

Date of issue: 12.07.2004 Replaces Data Sheet of : 30.07.2002

"**" alterations as compared to previous version; n.ap. = not applicable; n.av. = not available



1 Identification of Substance / Preparation and Company

1.1 Identification of Substance or Preparation

Trade Name : BonaBond R 410 Epoxy, Komponente B
Article No. : n.av.
Preparation No. : n.av.

1.2 Use of the substance / preparation:
 Foundation

1.3 Company / Supplier Identification

1.3.1 Address of the Company / Supplier:

Bona GmbH, Jahnstraße 12, D - 65549 Limburg
 Telephone : +49-6431-4008-0, Fax : +49-6431-4008-25

1.3.2 Responsible :

Chemie & Vorschrift, Kannheideweg 35, D-53123 Bonn-Duisdorf

1.4 Emergency - Telephone

Information Centre Specialising in Symptoms of Poisoning Emergency - Telephone of Company / Undertaking
 Telephone : ++49 - 761 - 19 240 Telephone : +49-6431-4008-0

2 Composition / Information on Ingredients

2.1 Chemical Characterisation:

Mixture of amines, alcohols and special ingredients.

2.2 Dangerous Ingredients:

CAS - No.	Index - No.	EEC - No.	Material	m% - range	Symbol	R - phrases
103-83-3	612-074-00-7	203-149-1	Benzylidimethylamine	1 - 5	C	R 10-20/21/22-34-52/53
25154-52-3	n.av.	246-672-0	4-Nonylphenol	< 5%	C, N	R 22-34-50/53
100-51-6	60F-E, S-E7-00-5	202-859-9	Benzylalcohol	30 - 50%	Xn	R 20/22
2855-13-2	612-067-00-9	220-666-8	Isophorondiamine	15 - 30%	C	R 21/22-34-43-52/53
1477-55-0	n.av.	216-032-5	a,a'-Diamino-1,3-xylene	5 - 15%	C	R 20/22-34-43-52/53

Remarks: Classification and labelling of a product is indicated under item 15.

3 Hazards Identification

3.1 For Humans (additional information is given under item 11) :

Harmful by inhalation, in contact with skin and if swallowed. Causes burns.
 May cause sensitization by skin contact.

3.2 For the Environment :

Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

3.3 For Materials:

May soften plastics.

4 First Aid Measures

4.1 Inhalation:

Main symptoms Dizziness, Daze, Spasm.
 Move out of dangerous area. Move to fresh air. If symptoms persist, call a physician.

4.2 Skin Contact :

Wash off with soap and water.
 If skin irritation persists, call a physician.

4.3 Eye Contact :

Rinse immediately with plenty of water, also under the eyelids.
 Obtain medical attention.

4.4 Ingestion :

Clean mouth with water and drink afterwards plenty of water.
 Consult a physician.

4.5 Note to Physician:

Risk of product entering the lungs on vomiting after ingestion. Later control for pneumonia and lung oedema.
 Treat symptomatically.

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4.6	<p>Special Equipment: n.av.</p>						
<p>5 Fire Fighting Measures</p>							
5.1	Suitable Extinguishing Media : Use dry chemical, CO ₂ , water spray or "alcohol" foam.						
5.2	Extinguishing Media to Avoid : High volume water jet						
5.3	<p>Fire and Explosion Hazards : In the event of fire nitrogen oxides (NO_x), carbon oxides may be formed.</p>						
5.4	Additional Information : Water mist may be used to cool closed containers.						
5.5	<p>Special Protective Equipment : Wear positive pressure self-contained breathing apparatus. Wear full protective clothing.</p>						
<p>6 Accidental Release Measures</p>							
6.1	<p>Personal Precautions : See No. 8.3 Personal Protective Equipment. Ensure adequate ventilation.</p>						
6.2	<p>Environmental Precautions and Methods for Cleaning up : Do not let product enter drains. Local authorities should be advised if significant spillages cannot be contained. Use mechanical handling equipment.</p>						
6.3	Further Information : None						
<p>7 Handling and Storage (For national regulations refer to item 15.2)</p>							
7.1	Handling						
7.1.1	<p>Precautions for Safe Handling : Keep container tightly closed. Use only in well-ventilated areas. Vapours are heavier than air and may spread along floors.</p>						
7.1.2	<p>Precautions in Case of Fire and Explosion : Keep away from sources of ignition - No smoking. Vapours may form explosive mixture with air.</p>						
7.2	Storage						
7.2.1	<p>Storage Instructions : Keep in a dry, cool place.</p>						
7.2.2	<p>Store away from : Do not store together with oxidising agents.</p>						
7.2.3	<p>Further Information on Storage Conditions : Keep in a well-ventilated place.</p>						
7.2.4	Storage Class : 10 (VCI - Concept)						
<p>8 Exposure Controls and Personal Protection</p>							
8.1	<p>Information on System Design : Provide personal protective equipment.</p>						
8.2	Exposure Limits:						
8.2.1	<table border="0"> <tr> <td>Material</td> <td>Limit Value :</td> </tr> <tr> <td>4-Nonylphenol</td> <td>SKINRESORPTIVE</td> </tr> <tr> <td>a,a'-Diamino-1,3-xylene</td> <td>OEL 0,1 mg/m³</td> </tr> </table>	Material	Limit Value :	4-Nonylphenol	SKINRESORPTIVE	a,a'-Diamino-1,3-xylene	OEL 0,1 mg/m ³
Material	Limit Value :						
4-Nonylphenol	SKINRESORPTIVE						
a,a'-Diamino-1,3-xylene	OEL 0,1 mg/m ³						
8.3	Personal Protective Equipment						
8.3.1	<p>General Protection and Hygiene : Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist. When using, do not eat, drink or smoke. Take off all contaminated clothing immediately.</p>						
8.3.2	Respiratory Protection : In case of insufficient ventilation wear suitable respiratory equipment. Filter A						
8.3.3	Hand Protection : Protective gloves (Nitril) (Viton, PVC; Permeationtime > 6h)						
8.3.4	Eye Protection : Safety glasses						
8.3.5	Skin Protection : Protective suit						
8.3.6	Further Information : Refer to special restrictions in wearing protective equipment						

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Telephone : +49-6431-4008-0, **Date of issue:** 12.07.2004 **Replaces Data Sheet of :** 30.07.2002**9 Physical and Chemical Properties**

9.1	Appearance		
9.1.1	Form : liquid	9.1.2 Colour : colourless - white	9.1.3 Odour : amine-like
9.2	Safety Relevant Data		
9.2.1	pH-value, undiluted :	~ 11,	pH-value, 1% aqueous solution : n.av.
9.2.2	Boiling point / Boiling - range (°C) :	> 200,	Melting point / Melting range (°C) : n.av.
9.2.3	Flash point (°C, c.c.) :	130	
9.2.4	Flammability (EEC A10/A13) :	n.av.	
9.2.5	Ignition temperature (°C) :	n.av.	
9.2.6	Autoflammability (EEC A16) :	n.av.	
9.2.7	Oxidising properties :	n.av.	
9.2.8	Explosion hazard :	No.	
9.2.9	Explosion limits (Vol.%) lower :	n.av.,	upper : n.av.
9.2.10	Vapour pressure :	n.av.	
9.2.11	Density (g/ml) :	1	
9.2.12	Solubility (in Water) :	partly miscible	Partly miscible with most organic solvents
9.2.13	Partition coefficient, n-Octanol/Water :	n.av.	
9.2.14	Viscosity :	300 mPas	
9.2.15	Solvent separation test :	n.av.	
9.2.16	Solvent content (m %) :	N.ap.	
9.3	Further Data		
9.3.1	Thermal decomposition (°C) :	n.av.	
9.3.2	Vapour density (Air = 1) :	> 1	
9.3.3	Evaporation rate :	n.av.	

10 Stability and Reactivity

10.1	Conditions to Avoid : Heat, flames and sparks. Take precautionary measures against static discharges. Depolymerization starting from 250°C.
10.2	Materials to Avoid : Strong oxidising agents. Reactions with acids.
10.3	Hazardous Decomposition Products : No decomposition if used as directed.
10.4	Further Information : None

11 Toxicological Information

11.1	Toxicological Tests :
11.1.1	Acute Health Effects :
	Inhalation, LC ₅₀ rat, (mg/l/4h) : n.av.
	Ingestion, LD ₅₀ rat, (mg/kg) : ~ 2000
	Skin - contact, LD ₅₀ rat, (mg/kg) : n.av.
	Irritation (to skin / eye) : Causes burns.
	Sensitisation : Sensitising effects
11.1.2	Subacute / Chronic Toxicity :
	Carcinogenicity : n.av.
	Mutagenicity : n.av.
	Teratogenicity : n.av.
	Narcotic Effects : n.av.
11.2	Practical Experience
11.2.1	Observations relevant for classification : None
11.2.2	Further Observations : Prolonged skin contact may cause skin irritation and/or dermatitis.
11.3	General Remarks : Classification of the preparation has been done by calculation in accordance with EEC directives.

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12 Ecological Information

- 12.1 **Ecotoxic Effects, Aquatic Toxicity :**
n.av.
- 12.2 **Behaviour in Sewage Works :**
Mobility and Accumulation Potential : n.av.
- 12.3 **Elimination (Persistence and Degradability) :**
The product is slightly soluble in water. It can be eliminated from water by abiotic processes.
- 12.4 **Other Ecological Information**
 - 12.4.1 COD-Value, mg/g : n.av.
 - 12.4.2 BOD₅-Value, mg/g : n.av.
 - 12.4.3 AOX-Remarks : n.av.
 - 12.4.4 Significant Components : No data is available on the product itself.
 - 12.4.5 Other adverse effects : n.av.

13 Disposal Considerations (For national Regulations refer to item 15.)

- 13.1 **Residues**
 - 13.1.1 Recommendation : D 10/11; R 1 Waste - Code - No. : 08 04 12
In addition comply with the regional authorities.
 - 13.1.2 Safe Handling: See item 7 and 15.
- 13.2 **Contaminated Packaging**
 - 13.2.1 Recommendation : Wash with suitable cleaner. Otherwise as described under Residues.
 - 13.2.2 Safe Handling : As described under Residues.

14 Transport Information

- 14.1 **Transportation by Road or Railway according to ADR and RID / GGVSE**
Remarks :
 Class : 8 Classification Code : C7 Packing Group : III
 Hazard-No. : 80 UN-No. : 2735
 - 14.1.1 **Instruction Concerning Shipper's Declaration and Packaging :**

Volume or Mass	Name and Description	Risklabel	Packing - Code or instruction
1, 3 l metal in card board box (max. 12 l)	UN 2735 Amines liquid, corrosive, n.o.s. (Contains Isophorondiamin)	n.ap.	--/4G
10 l, Metall	UN 2735 Amines liquid, corrosive, n.o.s. (Contains Isophorondiamin)	3	0A1/Z
- 14.2 **Classification for Transportation by Inland-Navigation according to ADNO/GGVBinSch**
Remarks : Classification has not been done.
 Class : Division : Category :
 - 14.2.1 **Description of Goods :**
 - 14.2.2 **Remarks :**
- 14.3 **Classification for Transportation by Vessels according to IMDG/GGVSee**
Remarks :
 Class : 8 UN-No. : 2735 Packing Group : III
 - 14.3.1 ***EmS-No. :** F-E, S-B
 - 14.3.2 **Marine Pollutant :** No.
 - 14.3.3 **Instruction for Declaration and Labelling :**
 (Packing sizes with possible exemptions not considered)
Proper Shipping Name : Amines liquid, corrosive, n.o.s. (Contains Isophorondiamin)
Risk Label : Corrosive
 - 14.3.4 **Remarks :** None

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14.4 Classification for Transportation by Aeroplane according to IATA-DGR/CAO-TI

Remarks :

Class : 8 UN-No. : 2735 Packing Group : III

14.4.1 Instruction for Declaration and Labelling :

(Packing sizes with possible exemptions not considered)

Proper Shipping Name : Amines liquid, corrosive, n.o.s. (Contains Isophorondiamin)

Risk Label : Corrosive

Packing Instructions, Passenger : 818 Cargo : 820

14.4.2 Remarks : None

15 Regulatory Information

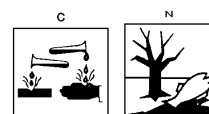
15.1 Classification according to EEC-Regulations :

Classification required by EEC : Yes.

Applicable Exemptions : No.

Hazard Identification : Corrosive & Environmentally hazardous

Hazard Symbol(s) :



Component(s) : Contains Benzylalcohol, Isophorondiamine, Xylylenediamine, Nonylphenol

R-Phrases :

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

R34 - Causes burns.

R43 - May cause sensitization by skin contact.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-Phrases :

(S 2 - Keep out of reach of children.)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 - After contact with skin, wash immediately with plenty of water and soap

S 37/39 - Wear suitable gloves and eye / face protection.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.

Additional Markings :

15.1.1 The above mentioned labelling is valid for distribution to professional users.

Labelling (formats, exemptions, additional markings) has to be done according to respective regulations.

15.2 National Regulations

VOC-Content: n.av.

16 Other Information

R - phrases from section 2

R10 - Flammable.

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

R20/22 - Harmful by inhalation and if swallowed.

R21/22 - Harmful in contact with skin and if swallowed.

R22 - Harmful if swallowed.

R34 - Causes burns.

R43 - May cause sensitization by skin contact.

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This Material Safety Data Sheet relates to 2001/58/EEC and TRGS 220.

The statements in this Material Safety Data Sheet were made to the best of our knowledge and are as accurate as possible. They are given for information only. They do not constitute a contractual guarantee of a product's properties. They must neither be altered nor transferred to other products.

Prepared by : Chemie & Vorschrift, Kannheideweg 35, D-53123 Bonn-Duisdorf, (+49-228-74 81 824

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