

# SAFETY DATA SHEET

Bijlard Mix-Bond 3.4

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Compilation date: 10/03/2011

Revision date: 30/11/2014

Revision No: 6

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product name: Mix-Bond 3.4

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

Use of substance / mixture: Bijlard Mix-Bond 3.4

### 1.3. Details of the supplier of the safety data sheet

Company name: Bijlard International B.V.  
Platinastraat 141  
2718 SR Zoetermeer  
The Netherlands  
Tel: 0031 (0)79 343 75 38  
Fax: 0031 (0)79 343 75 39  
info@bijlard.com

### 1.4. Emergency telephone number

0031 (0) 274 88 88 (24hr)

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification under CHIP: F: R11; Xi: R37/38; Xi: R41; Sens.: R43; -: R52/53

Classification under CLP: Flam. Liq. 2: H225; STOT SE 3: H335; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317

Most important adverse effects: Highly flammable. Irritating to respiratory system and skin. Risk of serious damage to eyes. May cause sensitisation by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 2.2. Label elements

Label elements under CLP:

Hazard statements: H225: Highly flammable liquid and vapour.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.

[cont...]

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H335: May cause respiratory irritation.

H412: Harmful to aquatic life with long lasting effects.

**Signal words:** Danger

**Hazard pictograms:** GHS02: Flame

GHS05: Corrosion

GHS07: Exclamation mark



**Precautionary statements:** P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261: Avoid breathing vapours.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing.

Rinse skin with water/shower.

P333+313: If skin irritation or rash occurs: Get medical advice/attention.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313: Get medical advice/attention.

P273: Avoid release to the environment.

## Label elements under CHIP:

**Hazard symbols:** Highly flammable.

Irritant.



**Risk phrases:** R11: Highly flammable.

R37/38: Irritating to respiratory system and skin.

R41: Risk of serious damage to eyes.

R43: May cause sensitisation by skin contact.

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

**Safety phrases:** S16: Keep away from sources of ignition - No smoking.

S24/25: Avoid contact with skin and eyes.

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

S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.

S51: Use only in well-ventilated areas.

S61: Avoid release to the environment. Refer to special instructions / safety data sheets.

[cont...]

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## 2.3. Other hazards

**Other hazards:** In use, may form flammable / explosive vapour-air mixture.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

METHYL METHACRYLATE - REACH registered number(s): 01-2119452498-28-000, 01-2119452498-28-0025, 01-2119452498-28-0028

EINECS	CAS	CHIP Classification	CLP Classification	Percent
201-297-1	80-62-6	F: R11; Xi: R37/38; Sens.: R43	Flam. Liq. 2: H225; STOT SE 3: H335; Skin Irrit. 2: H315; Skin Sens. 1: H317	50-70%

URETHANE METHACRYLATE OLIGOMER

-	-	Xi: R36/38	Skin Irrit. 2: H315; Eye Irrit. 2: H319	1-10%
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METHACRYLIC ACID EU - REACH registered number(s): 01-2119463884-26-0000

201-204-4	79-41-4	Xn: R21/22; C: R35	Acute Tox. 4: H302; Skin Corr. 1A: H314; STOT SE 3: H335; Acute Tox. 4: H312	1-10%
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3,5-DIETHYL-1,2-DIHYDRO-1-PHENYL-2-PROPYLPYRIDINE

252-091-3	34562-31-7	Xn: R21/22; Xi: R36/37/38	Acute Tox. 4: H302+312; Aquatic Chronic 4: H413; Skin Irrit. 2: H315; Eye Irrit. 2: H319	1-10%
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CUMENE HYDROPEROXIDE

201-254-7	80-15-9	O: R7; Xn: R21/22; T: R23; C: R34; Xn: R48/20/22; N: R51/53	Org. Perox. EF: H242; Acute Tox. 3: H331; Acute Tox. 4: H312; Acute Tox. 4: H302; STOT RE 2: H373; Skin Corr. 1B: H314	<1%
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2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL PHENOL

204-881-4	128-37-0	N: R50/53	Aquatic Acute 1: H400; Aquatic Chronic 1: H410	<1%
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LOW BOILING POINT HYDROGEN TREATED NAPHTHA - NAPHTHA (PETROLEUM), HYDRODESULPHURIZED HEAVY

265-185-4	64742-82-1	Xn: R65; -: R10; N: R51/53	Asp. Tox. 1: H304; Flam. Liq. 3: H226; Aquatic Chronic 2: H411	<1%
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N,N-DIMETHYL-P-TOLUIDINE

202-805-4	99-97-8	T: R23/24/25; Xn: R33; -: R52/53	Acute Tox. 3: H331; Acute Tox. 3: H311; Acute Tox. 3: H301; STOT RE 2: H373; Aquatic Chronic 3: H412	<1%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

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

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

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

**Immediate / special treatment:** Eye bathing equipment should be available on the premises.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

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

**Personal precautions:** Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

[cont...]

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## 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

## 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

## 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.  
Do not handle in a confined space. Avoid the formation or spread of mists in the air.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

**Suitable packaging:** Must only be kept in original packaging.

### 7.3. Specific end use(s)

**Specific end use(s):** PC1: Adhesives, sealants.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Workplace exposure limits:

#### Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	208 mg/m <sup>3</sup>	416 mg/m <sup>3</sup>	-	-

#### Hazardous ingredients:

#### METHYL METHACRYLATE

#### Workplace exposure limits:

#### Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	203mg/m <sup>3</sup>	416mg/m <sup>3</sup>	-	-

#### METHACRYLIC ACID EU

UK	20	40	-	-
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### DNEL/PNEC Values

**DNEL / PNEC** No data available.

[cont...]

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## 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

## Section 9: Physical and chemical properties

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

**State:** Liquid

**Colour:** Amber

**Odour:** Characteristic odour

**Viscosity:** Viscous

**Boiling point/range°C:** 100.5

**Flash point°C:** 12

**Relative density:** 0.97

### 9.2. Other information

**Other information:** flash point based on data for methyl methacrylate

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat.

### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Strong acids.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

[cont...]

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## 11.1. Information on toxicological effects

### Hazardous ingredients:

#### METHYL METHACRYLATE

DERMAL	RBT	LD50	>5000	mg/kg
INHALATION	RAT	4H LC50	29.8	mg/l
ORAL	RAT	LD50	>5000	mg/kg

#### 3,5-DIETHYL-1,2-DIHYDRO-1-PHENYL-2-PROPYLPYRIDINE

DERMAL	RBT	LD50	>1000	mg/kg
ORAL	RAT	LD50	>500	mg/kg

#### CUMENE HYDROPEROXIDE

ORL	MUS	LDLO	5	gm/kg
ORL	RAT	LD50	382	mg/kg
SCU	RAT	LD50	382	mg/kg

#### 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL PHENOL

DERMAL	RBT	LD50	>2000	mg/kg
ORAL	RAT	LD50	>2930	mg/kg

#### N,N-DIMETHYL-P-TOLUIDINE

DERMAL	RBT	LD50	>2000	mg/kg
ORAL	RAT	LD50	550	mg/kg
VAPOURS	RAT	4H LC50	1400	mg/m <sup>3</sup>

### Relevant effects for mixture:

Effect	Route	Basis
Irritation	OPT INH DRM	Hazardous: calculated
Sensitisation	DRM	Hazardous: calculated

## Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

[cont...]

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## Section 12: Ecological information

### 12.1. Toxicity

**Hazardous ingredients:**

#### METHYL METHACRYLATE

DAPHNIA MAGNA	48H EC50	69	mg/l
GREEN ALGA (Selenastrum capricornutum)	72H EC50	>110	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	>79	mg/l

#### METHACRYLIC ACID EU

GREEN ALGA (Selenastrum capricornutum)	72H IC50	0.59	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	85	mg/l

#### N,N-DIMETHYL-P-TOLUIDINE

DAPHNIA MAGNA	48H LC50	15.259	mg/l
FISH	96H LC50	32.036	mg/l
GREEN ALGA (Selenastrum capricornutum)	96H EC50	15.481	mg/l

### 12.2. Persistence and degradability

**Persistence and degradability:** Not biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** Bioaccumulation potential.

### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

**Other adverse effects:** Toxic to aquatic organisms. Toxic to soil organisms.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Disposal of packaging:** Dispose of as normal industrial waste.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

[cont...]



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## Section 14: Transport information

### 14.1. UN number

UN number: UN1133

### 14.2. UN proper shipping name

Shipping name: ADHESIVES

### 14.3. Transport hazard class(es)

Transport class: 3

### 14.4. Packing group

Packing group: II

### 14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

### 14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: D/E

Transport category: 2

## Section 15: Regulatory information

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

Specific regulations: This product is a Seveso category/named substance in Annex I of Council Directive 96/82/EC.

### 15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

Methacrylates have a perceptible or distinctive odour to which the human nose is very sensitive even when well below the TLV limits. The smell can be identified well below ranges of less than 0.5 ppm parts per million in a well-ventilated area.

#### ABBREVIATIONS

PBT - Persistent Bioaccumulative Toxic

VOC - Volatile Organic Content

STP - Sewage Treatment Plant

[cont...]

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LC50 - Lethal Concentration 50%

LD50 - Lethal Dose 50%

PNEC - Predicted No Effect Concentration

DNEL - Derived No Effect Level

OPT - Ophthalmic

RBT - Rabbit

MUS - Mouse

INH - Inhalation

DRM - Dermal

ORL - Oral

ppm - parts per million

**Phrases used in s.2 and s.3:** H225: Highly flammable liquid and vapour.

H226: Flammable liquid and vapour.

H242: Heating may cause a fire.

H301: Toxic if swallowed.

H302: Harmful if swallowed.

H302+312: Harmful if swallowed or in contact with skin.

H304: May be fatal if swallowed and enters airways.

H311: Toxic in contact with skin.

H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H331: Toxic if inhaled.

H335: May cause respiratory irritation.

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

H411: Toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

H413: May cause long lasting harmful effects to aquatic life.

R7: May cause fire.

R10: Flammable.

R11: Highly flammable.

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

R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.

[cont...]

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R23: Toxic by inhalation.

R33: Danger of cumulative effects.

R34: Causes burns.

R35: Causes severe burns.

R36/37/38: Irritating to eyes, respiratory system and skin.

R36/38: Irritating to eyes and skin.

R37/38: Irritating to respiratory system and skin.

R41: Risk of serious damage to eyes.

R43: May cause sensitisation by skin contact.

R48/20/22: Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

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

R51/53: 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.

R65: Harmful: may cause lung damage if swallowed.

**Legend to abbreviations:** PNEC = predicted no effect level

DNEL = derived no effect level

LD50 = median lethal dose

LC50 = median lethal concentration

EC50 = median effective concentration

IC50 = median inhibitory concentration

dw = dry weight

bw = body weight

cc = closed cup

oc = open cup

MUS = mouse

GPG = guinea pig

RBT = rabbit

HAM = hamster

HMN = human

MAM = mammal

PGN = pigeon

IVN = intravenous

SCU = subcutaneous

SKN = skin

DRM = dermal

OCC = ocular/corneal

PCP = physico-chemical properties

[cont...]

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**Legal disclaimer:** This company shall not be held liable for any damage resulting from handling or from contact with the above product.