

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

#### 1.1 Product identifier

Name **BI BOND Component B**

#### 1.2. Identified relevant uses of the substance or mixture and non-recommended uses

Description/Use **Hardening for epoxy plaster**

#### 1.3. Supplier information of the safety data sheet

Company Name	<b>VOLTECO Spa</b>
Address	<b>Via delle Industrie, 47</b>
District and Country	<b>31050 Ponzano Veneto (TV) - IT</b>
Telephone	<b>+39 0422 9663</b>
Fax	<b>+39 0422 966401</b>
e-mail address of the person in charge of the safety data sheet	<b>volteco@volteco.it</b>

#### 1.4. Emergency telephone number

For urgent enquiries, please contact **+39 0422 9663**

### SECTION 2. Hazards identification

#### 2.1 Classification of the substance or mixture

Product definition **Mixture**

The product is classified as dangerous pursuant to the provisions stipulated in EC Regulation No. 1272/2008 (CLP) as amended. The product requires a safety data sheet that complies with the provisions of EC Regulation No. 1907/2006 and subsequent amendments.

Any additional information concerning the risks for health and/or the environment are given in Sections 11 and 12 of this data sheet.

##### 2.1.1 EC Regulation No. 1272/2008 as amended

##### Classification and hazard statements

<b>Skin Corr. 1B</b>	<b>H314</b>	Causes severe skin burns and eye damage.
<b>Skin Sens. 1</b>	<b>H317</b>	May cause an allergic skin reaction.
<b>Eye Dam. 1</b>	<b>H318</b>	Causes serious eye damage.

#### 2.2 Label elements

Hazard labelling pursuant to EC Regulation No. 1272/2008 (CLP) as amended.

##### Hazard pictograms



Warnings **Hazard**

##### Hazard statements

<b>H314</b>	Causes severe skin burns and eye damage.
<b>H317</b>	May cause an allergic skin reaction.
<b>EUH071</b>	Corrosive for the respiratory tract
<b>EUH208</b>	Contains: Triethylenetetramine, Tetraethylenepentamine. May cause an allergic reaction.

##### Precautionary tips

<b>P264</b>	Wash hands before breaks and at the end of the work shift.
<b>P280</b>	Wear protective gloves/clothing, protect eyes/face.
<b>P304+P340</b>	In case of inhalation, take the affected individual outdoors.
<b>P310</b>	Immediately call a POISON CONTROL CENTRE

**Contains** 2,4,6-TRI(DIMETIL-AMINOMETILE) FENOLO  
3-AMINOMETIL 3,5,5-TRIMETILCICLOESILAMINA  
M-FENILENEBIS (METILAMMINA)

#### 2.3 Other hazards

Based on available data, the product does not contain PBT or vPvB substances in percentages exceeding 0.1%.



### SECTION 3. Composition/information on ingredients

#### 3.1 Substance/Mixture

Declaration of the ingredients in accordance with EC Regulation No. 1272/2008 (CLP)

Name Hazardous component	CAS	EC	%	Classification
<i>Triethylenetetramine</i>	112-24-3	203-950-6	0.4 <= C < 0.5	Acute Oral Tox. 4, H302 Acute Dermal Tox. 4, H312 Eye Dam. 1, H318 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
<i>Tetraethylenepentamine</i>	112-57-2	203-986-2	0.4 <= C < 0.5	Acute Oral Tox. 4, H302 Acute Dermal Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chron. 2, H411
<i>3-amminometil-3,5,5-trimetilci cloesilammina</i> REACH n.: 01-2119514687-32-XXXX	2855-13-2	220-666-8	1.5 <= C < 1.8	Acute Oral Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
<i>M-xylylenediamine</i>	1477-55-0	216-032-5	1 <= C < 1.5	Acute Oral Tox. 4, H302 Acute Tox. 3, H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
<i>Benzyl Alcohol</i> REACH No.: 01-21-194922630-38-xxxx	100-51-6	202-859-9	2.5 <= C < 3.5	Acute Oral Tox. 4, H302 Inhalation Acute Tox. 4, H332 Eye Irrit. 2, H319
<i>2,4,6 Tris(dimetil- aminometil)fenolo</i> REACH n.: 01-2119560597-27	90-72-2	202-013-9	1.5 <= C < 5	Skin Corr. 1B, H314 Skin Sens.1, H317 Aquatic Chronic 3, H412

The full wording of the Hazard statements (H) is given in Section 16 of the data sheet.

### SECTION 4. First aid measures

#### 4.1 Description of the first aid measures

<b>Contact with skin</b>	Wash immediately with plenty of water and soap. Remove the contaminated clothing and dispose of them in a safe manner.
<b>Contact with eyes</b>	Wash immediately with plenty of water for a suitable amount of time. Remove any contact lenses. Call an ophthalmologist.
<b>Swallowing</b>	Do not induce vomiting. Call a doctor immediately.
<b>Inhalation</b>	Take the affected individual outdoors. If symptoms persist, seek medical attention.

#### 4.2 Main symptoms and effects, both acute and delayed

<b>Contact with skin</b>	May cause inflammation and sensitisation.
<b>Contact with eyes</b>	May cause irritations that can last up to 24 hours.
<b>Swallowing</b>	Irritation of the mucous membranes of the throat and stomach.
<b>Inhalation</b>	No known significant effects or critical hazards.

#### 4.3 Indication of any immediate medical attention and special treatment needed

In case of accident or illness, call a doctor and show him/her the safety data sheet.

There are no specific treatments.

### SECTION 5. Fire-fighting measures

#### 5.1 Extinguishing agents

<b>Suitable extinguishing agents</b>	CO <sub>2</sub> , foam, powder. Cool the containers that are exposed to the fire with water.
<b>Unsuitable extinguishing agents</b>	None known.



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### 5.2 Risks from combustion

Avoid breathing in the fumes, gases and vapours produced by combustion.

During combustion, toxic gases such as nitrous gases, carbon oxide, etc... may develop

### 5.3 Recommendations for those in charge of putting out fires

#### Special protective actions

Promptly isolate the area and remove all people. Move unaffected containers to a safe zone. Collect the water used for extinguishing in specific containers, do not release it into the sewers.

#### Protective clothing

Use suitable clothing, gloves and full face mask. Work with suitable breathing apparatus.

## SECTION 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment.

Move people to a safe place.

### 6.2 Environmental precautions

Contain the spread with sand or inert absorbent material.

Keep the product away from drains, surface and ground water; if the product is released into watercourses, sewers or if it contaminates the soil and vegetation, notify the competent authorities.

### 6.3 Methods and materials for containment and cleaning up

Absorb with inert materials and eliminate according to the law.

Wash with water and detergents.

### 6.4 Reference to other sections

Refer to Chapter 7 for information on safe handling.

Refer to Chapter 8 for information on personal protective equipment.

Refer to Chapter 13 for information on disposal.

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

#### Protective measures

Avoid contact with skin and eyes. Avoid inhaling vapours. Work with the individual precautions set forth in Point 8. Do not eat or drink whilst working. Contaminated clothing must be replaced before accessing the lunch areas. Do not use empty containers before they have been cleaned.

### 7.2 Conditions for safe storage, including any incompatibility

Store in closed recipients in a cool place.

Keep away from food, beverages and feed.

Indications for rooms: operate in a duly-aerated site.

Incompatible materials: None.

### 7.3 Specific end uses

No additional information for specific end uses (see Section 1.2).

## SECTION 8. Exposure control/personal protection

### 8.1 Control parameters

#### DNEL exposure limit values

Name of product/ingredient	Type	Exposure level	Effects on health	Effects	Value	Population
Triethylenetetramine CAS: 112-24-3	DNEL	Dermal	Long term	Systemic	0.57 mg/kg	Workers
	DNEL	Inhalation	Short-time	Systemic	5380 mg/m <sup>3</sup>	Workers
	DNEL	Inhalation	Long term	Systemic	1 mg/m <sup>3</sup>	Workers
	DNEL	Dermal	Long term	Local	0.028 mg/m <sup>3</sup>	Workers
	DNEL	Dermal	Long term	Local	0.43 mg/cm <sup>2</sup>	Consumers
	DNEL	Inhalation	Short-time	Systemic	1600 mg/m <sup>3</sup>	Consumers
	DNEL	Inhalation	Long term	Systemic	0.29 mg/m <sup>3</sup>	Consumers
	DNEL	Dermal	Short-time	Systemic	8 mg/kg	Consumers
	DNEL	Oral	Short-time	Systemic	20 mg/kg	Consumers
	DNEL	Dermal	Short-time	Local	1 mg/cm <sup>2</sup>	Consumers



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Name of product/ingredient	Type	Exposure level	Effects on health	Effects	Value	Population
<i>Benzyl Alcohol</i> CAS: 100-51-6	DNEL	Oral	Long term	Systemic	5 mg/kg	Consumers
	DNEL	Oral	Short-time	Systemic	25 mg/kg	Consumers
<i>3-amminometil-3,5,5-trimetilcicloesilammina</i> CAS: 2855-13-2	DNEL	Oral	Long term	Systemic	0.526 mg/kg	Consumers
<i>Tetraethylenepentamine</i> CAS: 112-57-2	DNEL	Dermal	Long term	Systemic	0.74 mg/kg	Workers
	DNEL	Inhalation	Long term	Systemic	0.00129 mg/l	Workers
	DNEL	Dermal	Short-time	Systemic	10 mg/kg	Consumers
	DNEL	Inhalation	Long term	Systemic	0.00038 mg/kg	Consumers
	DNEL	Dermal	Long term	Systemic	0.32 mg/kg	Consumers
	DNEL	Oral	Long term	Systemic	0.53 mg/kg	Consumers

### PNEC exposure limit values

Name of product/ingredient	Type	Environmental detail	Value	Method detail
<i>Tetraethylenepentamine</i> CAS: 112-57-2	PNEC	Freshwater	0.00068 mg/l	-
	PNEC	Sea water	0.00068 mg/l	-
	PNEC	Farming land	0.683 mg/kg	-
	PNEC	Sediments in salt water	0.343 mg/kg	-
	PNEC	Sediments in freshwater	3.34 mg/kg	-
<i>3-amminometil-3,5,5-trimetilcicloesilammina</i> CAS: 2855-13-2	PNEC	Freshwater	0.06 mg/l	-
	PNEC	Sea water	0.006 mg/l	-
	PNEC	Sediments in freshwater	5.784 mg/l	-
	PNEC	Sediments in salt water	0.578 mg/kg	-
	PNEC	Farming land	1.121 mg/kg	-

### 8.2 Exposure controls

<b>Hand protection</b>	Wear suitable gloves: PVC, Neoprene, rubber. We recommend LLPDE (0.06 mm), nitrile (0.4 mm), butyl (0.5 mm).
<b>Eye protection</b>	Use airtight goggles and suitable full face protection, in case of the possibility of droplets or leaks.
<b>Respiratory protection</b>	Not necessary for normal use. Always use with suitable ventilation. All of the personal protection equipment must comply with the relative EC standards (such as EN 374 for gloves, EN 166 for glasses), keeping them suitably efficient and preserved.
<b>Skin protection</b>	Work wearing suitable clothing that guarantees total protection of the skin.

## SECTION 9. Physical and chemical properties

### 9.1 Information on the basic physical and chemical properties

Description	Values
<i>Physical state</i>	Dense paste
<i>Colour</i>	Black
<i>Odour</i>	Ammoniacal
<i>Boiling point</i>	Not available.
<i>Flash point</i>	Not flammable
<i>Density</i>	1.5 g/cm <sup>3</sup> a 25 °C
<i>Solubility in water</i>	Mixable
<i>Solubility in organic solvents</i>	Alcohols, glycol ethers, ketones
<i>pH</i>	11
<i>Viscosity</i>	ca 1000000 mPa a 25 °C
<i>Specific weight of the vapours</i>	Not available.



Description	Values
Flammability limit in the air	Not available.
Auto-ignition temperature	Not available.

### SECTION 10. Stability and reactivity

#### 10.1 Reactivity

Stable under normal conditions.

#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

Possibility of hazardous reactions.

May ignite in contact with strong oxidising agents.

#### 10.4 Conditions to be avoided

The product is stable under normal conditions of use and storage.

#### 10.5 Incompatible materials

Amines, acids and strong oxidants.

#### 10.6 Hazardous decomposition products

In case of fire, evaporated carbon oxides and vapours may be released that can be hazardous to health.

### SECTION 11. Toxicological information

#### 11.1 Information on toxicological effects

##### Channel of penetration

Swallowing	Yes
Inhalation	Yes
Contact:	Yes

##### Toxicological information on the product

There is no available toxicological data on the mixture as such.

Note the concentration of the hazardous substances in order to evaluate the toxicological effects deriving from exposure to the preparation.

##### Toxicological information on the main substances contained in the preparation

###### Acute toxicity:

Name of product/ingredient	CAS	Type	Species	Value	Exposure level
Triethylenetetramine	112-24-3	LD50	Rat	-	Oral
Tetraethylenepentamine	112-57-2	LD50	Rat	-	Oral

###### Corrosivity/Irritancy

Name of product/ingredient	CAS	Type	Species	Value	Exposure level
Triethylenetetramine	112-24-3	OECD 405 Acute Eye	Rabbit	Corrosive	Eyes
			Rabbit	Corrosive	Dermal
Tetraethylenepentamine	112-57-2	OECD 405 Acute Eye	Rabbit	Corrosive	Eyes
			Rabbit	Corrosive	Dermal

###### Sensitising power

Name of product/ingredient	CAS	Type	Species	Value	Exposure level
Triethylenetetramine	112-24-3	OECD 406 Skin Sens.	Guinea pig	Sensitising	Dermal
Tetraethylenepentamine	112-57-2	OECD 406 Skin Sens.	Guinea pig	Sensitising	Guinea pig

###### Carcinogenicity

There are no known critical effects or hazards.

###### Mutagenesis

There are no known critical effects or hazards.

###### Teratogenicity

There are no known critical effects or hazards.



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### Effects on development

There are no known critical effects or hazards.

### Effects on fertility

There are no known critical effects or hazards.

## SECTION 12. Ecological information

Use the product according to the directions set forth in the technical data sheet.  
Do not release the product into the environment.

### 12.1 Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 12.2 Persistence and degradability

Information not available.

### 12.3 Bioaccumulative potential

Information not available.

### 12.4 Mobility in the soil

Information not available.

### 12.5 Results of the PBT and vPvB evaluation

Based on available data, the product does not contain PBT or vPvB substances in percentages exceeding 0.1%.

### 12.6 Other adverse effects

Information not available.

## SECTION 13. Disposal considerations

### 13.1 Waste processing methods

Recover, if possible.

Work in accordance with the local and national provisions in force.

Dispose of this material and relative containers in a hazardous or special waste collection point.

Do not release into the environment.

Refer to the special instructions/safety data sheets 91/156/EC, 91/689/EC, 94/62/EC and subsequent amendments.

Disposal of hardened product: code CER 08 04 10.

Disposal of non-hardened product: code CER 08 04 09.

### 13.2 Contaminated packaging

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## SECTION 14. Transport information

### ADR/RID - ADN/RID IMDG IATA

-	ADR/RID - ADN/RID	IMDG	IATA
14.1 UN number	UN2735	UN2735	UN2735
14.2 UN Shipping name	Liquid amines, n.o.s	Liquid amines, n.o.s	Liquid amines, n.o.s
14.3 Hazard classes	8	8	8
n. hazard	80	80	80
14.4 Packaging groups	III	III	III
14.5 Hazardous for the environment Marine Pollutant	No	No	No
14.6 Special precautions	N.A.	N.A.	N.A.
Further information	Tunnel code: E	Emergency plan: F-A/S-F	Emergency plan: F-A/S-F
14.7 Bulk transport according to Annex II of MARPOL 73/78 and the IBC Code	N.A.	N.A.	N.A.

## SECTION 15. Regulatory information

### 15.1 Specific standards and regulations on health, safety and environment for the substance or mixture Health controls



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Lgs. D. 03/02/1997 No. 52 - Classification, packaging and labelling of hazardous substances.

Lgs. D. 14/03/2003 No. 65 - Classification, packaging and labelling of hazardous substances

Lgs. D. 09/04/2008 No. 81

M.D. Work 26/02/2004 (Occupational limits of exposure)

M.D. 03/04/2007 (Implementation of Directive No. 8/2006/EC)

EC Regulation No. 1907/2006 (REACH)

EC Regulation No. 1272/2008 (CLP)

EC Regulation No. 790/2009 (I Atp. CLP)

EC Regulation No. 453/2010 (Annex 1)

Restrictions relative to the product or the substances contained based on Annex XVII of EC Regulation No. 1907/2006 (REACH) and subsequent amendments: None.

EC Regulation No. 1907/2006 (REACH), Art. 59 (Substances in Candidate List): N.A.

Directive No. 1999/45/EC (Hazardous preparations) as amended

EC Regulation No. 1272/2008 (CLP) as amended

Directive No. 1999/45/EC (Hazardous preparations) as amended

Directive No. 67/548/EC (Substances) as amended

Lgs. D. 09/04/2008 No. 81 - Title IX "Hazardous Substances" - Paragraph I - Protection against chemical agents

Directive No. 2000/39/EC (Occupational limits of exposure) as amended

Lgs. D. 03/04/2006 No. 152 - Environmental Consolidated Act as amended

Directive No. 105/2003/EC (Seveso III): N.A.

ADR agreement - IMDG Code - ATA Regulation

VOC (2004/42/EC): N.A.

### 15.2 Chemical safety assessment

No chemical safety assessment has been conducted for the mixture and the substances contained in it.

## SECTION 16. Other information

Text of hazard (H) phrases mentioned in Sections 2-3 of the data sheet:

<b>H331</b>	Acute Inhal. Tox. 3	Toxic if inhaled.
<b>H302</b>	Acute Oral Tox. 4	Harmful if swallowed
<b>H312</b>	Acute Dermal Tox. 4	Harmful in contact with skin.
<b>H332</b>	Acute Inhal. Tox. 4	Harmful if inhaled
<b>H314</b>	Skin Corr. 1B	Causes severe skin burns and eye damage.
<b>H317</b>	Skin Sens. 1	May cause an allergic skin reaction.
<b>H318</b>	Eye Dam. 1	Causes serious eye damage.
<b>H319</b>	Eye Irrit. 2	Causes serious eye irritation.
<b>H411</b>	Aquatic Chronic 2	Toxic to aquatic organisms with long-term effects
<b>H412</b>	Aquatic Chronic 3	Harmful to aquatic life with long-term effects.
<b>EUH071</b>		Corrosive for the respiratory tract

### Abbreviations and acronyms

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- CAS NUMBER: Chemical Abstract Service NUMBER
- CLP: Classification, Labelling, Packaging (EC Regulation No. 1272/2008)
- DNEL: Derived no effect level
- EINECS: European Inventory of existing Commercial Chemical substances
- GefStoffVO: Ordinance on hazardous substances in Germany
- GHS: Global harmonised system to classify and label Chemical products
- IATA: International Air transport Association
- IATA DGR: Regulations to transport Dangerous Goods of the International Air transport Association
- ICAO: International Civil Aviation Organization
- ICAO-TI: Technical Instructions of the "International Civil Aviation Organization"
- IMDG: International maritime code for transport of Dangerous Goods
- LC50: Lethal concentration for 50% of the test population
- LD50: Lethal dose for 50% of the test population
- LTE: Long-term exposure
- PNEC: Predicted no-effect concentration
- RID: Regulations concerning the International Carriage of Dangerous Goods by Rail



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- STE: Short-time exposure
- STEL: Short-time exposure limit
- STOT: specific organ Toxicity
- TLV: occupational exposure threshold limit value
- TWA: 8-hour time-weighted average exposure limit
- OEL: EU occupational exposure limit value
- VLE: occupational exposure limit value
- WGK: water hazard class in Germany
- N.A.: Not applicable.
- N.D.: Not available

This safety data sheet was developed in compliance with Annex II - Guide to the compilation of Safety Data Sheets of Regulation (EC) No. 1907/2006 - Regulation (EC) No. 453/2010.

The information contained herein is based on our knowledge at the above date.

These refer solely to the indicated product and do not constitute a guarantee of particular quality.

The user is required to ensure the suitability and completeness of this information in relation to the specific intended use.

This sheet supersedes and replaces any previous edition.