BondPro 215 Hardener

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 07/02/2025 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Name : BondPro 215 Hardener
Type of product : Hardener (Crosslinker)
Product group : Hardener

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

Relevant identified uses

Main use category : Industrial use,Professional use

1.3. Details of the supplier of the safety data sheet

Supplier
Gurit (UK) Ltd
St Cross Business Park
Newport
GBR PO30 5WU Isle of Wight
United Kingdom
T +44 (0) 1983 828 000 (All Technical and Commercial Enquiries)
Regulatory@Gurit.com, www.gurit.com

Other
Gurit Spain SA
Polígono Industrial Romica C/K
Parcela 11C, APDO.447
ESP 02080 Albacete
Spain
T +34 967 254 507, F +34 967 254 005
Regulatory@gurit.com, www.Gurit.com

1.4. Emergency telephone number

Emergency number : Carechem 24Hrs: +44 (0) 1273 289451
Telephone number for use in case of chemical exposure, spillage or fire only.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 1, Sub-Category 1B	H314
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS05 GHS07 GHS09

Signal word (CLP) : Danger

Contains	:	Diethylene glycol bis(3-aminopropyl) ether; Phenol,2,4,6-tris[(dimethylamino)methyl]-; 3-aminomethyl-3,5,5-trimethylcyclohexylamine; Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine and (chloromethyl)oxirane; 2,2'-iminodiethylamine; diethylenetriamine; FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH DIETHYLENETRIAMINE
Hazard statements (CLP)	:	H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	:	P260 - Do not breathe vapours. P264 - Wash hands thoroughly after handling. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH DIETHYLENETRIAMINE	CAS-No.: 1226892-43-8 EC-No.: 629-715-1 REACH-no: 01-2119487013-43	10 – 50	Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Phenol,2,4,6-tris[(dimethylamino)methyl]-	CAS-No.: 90-72-2 EC-No.: 202-013-9 EC Index-No.: 603-069-00-0 REACH-no: 01-2119560597-27	5 – 25	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Eye Dam. 1, H318
Diethylene glycol bis(3-aminopropyl) ether	CAS-No.: 4246-51-9 EC-No.: 224-207-2 REACH-no: 01-2119963377-26	1 – 5	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317
benzyl alcohol	CAS-No.: 100-51-6 EC-No.: 202-859-9 EC Index-No.: 603-057-00-5 REACH-no: 01-2119492630-38	1 – 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319
3-aminomethyl-3,5,5-trimethylcyclohexylamine	CAS-No.: 2855-13-2 EC-No.: 220-666-8 EC Index-No.: 612-067-00-9 REACH-no: 01-2119514687-32	1 – 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 3, H412

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine and (chloromethyl)oxirane	CAS-No.: 38294-64-3; 38294-64-3 EC-No.: 500-101-4 REACH-no: 01-2119965165-33	1 – 5	Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
2,2'-iminodiethylamine; diethylenetriamine substance with national workplace exposure limit(s) (GB)	CAS-No.: 111-40-0 EC-No.: 203-865-4 EC Index-No.: 612-058-00-X REACH-no: 01-2119473793-27	< 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits (%)**
3-aminomethyl-3,5,5-trimethylcyclohexylamine	CAS-No.: 2855-13-2 EC-No.: 220-666-8 EC Index-No.: 612-067-00-9 REACH-no: 01-2119514687-32	(0,001 ≤ C ≤ 100) Skin Sens. 1A; H317

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

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 : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	:	Evacuate area.
Firefighting instructions	:	Exercise caution when fighting any chemical fire.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	:	Collect contaminated fire fighting water seperately. It must not enter drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment	:	Protective clothing.
Emergency procedures	:	Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	:	Collect spillage.
Methods for cleaning up	:	Take up liquid spill into absorbent material.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures	:	Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Separate working clothes from town clothes. Launder separately. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Store locked up. Store in a well-ventilated place. Keep cool.
Storage temperature	:	≤ 30 °C Possible pressure build-up
Storage area	:	Store away from heat. Store in a well-ventilated place.
Special rules on packaging	:	Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
United Kingdom - Occupational Exposure Limits	
Local name	2,2'-Iminodi(ethylamine)
WEL TWA (OEL TWA)	4,3 mg/m³
	1 ppm
WEL STEL (OEL STEL)	12,9 mg/m³ (calculated)
	3 ppm (calculated)
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
WEL chemical category	Potential for cutaneous absorption
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment symbol(s):

Eye and face protection

Eye protection:
Safety glasses

Skin protection

Skin and body protection:
Wear suitable protective clothing

Skin and body protection	
Type	**Standard**
Tyvek® Gown/Coveralls	EN 13034

Hand protection:
Protective gloves. Time of penetration is to be checked with the glove producer

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
Disposable gloves	Nitrile rubber (NBR)	0 (< 10 minutes)	0.26mm		EN ISO 374

Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Respiratory protection			
Device	**Filter type**	**Condition**	**Standard**
Disposable half mask	Gas/vapour filter	Vapour protection	EN 405

Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.
Other information:
Industrial and professional. Perform risk assessment prior to use. Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Not available
Odour	:	Amine-like.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Not applicable
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	Not available
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Not available
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	Not available
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. Product is not explosive.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Diethylene glycol bis(3-aminopropyl) ether (4246-51-9)	
LD50 oral rat	4290 mg/kg
LD50 dermal rabbit	2510 mg/kg

Phenol,2,4,6-tris[(dimethylamino)methyl]- (90-72-2)	
LD50 oral rat	2169 mg/kg

benzyl alcohol (100-51-6)	
LD50 oral	1580 mg/kg bodyweight Animal: mouse, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1410 - 1770
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity), Remarks on results: other:
LC50 Inhalation - Rat	> 4178 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Remarks on results: other:

3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	
LD50 oral rat	1030 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	5,01 mg/l/4h

2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
LD50 oral rat	1080 mg/kg
LD50 dermal rabbit	672 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	0,07 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns.

Diethylene glycol bis(3-aminopropyl) ether (4246-51-9)	
pH	> 12

Phenol,2,4,6-tris[(dimethylamino)methyl]- (90-72-2)	
pH	11,3

2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
pH	12 (conc: 100 g/L (DTA in water)

FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (1226892-43-8)	
pH	10

Serious eye damage/irritation : Causes serious eye damage.

Diethylene glycol bis(3-aminopropyl) ether (4246-51-9)	
pH	> 12

Phenol,2,4,6-tris[(dimethylamino)methyl]- (90-72-2)	
pH	11,3

2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
pH	12 (conc: 100 g/L (DTA in water)

FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (1226892-43-8)	
pH	10

Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified

2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

benzyl alcohol (100-51-6)	
NOAEL (oral, rat, 90 days)	400 mg/kg bodyweight Animal: rat, Guideline: other:

Aspiration hazard : Not classified

Diethylene glycol bis(3-aminopropyl) ether (4246-51-9)	
Viscosity, kinematic	12,9 mm²/s

Phenol,2,4,6-tris[(dimethylamino)methyl]- (90-72-2)	
Viscosity, kinematic	24,691 mm²/s

benzyl alcohol (100-51-6)	
Viscosity, kinematic	0,005 mm²/s

FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (1226892-43-8)	
Viscosity, kinematic	100 mm²/s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute) : Very toxic to aquatic life.
Hazardous to the aquatic environment, long–term (chronic) : Very toxic to aquatic life with long lasting effects.

Phenol,2,4,6-tris[(dimethylamino)methyl]- (90-72-2)	
LC50 - Fish [1]	175 mg/l Test organisms (species): Cyprinus carpio
LC50 - Fish [2]	180 – 240 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)

Phenol,2,4,6-tris[(dimethylamino)methyl]- (90-72-2)	
EC50 72h - Algae [1]	84 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

benzyl alcohol (100-51-6)	
LC50 - Fish [1]	460 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	230 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	770 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	500 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	76828 mg/l Test organisms (species): other:
NOEC chronic fish	48897 mg/l Test organisms (species): other: Duration: '30 d'

3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	
EC50 - Crustacea [1]	14,6 – 21,5 mg/l (48 h - Species: Daphnia magna [semi-static])
EC50 72h - Algae [1]	37 mg/l (Species: Desmodesmus subspicatus)

2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
LC50 - Fish [1]	248 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [static])
LC50 - Fish [2]	1014 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [semi-static])
EC50 - Crustacea [1]	16 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	1164 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 96h - Algae [1]	345,6 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 96h - Algae [2]	592 mg/l (Species: Desmodesmus subspicatus)

12.2. Persistence and degradability

BondPro 215 Hardener	
Persistence and degradability	Rapidly degradable

Diethylene glycol bis(3-aminopropyl) ether (4246-51-9)	
Persistence and degradability	Rapidly degradable

Phenol,2,4,6-tris[(dimethylamino)methyl]- (90-72-2)	
Persistence and degradability	Rapidly degradable

benzyl alcohol (100-51-6)	
Persistence and degradability	Rapidly degradable

3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	
Persistence and degradability	Rapidly degradable

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine and (chloromethyl)oxirane (38294-64-3)	
Persistence and degradability	Rapidly degradable

2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
Persistence and degradability	Rapidly degradable

FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (1226892-43-8)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

benzyl alcohol (100-51-6)	
Partition coefficient n-octanol/water (Log Pow)	1,1

3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	
Partition coefficient n-octanol/water (Log Pow)	0,79 (at 23 °C)

2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
BCF - Fish [1]	0,3 – 1,7
Partition coefficient n-octanol/water (Log Pow)	-1,3

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
Ecological information : Avoid release to the environment.
European List of Waste (LoW, EC 2000/532) : 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
14.1. UN number or ID number		
UN 2735	UN 2735	UN 2735
14.2. UN proper shipping name		
POLYAMINES, LIQUID, CORROSIVE, N.O.S.	POLYAMINES, LIQUID, CORROSIVE, N.O.S.	Polyamines, liquid, corrosive, n.o.s.

ADR	IMDG	IATA
Transport document description		
UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Phenol,2,4,6-tris[(dimethylamino)methyl]- ; Diethylene glycol bis(3-aminopropyl) ether), 8, II, (E), ENVIRONMENTALLY HAZARDOUS	UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Phenol,2,4,6-tris[(dimethylamino)methyl]- ; Diethylene glycol bis(3-aminopropyl) ether), 8, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 2735 Polyamines, liquid, corrosive, n.o.s. (Phenol,2,4,6-tris[(dimethylamino)methyl]- ; Diethylene glycol bis(3-aminopropyl) ether), 8, II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)		
8	8	8
		
14.4. Packing group		
II	II	II
14.5. Environmental hazards		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes EmS-No. (Fire): F-A EmS-No. (Spillage): S-B	Dangerous for the environment: Yes
No supplementary information available		

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C7
Special provisions (ADR) : 274
Limited quantities (ADR) : 1l
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T11
Portable tank and bulk container special provisions (ADR) : TP1, TP27
Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 80
Orange plates :

Tunnel restriction code (ADR) : E
EAC code : 2X

Transport by sea

Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T11
Tank special provisions (IMDG) : TP1, TP27
Stowage category (IMDG) : A
Segregation (IMDG) : SGG18, SG35

Properties and observations (IMDG)	:	Colourless to yellowish liquids or solutions with a pungent odour. Miscible with or soluble in water. When involved in a fire, evolve toxic gases. Corrosive to most metals, especially to copper and its alloys. Reacts violently with acids. Cause burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y840
PCA limited quantity max net quantity (IATA)	:	0.5L
PCA packing instructions (IATA)	:	851
PCA max net quantity (IATA)	:	1L
CAO packing instructions (IATA)	:	855
CAO max net quantity (IATA)	:	30L
Special provisions (IATA)	:	A3, A803
ERG code (IATA)	:	8L

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List < 0.1% or SCL.

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

Germany

Air Quality Control (TA Luft)					
Category	Class	Applicable on	Local name	Max. mass flow	Max. mass concentration

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
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.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Corr. 1B	H314	Calculation method

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

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