

**MATERIAL: MBS 3295 1:1 Part A**

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

- 1.1 Product Name:** MBS 3295 1:1 Part A
- 1.2 Supplier:** Multibond Solutions Ltd  
Unit 10 Enterprise City  
Meadowfield Avenue  
Spennymoor  
County Durham  
DL16 6JF  
Tel: +44(0)1388 420200
- 1.3 Emergency Telephone:** Email: [sales@multibondsolutions.co.uk](mailto:sales@multibondsolutions.co.uk)  
+44 (0)1388 420200

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the Substance or Mixture:**

Classification (Regulation (EC) No. 1272/2008)  
Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2 H225  
Skin Irrit. 2 H315  
Eye Dam. 1 H318  
Skin Sens. 1 H317  
Carc. 1B H350  
STOT SE 3 H335  
Aquatic Chronic 3 H412

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008  
For explanation of abbreviations see section 16.

**2.2 Label Elements:**

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms \*\*\*

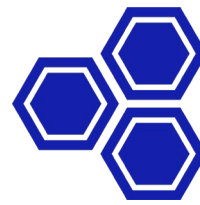


**Signal word**

Danger

**Hazard statements \*\*\***

H225  
Highly flammable liquid and vapour.  
H315  
Causes skin irritation.



H318

Causes serious eye damage.

H317

May cause an allergic skin reaction.

H350

May cause cancer.

H335

May cause respiratory irritation.

H412

Harmful to aquatic life with long lasting effects.

#### **Precautionary statements \*\*\***

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261.9

Avoid breathing vapours/spray.

P280

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

P304+P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338

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

P310

Immediately call a POISON CENTER or doctor.

#### **Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains \*\*\*

2-Hydroxyethyl methacrylate; Methyl-methacrylate; 1,4-Dihydroxybenzene; Cumene Hydroperoxide; Isopropylbenzene

#### **Supplemental information**

Further supplemental information \*\*\*

Restricted to professional users

#### **2.3 Other Hazards:**

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### **3.1 Substances:**

##### **Hazardous ingredients \*\*\***

##### **Methyl-methacrylate**

CAS No.

80-62-6

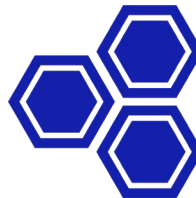
EINECS no.

201-297-1

Concentration

>= 50 %

Classification (Regulation (EC) No. 1272/2008)



Flam. Liq. 2  
H225

STOT SE 3  
H335

Skin Irrit. 2  
H315

Skin Sens. 1  
H317

Additional remarks:  
DSD  
Directive 67/548/EEC, Annex I, Note D  
CLP  
Regulation (EC) No 1272/2008, Annex VI, Note D

### **2-Hydroxyethyl methacrylate**

CAS No.  
868-77-9  
EINECS no.  
212-782-2  
Registration no.  
01-2119490169-29  
Concentration  
>= 10 < 25 %  
Classification (Regulation (EC) No. 1272/2008)  
Eye Irrit. 2  
H319

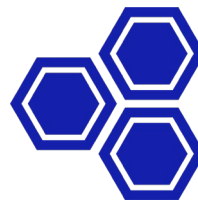
Skin Sens. 1  
H317

Skin Irrit. 2  
H315

Additional remarks:  
CLP  
Regulation (EC) No 1272/2008, Annex VI, Note D

### **Cumene Hydroperoxide**

CAS No.  
80-15-9  
EINECS no.  
201-254-7  
Concentration  
>= 3 < 5 %  
Classification (Regulation (EC) No. 1272/2008)  
STOT RE 2  
H373  
Skin Corr. 1B  
H314  
Acute Tox. 4  
H302  
Acute Tox. 4  
H312



Acute Tox. 3  
H331  
Org. Perox. E  
H242  
Aquatic Chronic 2  
H411

Concentration limits (Regulation (EC) No. 1272/2008)

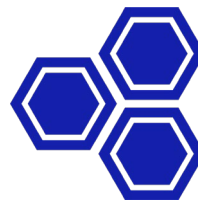
Eye Dam. 1  
H318  $\geq 3 < 10$   
STOT SE 3  
H335  $\geq 1 < 10$   
Skin Corr. 1B  
H314  $\geq 10$   
Eye Irrit. 2  
H319  $\geq 1 < 3$   
Skin Irrit. 2  
H315  $\geq 3 < 10$   
ATE  
oral  
382  
mg/kg  
ATE  
dermal  
500  
mg/kg  
cATpE  
inhalative, Dust/Mist  
0,5  
mg/l  
cATpE  
inhalative, Vapors  
3  
mg/l

### **Propylidynetrimethyl trimethacrylate**

CAS No.  
3290-92-4  
EINECS no.  
221-950-4  
Registration no.  
01-2119542176-41  
Concentration  
 $\geq 1 < 2,5$  %  
Classification (Regulation (EC) No. 1272/2008)  
Aquatic Chronic 2  
H411

### **Isopropylbenzene**

CAS No.  
98-82-8  
EINECS no.  
202-704-5  
Concentration  
 $\geq 0,1 < 1$  %  
Classification (Regulation (EC) No. 1272/2008)  
Flam. Liq. 3



H226

Asp. Tox. 1  
H304

STOT SE 3  
H335

Aquatic Chronic 2  
H411

Carc. 1B  
H350

Concentration limits (Regulation (EC) No. 1272/2008)

STOT SE 3

H335 < 25 %

Additional remarks:

DSD

Directive 67/548/EEC, Annex I, Note C, 4

CLP

Regulation (EC) No 1272/2008, Annex VI, Note C

### **1,4-Dihydroxybenzene**

CAS No.

123-31-9

EINECS no.

204-617-8

Registration no.

01-2119524016-51

Concentration

>= 0,1 < 1 %

Classification (Regulation (EC) No. 1272/2008)

Aquatic Acute 1

H400

Skin Sens. 1

H317

Eye Dam. 1

H318

Carc. 2

H351

Acute Tox. 4

H302

Muta. 2

H341

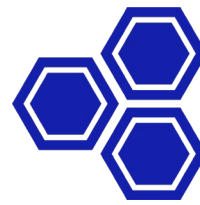
Concentration limits (Regulation (EC) No. 1272/2008)

Aquatic Acute 1

M = 10

### **3.2 Mixtures:**

N/A



#### 4.1 Description of First Aid Measures:

##### General information

Remove contaminated, soaked clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid. In any case show the physician the Safety Data Sheet.

##### After inhalation

Ensure supply of fresh air. Remove affected person from danger area. When vapours are intensively inhaled, seek medical help immediately.

##### After skin contact

Wash off immediately with soap and water. Consult a doctor if skin irritation persists.

##### After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

##### After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

##### Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

#### 4.2 Most Important Symptoms and Effects, both Acute and Delayed:

Until now no symptoms known so far.

#### 4.3 Indication of any Immediate Medical Attention and Special Treatment Needed:

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation

### SECTION 5: FIREFIGHTING MEASURES

#### 5.1 Extinguishing Media:

##### Suitable extinguishing media

Dry powder, Alcohol-resistant foam, Carbon dioxide

##### Non suitable extinguishing media

Full water jet

#### 5.2 Special Hazards Arising from the Substance or Mixture:

In case of combustion evolution of dangerous gases possible

#### 5.3 Advice for Firefighters:

##### Special protective equipment for fire-fighting

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

##### Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Observe manufacturer's / distributor's instructions.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Keep away sources of ignition. Ensure adequate ventilation. Use a breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8.

#### 6.2 Environmental Precautions:

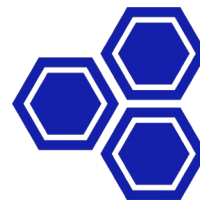
Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

#### 6.3 Methods and Material for Containment and Cleaning-Up:

Pick up rest with suitable absorbent materials. Do not pick up with the help of sawdust or other combustible substances. Clean contaminated floors and objects thoroughly, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled. Dispose of as prescribed.

#### 6.4 Reference to Other Sections:

Refer to protective measures listed in Sections 7 and 8.



## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling:

#### Advice on safe handling

Ensure adequate ventilation. Avoid formation of aerosols. Avoid impact, friction and electro-static loading; risk of ignition! Provide good ventilation of working area (local exhaust ventilation if necessary). Keep container tightly closed.

#### Advice on protection against fire and explosion

Keep away from sources of heat and ignition. No smoking. Take action to prevent static discharges. Avoid impact and friction. Keep away from combustible material.

### 7.2 Conditions for Safe Storage, Including and Incompatibilities:

#### Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Provide solvent-resistant and impermeable floor.

#### Hints on storage assembly

Do not store together with foodstuffs. Do not store with strong oxidizing agents.

#### Storage classes

Storage class according to TRGS 510 3

Flammable liquid

#### Further information on storage conditions

Keep locked up and out of the reach of children. Keep container tightly closed and in a well-ventilated place. Keep in a cool place. Protect from heat and direct sunlight.

### 7.3 Specific End Use(s):

Adhesive agent

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control Parameters:

#### Exposure limit values \*\*\*

##### Methyl-methacrylate

Value

208 mg/m<sup>3</sup>

50

ppm(V)

Short term exposure limit

416 mg/m<sup>3</sup>

100

ppm(V)

#### Other information

There are not known any further control parameters.

### 8.2 Exposure Controls:

#### General protective and hygiene measures

Do not smoke during work time. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Do not eat or drink during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

#### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. If workplace limits are exceeded, respiratory protection approved for this particular job must be worn. Short term: filter apparatus, Filter A

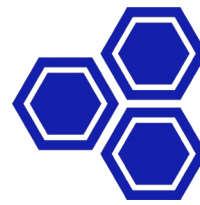
#### Hand protection

Chemical resistant gloves

Use

Short-term hand contact

Appropriate Material



nitrile  
Material thickness  
>=  
0,4 mm  
Breakthrough time  
>  
480 min

**Eye protection**

Safety glasses with side protection shield; Face shield

**Body protection**

Clothing as usual in the chemical industry. Fire-resistant antistatic protective clothing

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on Basic Physical and Chemical Properties:

**Physical state**

liquid

**Colour**

green

**Odour**

Characteristic

**Melting point**

Remarks not determined

**Boiling point or initial boiling point and boiling range**

101 °C

**Flammability**

not determined

**Upper and lower explosive limits**

Remarks not determined

**Flash point**

10 °C

**Auto-ignition temperature**

Not determined

**Decomposition temperature**

Not determined

**pH value**

Not determined

**Viscosity**

**Dynamic**

4000 to 6000 mPa.s

Temperature 25 °C

**Kinematic**

4000 to 6000 mm<sup>2</sup>/s

Temperature 23 °C

**Solubility(ies)**

Not determined

**Partition coefficient n-octanol/water (log value)**

Not determined

**Vapour pressure**

Value 47 hPa

Temperature 20 °C

**Density and/or relative density**

Value 1 g/cm<sup>3</sup>

Temperature 25 °C

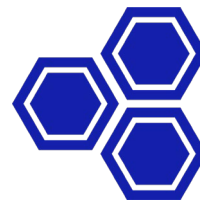
**Relative vapour density**

Not determined

### 9.2 Other Information:

**Odour threshold**





Remarks

not determined

**Evaporation rate (ether = 1) :**

Remarks

not determined

**Solubility in water**

Remarks

not determined

**Explosive properties**

evaluation

not determined

**Oxidising properties**

Remarks

not determined

**Other information**

None known

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity:

No hazardous reactions when stored and handled according to prescribed instructions.

### 10.2 Chemical Stability:

No hazardous reactions known.

### 10.3 Possibility of Hazardous Reactions:

No hazardous reactions known.

### 10.4 Conditions to Avoid:

No hazardous reactions known.

### 10.5 Incompatible Materials:

None known

### 10.6 Hazardous Decomposition Products:

such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on Toxicological Effects:

#### Acute oral toxicity

ATE 8.681,81 82mg/kg

calculated value according to GHS (e.g see UN GHS)

#### Acute oral toxicity (Components)

##### Methyl-methacrylate

Species

rat

LD50

7872 mg/kg

##### Cumene Hydroperoxide

Species

rat

LD50

382

mg/kg

Source

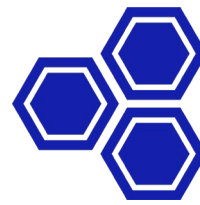
GESTIS-Stoffdatenbank

##### 2-Hydroxyethyl methacrylate

Species

rat

LD50



>

5000 mg/kg

**Acute dermal toxicity**

ATE > 10.000 mg/kg

Method

calculated value according to GHS (e.g see UN GHS)

**Acute dermal toxicity (Components)**

Methyl-methacrylate

Species

rabbit

LC50 > 5000 mg/kg

**Cumene Hydroperoxide**

Species

rat

LD50

500 mg/kg

Source

GESTIS-Stoffdatenbank

**2-Hydroxyethyl methacrylate**

Species

rabbit

LD50 > 5000 mg/kg

**Acute inhalational toxicity**

ATE 68,1818 mg/l

Administration/Form

Vapors

Method

calculated value according to GHS (e.g see UN GHS)

ATE

11,3636 mg/l

Administration/Form

Dust/Mist

Method

calculated value according to GHS (e.g see UN GHS)

Acute inhalative toxicity (Components)

**Methyl-methacrylate**

Species

rat

LC50

78 mg/m<sup>3</sup>

Duration of exposure

4h

**Cumene Hydroperoxide**

Species

rat

LC50

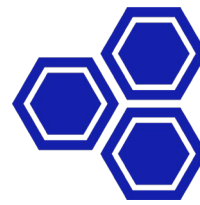
1,37 mg/l

Duration of exposure

4h

Source

GESTIS-Stoffdatenbank



**Skin corrosion/irritation**

Remarks not determined

**Serious eye damage/irritation**

Remarks not determined

**Sensitization**

Remarks not determined

**Sensitization (Components)**

**Methyl-methacrylate**

evaluation

sensitizing

**Subacute, subchronic, chronic toxicity**

Remarks

not determined

**Mutagenicity**

Remarks

not determined

**Reproductive toxicity**

Remarks

not determined

**Carcinogenicity**

Remarks

not determined

**Specific Target Organ Toxicity (STOT)**

Remarks

not determined

**11.2 Information on Other Hazards:**

n/a

**11.2.1 Endocrine Disrupting Properties**

**Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

**Experience in practice**

Inhalation may lead to irritation of the respiratory tract.

**Other information**

No toxicological data are available.

**11.2.2 Other Hazards:**

n/a

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1 Toxicity:**

**General information**

not determined

**Fish toxicity (Components)**

Methyl-methacrylate

Species

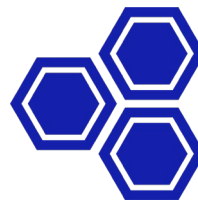
Fathead minnow (*Pimephales promelas*)

LC50

125,5 to 275,0 mg/l

Duration of exposure

96 h



## 2-Hydroxyethyl methacrylate

Species  
Oryzias latipes  
LC50 > 100 mg/l  
Duration of exposure  
96 h

## Daphnia toxicity (Components)

### Methyl-methacrylate

Species  
Daphnia magna  
EC50  
720 mg/l

### 2-Hydroxyethyl methacrylate

Species  
Daphnia magna  
EC50  
380 mg/l  
Duration of exposure  
48 h

### 2-Hydroxyethyl methacrylate

Species  
Daphnia magna  
NOEC  
24,1 mg/l  
Duration of exposure  
21 d

## Algae toxicity (Components)

### Methyl-methacrylate

Species  
Algae  
EC50  
170 mg/l  
Duration of exposure  
96 h

### 2-Hydroxyethyl methacrylate

Species  
Selenastrum capricornutum  
EC50  
345 mg/l  
Duration of exposure  
72 h

## 12.2 Persistence and Degradability:

### General information

not determined

### Biodegradability (Components)

2-Hydroxyethyl methacrylate  
Value  $\geq$  92 %  
Duration of test 14d

## 12.3 Bioaccumulative Potential:

### General information

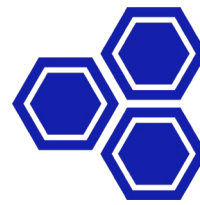
not determined

### Partition coefficient n-octanol/water (log value)

not determined

## 12.4 Mobility in Soil:

not determined



## 12.5 Results of PBT and vPvB Assessment:

### General information

not determined

### Results of PBT and vPvB assessment \*\*\*

The product contains no PBT substances

The product contains no vPvB substances.

## 12.6 Endocrine disrupting properties:

### General information

There is no data available on the product apart from the information given in this subsection.

### Endocrine disrupting properties with respect to the environment.

The product does not contain a substance that has endocrine disrupting properties with respect to nontarget organisms.

## 12.7 Other Adverse Effects:

### General information

not determined

### General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste Treatment Methods:

#### Disposal recommendations for the product

EWC waste code 08 04 09\*

waste adhesives and sealants containing organic solvents or other dangerous substances

Dispose of waste according to applicable legislation.

#### Disposal recommendations for packaging

EWC waste code 5 01 10\*

Packaging containing residues of or contaminated by dangerous substances.

Packaging that cannot be cleaned should be disposed of in agreement with the regional waste disposal company.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 UN Number:

UN1133

### 14.2 UN Proper Shipping Name:

Land transport ADR/RID:

ADHESIVES (Methylmethacrylate)

Marine transport

IMDG/GGVSee:

ADHESIVES (Methylmethacrylate)

Air transport

ICAO/IATA:

ADHESIVES

Tunnel restriction doe: E

### 14.3 Transport Hazard Class(es):

3

### 14.4 Packing Group:

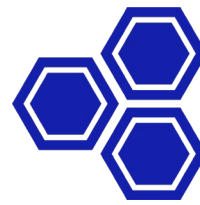
III

The product is viscous, packing group III in containers with not more than 450 ltrs.

Limited quantity: 5L

Transport category: 3

### 14.5 Environmental Hazards:



N/A

**14.6 Special Precautions for User:**

The relevant transport regulations have to be considered.

**14.7 Maritime transport in bulk according to IMO instruments:**

Not relevant

## **SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, Health & Environmental Regulations/Legislation Specific for the Substance or Mixture:**

**VOC**

**VOC (EU)**

0 %

0 g/l

**Other information**

All components are contained in the TSCA inventory or exempted.

All components are contained in the IECSC inventory.

All components are contained in the ECL inventory.

All components are contained in the DSL inventory.

**15.2 Chemical Safety Assessment:**

For this preparation a chemical safety assessment has not been carried out.

## **SECTION 16: OTHER INFORMATION**

**Hazard statements listed in Chapter 3**

H225

Highly flammable liquid and vapour.

H226

Flammable liquid and vapour.

H242

Heating may cause a fire.

H302

Harmful if swallowed.

H304

May be fatal if swallowed and enters airways.

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

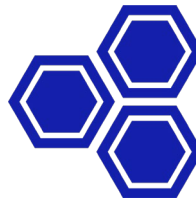
May cause respiratory irritation.

H341

Suspected of causing genetic defects.

H350

May cause cancer.



H351  
Suspected of causing cancer.  
H373  
May cause damage to organs through prolonged or repeated exposure.  
H400  
Very toxic to aquatic life.  
H411  
Toxic to aquatic life with long lasting effects.  
CLP categories listed in Chapter 3  
Acute Tox. 3  
Acute toxicity, Category 3  
Acute Tox. 4  
Acute toxicity, Category 4  
Aquatic Acute 1  
Hazardous to the aquatic environment, acute, Category 1  
Aquatic Chronic 2  
Hazardous to the aquatic environment, chronic, Category 2  
Asp. Tox. 1  
Aspiration hazard, Category 1  
Carc. 1B  
Carcinogenicity, Category 1B  
Carc. 2  
Carcinogenicity, Category 2  
Eye Dam. 1  
Serious eye damage, Category 1  
Eye Irrit. 2  
Eye irritation, Category 2  
Flam. Liq. 2  
Flammable liquid, Category 2  
Flam. Liq. 3  
Flammable liquid, Category 3  
Muta. 2  
Germ cell mutagenicity, Category 2  
Org. Perox. E  
Organic peroxide, Type E  
Skin Corr. 1B  
Skin corrosion, Category 1B  
Skin Irrit. 2  
Skin irritation, Category 2  
Skin Sens. 1  
Skin sensitization, Category 1  
STOT RE 2  
Specific target organ toxicity - repeated exposure, Category 2  
STOT SE 3  
Specific target organ toxicity - single exposure, Category 3

## DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their particular use.

**MATERIAL: MBS 3295 1:1 Part B**

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

- 1.1 Product Name:** MBS 3295 1:1 Part B
- 1.1 Supplier:** Multibond Solutions Ltd  
Unit 10 Enterprise City  
Meadowfield Avenue  
Spennymoor  
County Durham  
DL16 6JF  
Tel: +44(0)1388 420200
- 1.2 Emergency Telephone:** Email: [sales@multibondsolutions.co.uk](mailto:sales@multibondsolutions.co.uk)  
+44 (0)1388 420200

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the Substance or Mixture:**

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2

H225

Skin Corr. 1A

H314

Eye Dam. 1

H318

Skin Sens. 1

H317

STOT SE 3

H335

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

**2.2 Label Elements:**

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

**Hazard pictograms**



**Signal word**

Danger

**Hazard statements**

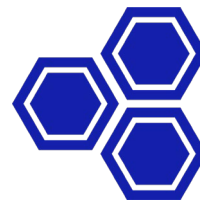
H225

Highly flammable liquid and vapour.

H314

Causes severe skin burns and eye damage.





H317

May cause an allergic skin reaction.

H335

May cause respiratory irritation.

### **Precautionary statements**

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261.9

Avoid breathing vapours/spray.

P280

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

P304+P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338

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

P310

Immediately call a POISON CENTER or doctor.

### **Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

Contains:

Methacrylic acid; 1-Benzoyl-2-Ethylimidazol; 2-Hydroxyethyl methacrylate;

Methyl-methacrylate

### **2.3 Other Hazards:**

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

## **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

### **3.1 Substances:**

#### **Hazardous ingredients**

Methyl-methacrylate

CAS No.

80-62-6

EINECS no.

201-297-1

Concentration

>= 50 %

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2

H225

STOT SE 3

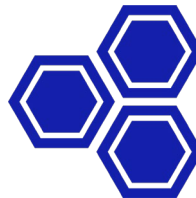
H335

Skin Irrit. 2

H315

Skin Sens. 1

H317



Additional remarks:

DSD

Directive 67/548/EEC, Annex I, Note D

CLP

Regulation (EC) No 1272/2008, Annex VI, Note D

### **2-Hydroxyethyl methacrylate**

CAS No.

868-77-9

EINECS no.

212-782-2

Registration no.

01-2119490169-29

Concentration

>= 25 < 50 %

Classification (Regulation (EC) No. 1272/2008)

Eye Irrit. 2

H319

Skin Sens. 1

H317

Skin Irrit. 2

H315

Additional remarks:

CLP

Regulation (EC) No 1272/2008, Annex VI, Note D

### **Methacrylic acid**

CAS No.

79-41-4

EINECS no.

201-204-4

Registration no.

01-2119463884-26

Concentration

>= 10 < 19 %

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 3

H311

Acute Tox. 4

H302

Skin Corr. 1A

H314

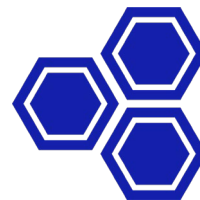
Acute Tox. 4

H332

STOT SE 3

H335

Concentration limits (Regulation (EC) No. 1272/2008)



STOT SE 3  
H335 >= 1  
ATE  
oral  
1.320 mg/kg  
ATE  
dermal  
500  
mg/kg  
cATpE  
inhalative, Dust/Mist  
1,5  
mg/l  
cATpE  
inhalative, Vapors  
11  
mg/l  
Additional remarks:  
DSD  
Directive 67/548/EEC, Annex I, Note D  
CLP  
Regulation (EC) No 1272/2008, Annex VI, Note D

#### **Monobenzoyl Thiourea**

CAS No.  
614-23-3  
Concentration  
>= 1 < 9,6 %  
Classification (Regulation (EC) No. 1272/2008)  
Acute Tox. 4  
H302

cATpE  
oral  
500  
mg/kg

#### **1-Benzoyl-2-Ethylimidazol**

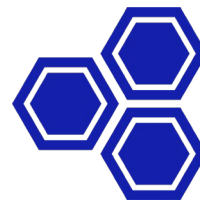
CAS No.  
137590-32-0  
EINECS no.  
415-820-8  
Concentration  
>= 1 < 3 %  
Classification (Regulation (EC) No. 1272/2008)  
Eye Dam. 1  
H318  
Skin Sens. 1  
H317  
Aquatic Chronic 3  
H412

### **3.2 Mixtures:**

N/A

## **SECTION 4: FIRST AID MEASURES**

### **4.1 Description of First Aid Measures:**



### General information

Remove contaminated, soaked clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid. In any case show the physician the Safety Data Sheet.

#### After inhalation

Ensure supply of fresh air. When vapours are intensively inhaled, seek medical help immediately.

#### After skin contact

Wash off immediately with soap and water. Consult a doctor if skin irritation persists.

#### After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Summon a doctor immediately.

#### After ingestion

If swallowed, seek medical advice immediately and show this container or label. Rinse mouth thoroughly with water.

Let plenty of water be drunk in small gulps. Do not induce vomiting.

#### Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

### 4.2 Most Important Symptoms and Effects, both Acute and Delayed:

Until now no symptoms known so far.

### 4.3 Indication of any Immediate Medical Attention and Special Treatment Needed:

#### Hints for the physician / hazards

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing Media:

#### Suitable extinguishing media

Dry powder, Carbon dioxide, Foam

#### Non suitable extinguishing media

Full water jet

### 5.2 Special Hazards Arising from the Substance or Mixture:

In case of combustion evolution of dangerous gases possible

### 5.3 Advice for Firefighters:

#### Special protective equipment for fire-fighting

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

#### Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Keep away sources of ignition. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8.

### 6.2 Environmental Precautions:

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. In case the product spills into sewage waters, immediately inform the authorities.

### 6.3 Methods and Material for Containment and Cleaning-Up:

Pick up with absorbent material. Do not pick up with the help of saw-dust or other combustible substances. Containers in which spilt substance has been collected must be adequately labelled. Dispose of as prescribed.

### 6.4 Reference to Other Sections:

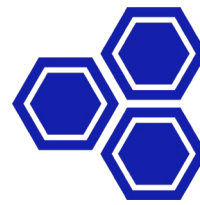
Refer to protective measures listed in Sections 7 and 8.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling:

#### Advice on safe handling

Avoid formation of aerosols. Provide good ventilation of working area (local exhaust ventilation if necessary). Observe the usual precautions for handling chemicals. Avoid impact, friction and electrostatic



loading; risk of ignition!  
Keep container tightly closed.

#### **Advice on protection against fire and explosion**

Keep away from sources of heat and ignition. No smoking. Take action to prevent static discharges. Avoid impact and friction. Keep away from combustible material.

#### **7.2 Conditions for Safe Storage, Including and Incompatibilities:**

##### **Requirements for storage rooms and vessels**

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Provide solvent-resistant and impermeable floor.

##### **Hints on storage assembly**

Do not store with strong oxidizing agents.

##### **Storage classes**

Storage class according to TRGS 510 3

Flammable liquid

##### **Further information on storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight. Observe TDS precautions.

#### **7.3 Specific End Use(s):**

Adhesive agent

### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **8.1 Control Parameters:**

##### **Exposure limit values**

##### **Methyl-methacrylate**

Value

208 mg/m<sup>3</sup>

50 ppm(V)

Short term exposure limit

416 mg/m<sup>3</sup>

100 ppm(V)

##### **Methacrylic acid**

Value

72 mg/m<sup>3</sup>

20 ppm(V)

Short term exposure limit

143 mg/m<sup>3</sup>

40

ppm(V)

##### **Other information**

There are not known any further control parameters.

#### **8.2 Exposure Controls:**

##### **General protective and hygiene measures**

Do not smoke during work time. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Do not eat or drink during work time. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

##### **Respiratory protection**

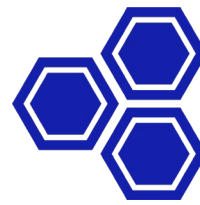
Use NIOSH approved respirator if there is potential to exceed exposure limits. If this material is handled at elevated temperatures, or under mist-forming conditions without engineering controls, a NIOSH approved respirator must be used.

##### **Hand protection**

Chemical resistant gloves

Use

Short-term hand contact



Appropriate Material

nitrile

Material thickness

>=

0,4 mm

Breakthrough time

>

480 min

**Eye protection**

Safety glasses with side protection shield

**Body protection**

Clothing as usual in the chemical industry.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on Basic Physical and Chemical Properties:

**Physical state**

liquid

**Colour**

pink

**Odour**

characteristic

**Melting point**

not determined

**Boiling point or initial boiling point and boiling range**

Value

101 °C

**Flammability**

not determined

**Upper and lower explosive limits**

Remarks not determined

**Flash point**

Value 10 °C

**Auto-ignition temperature**

Remarks not determined

**Decomposition temperature**

Remarks not determined

**pH value**

Remarks not determined

**Viscosity**

Dynamic Value 4000 to 6000 mPa.s

Temperature 25 °C

**kinematic**

Value 4000 to 6000 mm<sup>2</sup>/s

Temperature 23 °C

**Solubility(ies)**

Remarks not determined

**Partition coefficient n-octanol/water (log value)**

Remarks not determined

**Vapour pressure**

Value 47 hPa

Temperature 20°C

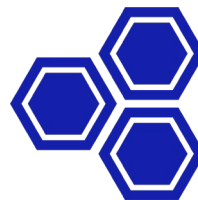
**Density and/or relative density**

Value 1 g/cm<sup>3</sup>

Temperature 25 °C

**Relative vapour density**

Remarks not determined



## 9.2 Other Information:

### Odour threshold

Remarks not determined

### Evaporation rate (ether = 1) :

Remarks not determined

### Solubility in water

Remarks not determined

### Explosive properties

evaluation not determined

### Oxidising properties

Remarks not determined

### Other information

None known

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity:

No hazardous reactions when stored and handled according to prescribed instructions

### 10.2 Chemical Stability:

No hazardous reactions known.

### 10.3 Possibility of Hazardous Reactions:

No hazardous reactions known.

### 10.4 Conditions to Avoid:

No hazardous reactions known.

### 10.5 Incompatible Materials:

None known

### 10.6 Hazardous Decomposition Products:

such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on Toxicological Effects:

Acute oral toxicity

ATE

5.689,65

52mg/kg

Method

calculated value according to GHS (e.g see UN GHS)

#### Acute oral toxicity (Components)

Methacrylic acid

Species

rat

LD50

1320 mg/kg

#### Methyl-methacrylate

Species

rat

LD50

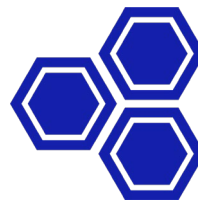
7872 mg/kg

#### 2-Hydroxyethyl methacrylate

Species

rat

LD50



>  
5000 mg/kg

### **Acute dermal toxicity**

ATE  
5.000 mg/kg  
Method  
calculated value according to GHS (e.g see UN GHS)

### **Acute dermal toxicity (Components)**

Methacrylic acid  
Species  
rabbit  
LD50  
500 to 1000 mg/kg

### **Methyl-methacrylate**

Species  
rabbit  
LC50  
>  
5000 mg/kg

### **2-Hydroxyethyl methacrylate**

Species  
rabbit  
LD50  
>  
5000 mg/kg

### **Acute inhalational toxicity**

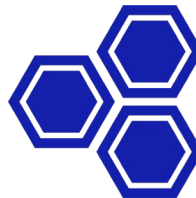
ATE  
15 mg/l  
Administration/Form  
Dust/Mist  
Method  
calculated value according to GHS (e.g see UN GHS)

ATE  
>  
100 mg/l  
Administration/Form  
Vapors  
Method  
calculated value according to GHS (e.g see UN GHS)

### **Acute inhalative toxicity (Components)**

Methacrylic acid  
Species  
rat  
LC50





7,1 mg/l  
Duration of exposure  
4 h

### **Methyl-methacrylate**

Species  
rat  
LC50  
78 mg/m<sup>3</sup>  
Duration of exposure  
4h

### **Skin corrosion/irritation**

Remarks  
not determined

### **Serious eye damage/irritation**

Remarks  
not determined

### **Sensitization**

Remarks  
not determined

### **Sensitization (Components)**

#### **Methacrylic acid**

Route of exposure  
dermal  
Species  
guinea pig  
evaluation  
non-sensitizing

#### **Methyl-methacrylate**

evaluation  
sensitizing

### **Subacute, subchronic, chronic toxicity**

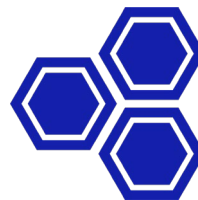
Remarks  
not determined

### **Mutagenicity**

Remarks  
not determined

### **Reproductive toxicity**

Remarks  
not determined



### **Carcinogenicity**

Remarks  
not determined

### **Specific Target Organ Toxicity (STOT)**

Remarks  
not determined

### **11.2 Information on Other Hazards:**

#### **Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

#### **Experience in practice**

Inhalation may lead to irritation of the respiratory tract.

### **11.2.1 Endocrine Disrupting Properties**

N/a

### **11.2.2 Other Hazards:**

No toxicological data are available.

## **SECTION 12: ECOLOGICAL INFORMATION**

### **12.1 Toxicity:**

#### **General information**

not determined

#### **Fish toxicity (Components)**

##### **Methacrylic acid**

Species  
rainbow trout (*Oncorhynchus mykiss*)  
LC50  
85 mg/l  
Duration of exposure  
96h

##### **Methyl-methacrylate**

Species  
Fathead minnow (*Pimephales promelas*)  
LC50  
125,5 to 275,0 mg/l  
Duration of exposure  
96 h

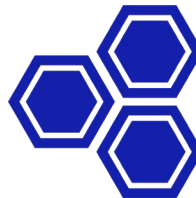
##### **2-Hydroxyethyl methacrylate**

Species  
*Oryzias latipes*  
LC50  
> 100 mg/l  
Duration of exposure  
96 h

#### **Daphnia toxicity (Components)**

##### **Methacrylic acid**

Species  
*Daphnia magna*  
EC50  
> 130 mg/l  
Duration of exposure



48 h

### **Methacrylic acid**

Species  
Daphnia magna  
NOEC  
53 mg/l

### **Methyl-methacrylate**

Species  
Daphnia magna  
EC50  
720 mg/l

### **2-Hydroxyethyl methacrylate**

Species  
Daphnia magna  
EC50  
380 mg/l  
Duration of exposure  
48h

### **2-Hydroxyethyl methacrylate**

Species  
Daphnia magna  
NOEC  
24,1 mg/l  
Duration of exposure  
21 d

### **Algae toxicity (Components)**

#### **Methacrylic acid**

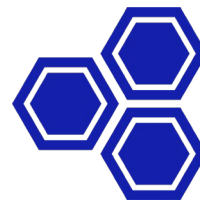
Species  
Selenastrum capricornutum  
EC50  
45 mg/l  
Duration of exposure  
72 h

#### **Methacrylic acid**

Species  
Selenastrum capricornutum  
NOEC  
8,2 mg/l  
Duration of exposure  
72 h

#### **Methyl-methacrylate**

Species  
Algae  
EC50  
170 mg/l  
Duration of exposure  
96 h



## 2-Hydroxyethyl methacrylate

Species

Selenastrum capricornutum

EC50

345 mg/l

Duration of exposure

72 h

### 12.2 Persistence and Degradability:

#### General information

not determined

#### Biodegradability (Components)

2-Hydroxyethyl methacrylate

Value >= 92 %

Duration of test

14d

### 12.3 Bioaccumulative Potential:

#### General information

not determined

#### Partition coefficient n-octanol/water (log value)

Remarks not determined

### 12.4 Mobility in Soil:

#### General information

not determined

### 12.5 Results of PBT and vPvB Assessment:

#### General information

not determined

#### Results of PBT and vPvB assessment

The product contains no PBT substances

The product contains no vPvB substances.

### 12.6 Endocrine disrupting properties:

#### General information

There is no data available on the product apart from the information given in this subsection.

#### Endocrine disrupting properties with respect to the environment

The product does not contain a substance that has endocrine disrupting properties with respect to nontarget organisms.

### 12.7 Other Adverse Effects:

#### General information

not determined

#### General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste Treatment Methods:

#### Disposal recommendations for the product

EWC waste code 8 04 09\* waste adhesives and sealants containing organic solvents or other dangerous substances. Dispose of waste according to applicable legislation.

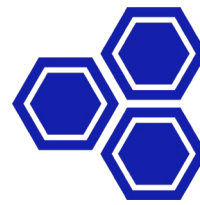
#### Disposal recommendations for packaging

EWC waste code 15 01 10\* packaging containing residues of or contaminated by dangerous substances. Packaging that cannot be cleaned should be disposed of in agreement with the regional waste disposal company.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 UN Number:

UN1133



- Land transport ADR/RID Tunnel restriction code: E
- 14.2 UN Proper Shipping Name:**  
Land transport ADR/RID:  
ADHESIVES (Methylmethacrylate, Methacrylic acid)
- Marine transport IMDG/GGVSee:  
ADHESIVES (Methylmethacrylate, Methacrylic acid)
- Air transport ICAO/IATA:  
ADHESIVES
- 14.3 Transport Hazard Class(es):**  
3
- 14.4 Packing Group:**  
III  
The product is viscous; packinggroup III in containers with notmore than 450 ltrs.
- Limited Quantity: 5L
- Transport category: 3
- 14.5 Environmental Hazards:**  
N/A
- 14.6 Special Precautions for User:**  
The relevant transport regulations have to be considered.
- 14.7 Maritime transport in bulk according to IMO instruments:**  
Not relevant

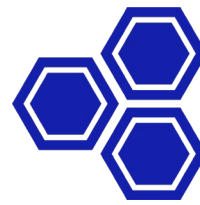
## **SECTION 15: REGULATORY INFORMATION**

- 15.1 Safety, Health & Environmental Regulations/Legislation Specific for the Substance or Mixture:**  
**VOC**  
VOC (EU)  
0 %  
0 g/l
- Other information**  
All components are contained in the TSCA inventory or exempted.  
All components are contained in the IECSC inventory.  
All components are contained in the ECL inventory.
- 15.2 Chemical Safety Assessment:**  
For this preparation a chemical safety assessment has not been carried out.

## **SECTION 16: OTHER INFORMATION**

### **Hazard statements listed in Chapter 3**

H225  
Highly flammable liquid and vapour.  
H302  
Harmful if swallowed.  
H311  
Toxic 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.

H332

Harmful if inhaled.

H335

May cause respiratory irritation.

H412

Harmful to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Acute Tox. 3

Acute toxicity, Category 3

Acute Tox. 4

Acute toxicity, Category 4

Aquatic Chronic 3

Hazardous to the aquatic environment, chronic, Category 3

Eye Dam. 1

Serious eye damage, Category 1

Eye Irrit. 2

Eye irritation, Category 2

Flam. Liq. 2

Flammable liquid, Category 2

Skin Corr. 1A

Skin corrosion, Category 1A

Skin Irrit. 2

Skin irritation, Category 2

Skin Sens. 1

Skin sensitization, Category 1

STOT SE 3

Specific target organ toxicity - single exposure, Category 3

## **DISCLAIMER**

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their particular use.