

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 320 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
 Other

 Gurit (UK) Ltd
 Gurit Spain SA

St Cross Business Park

Polígono Industrial Romica C/K

Newport

Parcela 11C, APDO.447

GBR PO30 5WU Isle of Wight ESP 02080 Albacete

United Kingdom Spain

T +44 (0) 1983 828 000 (All Technical and Commercial Enquiries)

T +34 967 254 507, F +34 967 254 005

Regulatory@Gurit.com, www.gurit.com

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 H314
Serious eye damage/eye irritation, Category 1 H318
Skin sensitisation, Category 1 H317
Reproductive toxicity, Category 2 H361
Specific target organ toxicity – Repeated exposure, Category 1 H372
Hazardous to the aquatic environment – Chronic Hazard, H412

Category 3

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

Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. May cause an allergic skin reaction. Causes serious eye damage. Harmful 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

GHS08

Signal word (CLP) : Dange

Contains : Propylene glycol diamine, 2-amino-, diether with Propylene; 3-aminomethyl-3,5,5-

trimethylcyclohexylamine; 2-piperazin-1-ylethylamine

Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

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Precautionary statements (CLP)

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

H361 - Suspected of damaging fertility or the unborn child.

H372 - Causes damage to organs (respiratory tract) through prolonged or repeated

exposure.

H412 - Harmful to aquatic life with long lasting effects.

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe vapours.

P264 - Wash hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P272 - Contaminated work clothing should not be allowed out of the workplace.

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]
Propylene glycol diamine, 2-amino-, diether with Propylene	CAS-No.: 9046-10-0 EC-No.: 618-561-0 REACH-no: 01-2119557899- 12	< 50	Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412
2-piperazin-1-ylethylamine	CAS-No.: 140-31-8 EC-No.: 205-411-0 EC Index-No.: 612-105-00-4 REACH-no: 01-2119471486- 30	< 25	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 2, H361 STOT RE 1, H372 Aquatic Chronic 3, H412
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	< 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 3, H412

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

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash

occurs: Get medical advice/attention.

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 : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

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. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact

with skin and eyes.

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. Notify authorities if product enters sewers or

public waters.

Other information : Dispose of materials or solid residues at an authorized site.

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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. Obtain special instructions before use. Do not

handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with

skin and eyes.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash

contaminated clothing before reuse. 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

No additional information available

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	
Туре	Standard
Tyvek® Gown/Coveralls	EN 13034

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Hand protection:

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

Hand protection					
Туре	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 inadequate ventilation] wear respiratory protection. 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 : Purple. Colour Appearance : Paste. Odour : Amine-like. Odour threshold : Not available Melting point : Not applicable Freezing point : Not available Boiling point : Not available Flammability : Not applicable

Explosive properties : Product is not explosive.

Lower explosion limit : Not available Upper explosion limit : Not available Flash point : Not available Auto-ignition temperature : Not available Decomposition temperature : Not available рΗ : ≈ 11,5 : Not available Viscosity, kinematic : 25 °C Viscosity, dynamic Solubility : Not available Partition coefficient n-octanol/water (Log Kow) : Not available Not available Vapour pressure Vapour pressure at 50°C Not available Density 1,11 g/cm³ Relative density Not available Relative vapour density at 20°C Not available Particle characteristics : Not applicable

9.2. Other information

No additional information available

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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

Propylene glycol diamine, 2-amino-, diether with Propylene (9046-10-0)	
2885 mg/kg	
2980 mg/kg	
Ī	

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-piperazin-1-ylethylamine (140-31-8)

LD50 oral	2140 mg/kg
LD50 dermal rabbit	866 mg/kg
Ckin correction/irritation	· Coupos sovere ekin hurne

Skin corrosion/irritation : Causes severe skin burns.

pH: ≈ 11,5

Propylene glycol diamine, 2-amino-, diether with Propylene (9046-10-0)

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Serious eye damage/irritation : Causes serious eye damage.

pH: ≈ 11,5

Propylene glycol diamine, 2-amino-, diether with Propylene (9046-10-0)

pH	1	1	,	E

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

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STOT-single exposure : Not classified

STOT-repeated exposure : Causes damage to organs (respiratory tract) through prolonged or repeated exposure.

2-piperazin-1-ylethylamine (140-31-8)

STOT-repeated exposure Causes damage to organs (respiratory tract) through prolonged or repeated exposure

(inhalation).

Aspiration hazard : Not classified

Propylene glycol diamine, 2-amino-, diether with Propylene (9046-10-0)

Viscosity, kinematic 10,8 mm²/s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term : Not classified

acute

Hazardous to the aquatic environment, long-term : Harmful to aquatic life with long lasting effects.

(chronic)

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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-piperazin-1-ylethylamine (140-31-8)	
LC50 - Fish [1]	1950 – 2460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 - Fish [2]	> 1000 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [semi-static])
EC50 - Crustacea [1]	32 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	495 mg/l (Species: Pseudokirchneriella subcapitata)

12.2. Persistence and degradability

BondPro 320 Hardener	
Persistence and degradability	Rapidly degradable
Propylene glycol diamine, 2-amino-, diether w	rith Propylene (9046-10-0)
Persistence and degradability	Rapidly degradable
3-aminomethyl-3,5,5-trimethylcyclohexylamin	e (2855-13-2)
Persistence and degradability	Rapidly degradable
2-piperazin-1-ylethylamine (140-31-8)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

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

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2-piperazin-1-ylethylamine (140-31-8)	
BCF - Fish [1]	(no bioaccumulation expected)
Partition coefficient n-octanol/water (Log Pow)	-1,48

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

Waste treatment methods

Product/Packaging disposal recommendations

Ecological information

European List of Waste (LoW, EC 2000/532)

- : Disposal must be done according to official regulations.
- Dispose of contents/container in accordance with licensed collector's sorting instructions.
- Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
- : Avoid release to the environment.
- : 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.		
Transport document description				
UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Propylene glycol diamine, 2-amino-, diether with Propylene; 3-aminomethyl-3,5,5-trimethylcyclohexylamine), 8, II, (E)	UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Propylene glycol diamine, 2-amino-, diether with Propylene; 3-aminomethyl-3,5,5-trimethylcyclohexylamine), 8, II	UN 2735 Polyamines, liquid, corrosive, n.o.s. (Propylene glycol diamine, 2-amino-, diether with Propylene; 3-aminomethyl-3,5,5-trimethylcyclohexylamine), 8, II		
14.3. Transport hazard class(es)				
8	8	8		
8	8			
14.4. Packing group				
II	II	II		

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ADR	IMDG	IATA		
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No EmS-No. (Fire): F-A EmS-No. (Spillage): S-B	Dangerous for the environment: No		
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C7 Special provisions (ADR) : 274 Limited quantities (ADR) : 11 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 : TP1, TP27

(ADR)

: L4BN Tank code (ADR) Vehicle for tank carriage : AT 2 Transport category (ADR) 80 :

Hazard identification number (Kemler No.) Orange plates

80 2735

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

Transport by sea

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

Stowage category (IMDG)

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

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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 no substance(s) listed on the REACH Candidate List

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 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. 3 (Dermal)	Acute toxicity (dermal), Category 3	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Repr. 2	Reproductive toxicity, 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	

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Full text of H- and EUH-statements:		
Skin Sens. 1A	Skin sensitisation, category 1A	
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1	
H302	Harmful if swallowed.	
H311	Toxic in contact with skin.	
H314	Causes severe skin burns and eye damage.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H361	Suspected of damaging fertility or the unborn child.	
H372	Causes damage to organs (respiratory tract) through prolonged or repeated exposure.	
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. 1	H314	On basis of test data
Eye Dam. 1	H318	On basis of test data
Skin Sens. 1	H317	Calculation method
Repr. 2	H361	Calculation method
STOT RE 1	H372	Calculation method
Aquatic Chronic 3	H412	Calculation method

Safety Data Sheet (SDS), EU

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