:	Rat, male and female
LOAEL	:	60 mg/kg bw/day
Application Route	:	Ingestion
Exposure time	:	13 Weeks
Number of exposures	:	Daily
Dose	:	10, 60, 180mg/kg bw
Target Organs	:	Liver

2,4,6-tris(dimethylaminomethyl)phenol:

Species	:	Rat, male and female
NOEL	:	15 mg/kg
Application Route	:	Ingestion
Exposure time	:	1 032 h
Number of exposures	:	7 d
Method	:	Subacute toxicity

3-aminopropyltriethoxysilane:

Species	:	Rat, male and female
NOAEL	:	200 mg/kg
Application Route	:	Ingestion
Exposure time	:	2 160 h
Method	:	Subchronic toxicity

Aspiration toxicity
Components:
bis(isopropyl)naphthalene:
May be fatal if swallowed and enters airways.

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

Experience with human exposure
No data available
Toxicology, Metabolism, Distribution
No data available
Neurological effects
No data available
Further information
No data available

12. Ecological information

12.1 Toxicity
Components
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1- piperazinyl)ethyl]amino]butyl-terminated:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1 000 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (No information available.): > 1 000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

Reaction mass of trientine and trientine, mono- and di-propoxylated:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): Measured > 4,1 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): Measured 48 mg/l Exposure time: 48 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: yes

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Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (algae)): Measured 4,1 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes ErC10 (Pseudokirchneriella subcapitata (algae)): Measured 0,11 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
Toxicity to microorganisms	:	EC10 (activated sludge): 38 mg/l Exposure time: 3 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 209

bis(isopropyl)naphthalene:

Toxicity to fish	:	LC50 : > 0,5 mg/l Exposure time: 96 h Test Type: semi-static test Method: Directive 67/548/EEC, Annex V, C.1. Remarks: No toxicity at the limit of solubility
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 0,16 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 Remarks: No toxicity at the limit of solubility EL50 (Daphnia magna (Water flea)): 1,7 mg/l Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	NOECr (Desmodesmus subspicatus (green algae)): ca. 0,15 mg/l Exposure time: 72 h Test Type: static test Method: DIN 38412 Remarks: Aquatic toxicity is unlikely due to low solubility.
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0,013 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test Test substance: Fresh water Method: OECD Test Guideline 202
M-Factor (Chronic aquatic toxicity)	:	1

Ecotoxicology Assessment

Acute aquatic toxicity	:	No toxicity at the limit of solubility

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2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 174 mg/l Exposure time: 48 h Method: DIN 38412
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 31,5 mg/l Exposure time: 24 h Method: DIN 38412
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (algae)): 43,5 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 EC50 (Pseudokirchneriella subcapitata (algae)): 37,1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (algae)): 16 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to microorganisms	:	IC50 (Pseudomonas putida): 89 mg/l Exposure time: 17 h
Toxicity to fish (Chronic toxicity)	:	NOEC: 10,9 mg/l Exposure time: 30 d Species: Brachydanio rerio (zebrafish) Method: OECD Test Guideline 210 Lowest Observed Effect Concentration: 10,9 mg/l Exposure time: 30 d Species: Brachydanio rerio (zebrafish) Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 1,02 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211 Lowest Observed Effect Concentration: 1,02 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
Toxicity to soil dwelling organisms	:	NOEC: >= 1 000 mg/kg Exposure time: 56 d Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 222 EC50: >= 1 000 mg/kg Exposure time: 56 d Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 222

2,4,6-tris(dimethylaminomethyl)phenol:

Toxicity to fish	:	LC50 (Cyprinus carpio (Carp)): 175 mg/l Exposure time: 96 h Test Type: static test Test substance: Fresh water
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Palaeomonetes vulgaris (Grass shrimp)): 718 mg/l End point: mortality Exposure time: 96 h Test Type: static test Analytical monitoring: no Test substance: Marine water
Toxicity to algae/aquatic plants	:	ErC50 (Desmodesmus subspicatus (green algae)): 84 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Test substance: Fresh water Method: OECD Test Guideline 201 NOEC (Desmodesmus subspicatus (green algae)): 6,25 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Test substance: Fresh water Method: OECD Test Guideline 201

3-aminopropyltriethoxysilane:

Toxicity to fish	:	LC50 (Brachydanio rerio (zebrafish)): > 934 mg/l Exposure time: 96 h Test Type: semi-static test Test substance: Fresh water Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 331 mg/l Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): > 1 000 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: Directive 67/548/EEC, Annex V, C.3.
Toxicity to microorganisms	:	EC50 (Pseudomonas putida): 43 mg/l Exposure time: 5,75 h Test Type: static test Test substance: Fresh water

12.2 Persistence and degradability
Components:
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1- piperazinyl)ethyl]amino]butyl-terminated:
Biodegradability:
Result: Not readily biodegradable.

Reaction mass of trientine and trientine, mono- and di-propoxylated:

Biodegradability : Inoculum: Domestic sewage
Concentration: 100 mg/l
Result: Not readily biodegradable.
Biodegradation: 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Stability in water : Degradation half life (DT50): > 1 yr (25 °C)
pH: 4
Method: OECD Test Guideline 111

Degradation half life (DT50): > 1 yr (25 °C)
pH: 7
Method: OECD Test Guideline 111

Degradation half life (DT50): > 1 yr (25 °C)
pH: 9
Method: OECD Test Guideline 111

bis(isopropyl)naphthalene:

Biodegradability : Inoculum: activated sludge
Concentration: 0,2 mg/l
Result: Not readily biodegradable.
Biodegradation: 30 - 35 %
Exposure time: 56 d
Method: OECD Test Guideline 310

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Biodegradability : Inoculum: activated sludge
Concentration: 11,4 mg/l
Result: Not readily biodegradable.
Biodegradation: 7 %
Exposure time: 28 d

2,4,6-tris(dimethylaminomethyl)phenol:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge, non-adapted
Concentration: 2 mg/l
Result: Not biodegradable
Biodegradation: 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

3-aminopropyltriethoxysilane:

Biodegradability : Inoculum: activated sludge
Concentration: 8,95 mg/l
Result: Not readily biodegradable.
Biodegradation: 67 %
Exposure time: 28 d
Method: Directive 67/548/EEC Annex V, C.4.A.

12.3 Bioaccumulative potential
Components:
Reaction mass of trientine and trientine, mono- and di-propoxylated:
Partition coefficient n-octanol/water: logPow: -2,42

bis(isopropyl)naphthalene:

Bioaccumulation	:	Species: Cyprinus carpio (Carp) Exposure time: 60 d Bioconcentration factor (BCF): 770 - 6 400 Test substance: Fresh water Method: flow-through test
Partition coefficient: n-octanol/water	:	log Pow: 6,081 Method: QSAR

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine:

Partition coefficient: n-octanol/water	:	log Pow: -0,3 (25 °C) Method: OECD Test Guideline 117

2,4,6-tris(dimethylaminomethyl)phenol:

Partition coefficient: n-octanol/water	:	Pow: >= 0,219 (21,5 °C) log Pow: -0,66 (21,5 °C) Method: OPPTS 830.7550

3-aminopropyltriethoxysilane:

Bioaccumulation	:	Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): 3,4 Remarks: Does not bioaccumulate.
Partition coefficient: n-octanol/water	:	log Pow: 1,7 (20 °C) pH: 7

12.4 Mobility in soil
Components:
bis(isopropyl)naphthalene:
Distribution among environmental compartments:
Koc: 36108
Method: QSAR

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

Components:
Reaction mass of trientine and trientine, mono- and di-propoxylated:
Assessment:
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

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

12.7 Other adverse effects
Product:
Additional ecological information:
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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Harmful to aquatic life.
Toxic to aquatic life with long lasting effects.

13. Disposal considerations

13.1 Waste treatment methods
Product:
Dispose of contents and container in accordance with all local, regional, national and international regulations.
Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging:
Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

14. Transport information

14.1 UN number or ID number

ADN	:	UN 2735
ADR	:	UN 2735
RID	:	UN 2735
IMDG	:	UN 2735
IATA	:	UN 2735

14.2 UN proper shipping name

ADN	:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (TRIMETHYLHEXAMETHYLENEDIAMINE, 2,4,6-TRIS(DIMETHYL AMINOMETHYL)PHENOL)
ADR	:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (TRIMETHYLHEXAMETHYLENEDIAMINE, 2,4,6-TRIS(DIMETHYL AMINOMETHYL)PHENOL)
RID	:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (TRIMETHYLHEXAMETHYLENEDIAMINE, 2,4,6-TRIS(DIMETHYL AMINOMETHYL)PHENOL)
IMDG	:	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (TRIMETHYLHEXAMETHYLENEDIAMINE, 2,4,6-TRIS(DIMETHYL AMINOMETHYL)PHENOL)
IATA	:	Polyamines, liquid, corrosive, n.o.s. (TRIMETHYLHEXAMETHYLENEDIAMINE, 2,4,6-TRIS(DIMETHYL AMINOMETHYL)PHENOL)

14.3 Transport hazard class(es)

ADN	:	8
ADR	:	8
RID	:	8
IMDG	:	8
IATA	:	8

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14.1 Packing group

ADN

Packing group	:	III
Classification Code	:	C7
Hazard Identification Number	:	80
Labels	:	8

ADR

Packing group	:	III
Classification Code	:	C7
Hazard Identification Number	:	80
Labels	:	8
Tunnel restriction code	:	(E)

RID

Packing group	:	III
Classification Code	:	C7
Hazard Identification Number	:	80
Labels	:	8

IMDG

Packing group	:	III
Labels	:	8
EmS Code	:	F-A, S-B

IATA (Cargo)

Packing instruction (cargo aircraft)	:	856
Packing instruction (LQ)	:	Y841
Packing group	:	III
Labels	:	Corrosive

IATA (Passenger)

Packing instruction (passenger aircraft)	:	852
Packing instruction (LQ)	:	Y841
Packing group	:	III
Labels	:	Corrosive

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes (DIISOPROPYLNAPHTHALENE ISOMERS, TRIETHYLENE TETRAMINE PROPOXYLATED)

14.6 Special precautions for user

Not applicable

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14.7 Maritime transport in bulk according to IMO instruments
Not applicable for product as supplied.

15. Regulatory information

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

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Water hazard class (Germany) : WGK 3 highly hazardous to water
Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) : Total dust:
Not applicable
: Inorganic substances in powdered form:Not applicable
: Inorganic substances in vapour or gaseous form:Not applicable
: Organic Substances:
Not applicable
: Carcinogenic substances:
Not applicable
: Mutagenic:
Not applicable
: Toxic to reproduction:
Not applicable

Other regulations:
Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

The components of this product are reported in the following inventories:
DSL: All components of this product are on the Canadian
AIIC: On the inventory, or in compliance with the inventory
NZIoC: On the inventory, or in compliance with the inventory
ENCS: On the inventory, or in compliance with the inventory
KECI: On the inventory, or in compliance with the inventory
PICCS: Not in compliance with the inventory
IECSC: On the inventory, or in compliance with the inventory
TCSI: On the inventory, or in compliance with the inventory
TSCA: All substances listed as active on the TSCA inventory

Inventories
AICS (Australia), AIIC (Australia), DSL (Canada), IECSC (China), ENCS (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (United States of America (USA))

15.2 Chemical safety assessment
Chemical Safety Assessments for all substances in this product are either Complete or Not applicable.

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16. Other information

Full text of H-Statements

H302 : Harmful if swallowed.
H304 : May be fatal if swallowed and enters airways.
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.
H410 : Very toxic to aquatic life with long lasting effects.
H411 : Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Chronic : Long-term (chronic) aquatic hazard
Asp. Tox. : Aspiration hazard
Eye Dam. : Serious eye damage
Eye Irrit. : Eye irritation
Skin Corr. : Skin corrosion
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation
DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.
DE TRGS 900 / AGW : Time Weighted Average

Further Information

Classification of the mixture:		**Classification procedure:**
Skin Corr. 1A	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 2	H411	Calculation method

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