

ORAC FIX EXTRA - MATERIAL SAFETY DATA SHEET (2001/58/EC)

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY

Productname: ORAC FIX EXTRA

Use of the substance or the preparation: Adhesive.

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2. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical nature:

Preparation of polyurethane prepolymer.

Hazardous ingredients:

Hazardous ingredient	Cas No. EINECS No.	Conc.	Hazard symbol	Risks
<i>Methylenediphenyl- diisocyanate</i>	26447-40-5 247-714-0	>25	Xn	R20 R36/37/38 R42/43
<i>Benzyl butyl phthalate</i>	85-68-7 201-622-7	2,5-25%	N	R50/53
<i>Diethylmethyl- benzenediamine</i>	68479-98-1 270-877-4	<2,5%	Xn N	R21/22 R36 R48/22 R50/53

3. HAZARDS IDENTIFICATION

- Harmful by inhalation and ingestion.
- Irritating to eyes, skin and respiratory system.
- May cause sensitization by inhalation and skin contact.
- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

General:

In case of doubt or with persisting symptoms obtain medical attention.

Inhalation:

- Remove the victim into fresh air.
- Consult a doctor/medical service.

Eye contact:

- Rinse immediately with plenty of water.
- Consult a doctor/medical service.

Skin contact:

- Rinse immediately with plenty of water.
- Consult a doctor/medical service.

Ingestion:

- Never five water to an unconscious person.
- Consult a doctor/medical service.

5. FIRE – FIGHTING MEASURES

5.1 Suitable extinguishing media:

- Water spray
- Polyvalent Foam
- Dry chemical powder
- Carbondioxide

5.2 Unsuitable extinguishing media: none.

5.3 Special exposure hazards:

On burning: release of toxic and corrosive gases/vapours nitrous vapours, carbon monoxide and carbon dioxide.

5.4 Special protective equipment for firefighters:

- Heat/fire exposure: compressed air/oxygen apparatus.

5.5 Instructions

- Dilute toxic gases with water spray.
- Take account of toxic firefighting water.
- Use firefighting water moderately and contain it.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal protection: See 8.2

6.2 Environmental precautions:

- Use appropriate containment to avoid environmental contamination.

6.3 Clean up:

- Solid spill: shovel in (to) closing drums.
- Carefully collect the spill/leftovers.
- Clean contaminated surfaces with an excess of water.
- Wash clothing and equipment after handling.

7. HANDLING & STORAGE

7.1 Handling

- Observe very strict hygiene – avoid contact.
- Do not discharge the waste into the drain.
- Remove contaminated clothing immediately.
- Clean contaminated clothing.
- Use only in well ventilated area.

7.2 Storage

- Keep away from heat sources.
- Storage temperature: room temperature.
- Storage life: 365 days.
- Materials for packaging: suitable: plastic.

7.3 Specific uses

- Glueing mouldings in polyurethane.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure limit values:

	TLV-STEL (1)	TLV-TWA (2)	
MDI	NONE	0,005 ppm	0,051 mg/m ³

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(1) TLV: Threshold Limit Value: short time limit value

(2) TLV: Threshold Limit Value: time average mean

8.2 Exposure controls:

Use only in well ventilated area.

8.3 Personal protection:

- Eye protection: safety glasses.
- Protection of the hands: chemically resistant gloves.
- Skin protection: suitable protective clothing.
- Protection of the respiratory system: respiratory protection not required in normal conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance (at 20°C): paste
- Odour: very slight aromatic odour
- Colour: colourless
- Boilingpoint: /
- Melting point: /
- Flash point: not applicable
- Ignition temperature: > 350°C
- Explosion limits: /
- Density: 1,1 g/cm³ (at 20°C)
- Solubility in water: not soluble
- Solubility in other: organic solvents

10. STABILITY EN REACTIVITY

10.1 Conditions to avoid / reactivity:

Stable under normal conditions.

10.2 Materials to avoid:

- Keep away from heat sources.
- Exothermic reaction with amines and alcohols.
- CO₂ formation in reaction with water.

10.3 Hazardous decomposition products:

No hazardous decomposition products traced.

On burning: release of toxic and corrosive gases/vapours nitrous vapours, carbon monoxide en carbon dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity:

Benzyl butyl phthalate:

LD 50 oral rat: 2330 mg/kg

LD 50 dermal rat: 6700 mg/kg

LD 50 dermal rabbit: > 10 000 mg/kg

LC 50 inhalation rat: > 6,7 mg/ 0,25 uur

Diethylmethylbenzenediamine:

LD 50 oral rat: 598 mg/kg

LD 50 dermal rat: > 2000 mg/kg

LD 50 dermal rabbit: > 700 mg/kg

LC 50 inhalation rat: > ND mg/ 0,25 uur

11.2 Chronic toxicity

IARC-classificatie: 3 (benzylbutylftalaat)

- Routes of exposure: ingestion, inhalation, eye and skin.
- Acute effects/symptoms:

After inhalation: Irritation of the respiratory tract
Irritation of the nasal mucous membranes.

After skin contact: Tingling/irritation of the skin.

After eye contact: irritation of the eye tissue.

Chronic effects:

May cause sensitization by skin contact.

May cause sensitization by inhalation.

Not classified as toxic to reproduction (EC).

on continuous exposure / contact:

- Skin rash/inflammation
- Respiratory difficulties

Many years of experience with ORAC FIX extra have not shown any dangers for health, if properly used and under the usual industrial hygiene, nor have any indications of damages for health been presented to us.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

Diethylmethylbenzenediamine:

- LC 50 (48 u): 194 mg/l (leuciscus idus).

- EC 50 (48 u): < 1 mg/l (daphnia magna).

12.2 Mobility

- Volatile organic compounds (VOC): 0%.
- Insoluble in water.

Other adverse effects:

WGK: 2 (classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe) (VwVWS) of 17 May 1999.

Effect on the ozone layer: not dangerous for the ozone.

13. DISPOSAL CONSIDERATIONS

13.1 Provisions relating to waste:

- Waste code (Germany): 55905
- Waste material code (EU): 08 04 02 (Waste adhesives and sealants containing organic solvents or other dangerous substances).
- Waste material code (Flanders): 512.
- Hazardous waste: 91/689/EEC.

13.2 Disposal methods:

Remove to an authorised incinerator equipped with an after-burner and a flue gas scrubber.

13.3 Packaging:

Waste material code packaging: 15 01 10 (packaging containing residues of or contaminated by dangerous substances).

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14. TRANSPORT INFORMATION

90
3077

14.1 Classification of the substance in compliance with UN Recommendations:

UN-number: 3077
 Class: 9
 Sub Risks: -
 Packing: III

Proper shipping name: UN 3077, environmentally hazardous substance, solid, n.o.s. (methylenediphenyldiisocyanate).

14.2 ADR (transport by road):

Class: 9
 Packing: III
 Danger Label tanks: 9
 Danger Label Packages: 9

14.3 RID (transport by rail):

Class: 9
 Packing: III
 Danger Label tanks: 9
 Danger Label Packages: 9

14.4 ADNR (transport by inland waterways):

Class: 9
 Packing: III
 Danger Label tanks: 9
 Danger Label Packages: 9

14.5 IMDG (maritime transport):

Class: 9
 Sub risks: -
 Packing: III
 MFAG: -
 EMS: -
 Marine pollutant P

14.6 ICAO (transport by air):

Class: 9
 Sub risks: -
 Packing: III

Packing instruction passenger aircraft: 911/y911
 Packing instruction cargo aircraft: 911

14.7 Special precautions in connection with transport: none.

14.8 Limited Quantities (LQ):

When substances and their packaging meet the conditions established by ADR/RID/ADNR in chapter 3.4, only the following prescriptions shall be complied with:
 - each package shall display a diamond-shaped figure with the following instruction: 'UN 3077';
 - or in the case of different goods with different identification numbers within a single package: the letters: 'LQ'

15. REGULATORY INFORMATION

15.1 Labelling in accordance with EC-directives 67/548/EEC and 1999/45/EC:



Dangerous for the environment

Harmful

Contains: methylenediphenyl-diisocyanate

15.2 R-phrases:

R20: Harmful by inhalation.
 R36/37/38: Irritating to eyes, respiratory system and skin.
 R42/43: May cause sensitization by inhalation and skin contact.
 R51/53: Toxic to aquatic organisms; may cause longterm adverse effects in the aquatic environment.

15.3 S-phrases:

S02: Keep out of reach of children.
 S23: Do not breathe vapour.
 S24: Avoid contact with skin.
 S37: Wear suitable gloves.
 S45: In case of accident or if you feel unwell, seek medical advice (show the label where possible).
 S61: Avoid release to the environment. Refer to special instructions/safety data sheets.
 S63: In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Contains isocyanates.

See information supplied by the manufacturer.

16. OTHER INFORMATION

The information in this Material Safety Data Sheet is based on the knowledge at the issue date and in accordance with national law and EC-regulations. Without written instructions for use, the product may not be used for purposes, other than those specified under chapter 1.

The information in this sheet is meant as a description of safety measures for this product, is not meant as a warranty for quality regarding the technical specifications.

TLV: Threshold Limit Value
 OES: Occupational Exposure Limits
 MEL: Maximum Exposure Limits
 MAK: Maximale arbeitsplatzkonzentrationen
 TRK: Technische Richtkonzentrationen
 MAC: Maximale aanvaarde concentrie
 VME: Valeurs limites de moyenne d'exposition
 VLE: Valeurs limites d'exposition à court terme
 GWBB: Grenswaarde beroepsmatige blootstelling
 GWK: Grenswaarde kortstondige blootstelling

The information in this MSDS is prepared in accordance with directives 91/155/EC and 88/379/EC.