

**Three Bond 3164**

Material number TB3164

Page: 1 of 9

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name: Three Bond 3164

**1.2 Relevant identified uses of the substance or mixture and uses advised against**General use: UV ray curable resin.  
For industrial purposes only**1.3 Details of the supplier of the safety data sheet**Company name: Three Bond Europe SAS (UK Branch)  
Street/POB-No.: 5 Newmarket Court, Kingston  
Postal Code, city: Milton Keynes MK10 0AG  
WWW: www.threebond.co.uk  
E-mail: info@threebond.co.uk  
Telephone: 0044-(0)1908-285000  
Telefax: 0044-(0)1908 285001

Dept. responsible for information:

Telephone: 0044-(0)1908-285000, Email: info@threebond.co.uk

**1.4 Emergency telephone number**ORFILA (France) - Tel : +33 (0)1 45 42 59 59 (24h)  
Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24)  
EU Tel : 112**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to EC regulation 1272/2008 (CLP)**Acute Tox. 3; H331 Toxic if inhaled.  
Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.**2.2 Label elements****Labelling (CLP)**

Signal word:

**Danger**

Hazard statements:

H331  
H412Toxic if inhaled.  
Harmful to aquatic life with long lasting effects.

Precautionary statements:

P261  
P271  
P273Avoid breathing vapours/spray.  
Use only outdoors or in a well-ventilated area.  
Avoid release to the environment.P304+P340  
P311IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER/doctor.

P403+P233

Store in a well-ventilated place. Keep container tightly closed.

**Special labelling**

EUH204

Contains isocyanates. May produce an allergic reaction.

**Three Bond 3164**

Material number TB3164

Page:

2 of 9

**2.3 Other hazards**

With exposure to moisture, product will release methanol.

Information about methanol: Highly flammable liquid and vapour. Toxic if swallowed, in contact with skin or if inhaled.

Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment:

No data available

**SECTION 3: Composition / information on ingredients**

3.1 Substances: not applicable

**3.2 Mixtures**

Chemical characterisation: Mixture of the substances listed below with non-hazardous additions:

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 204-337-6 CAS 119-61-9	Benzophenone	< 2.5 %	Skin Irrit. 2; H315. Eye Irrit. 2; H319. STOT SE 3; H335. Aquatic Acute 1; H400. Aquatic Chronic 1; H410.
EC No. 250-284-7 CAS 30674-80-7	2- Isocyanatoethyl methacrylate	< 1 %	Acute Tox. 4; H302. Acute Tox. 1; H330. Skin Irrit. 2; H315. Eye Dam. 1; H318. Resp. Sens. 1; H334. Skin Sens. 1; H317.

Full text of H- and EUH-statements: see section 16.

Additional information:

With exposure to moisture, product will release methanol.

The maximum workplace exposure limits are, where necessary, listed in section 8.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

General information: If medical advice is needed, have product container or label at hand. First aider: Pay attention to self-protection!

In case of inhalation: Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Seek medical attention.

Following skin contact: After contact with skin, wash immediately with soap and plenty of water. Take off contaminated clothing and wash it before reuse. Consult physician immediately.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Rinse mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult physician immediately.

**4.2 Most important symptoms and effects, both acute and delayed**

Toxic if inhaled. May cause allergic reactions in already sensitized persons.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:

Extinguishing powder, foam, Water spray jet, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

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

Combustible. With exposure to moisture, product will release methanol.

In case of fire may be liberated: isocyanates, silicon compounds, nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Hazchem-Code: 2X

Use fine water spray to cool endangered containers.

Do not allow fire water to penetrate into surface or ground water.

## SECTION 6: Accidental release measures

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

Provide adequate ventilation. Do not breathe vapour/aerosol.

Keep unprotected people away. Wear appropriate protective equipment.

Avoid contact with the substance.

### 6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) and place in closed containers for disposal. Final cleaning.

Additional information:

Special danger of slipping by leaking/spilling product.

### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling:

Provide adequate ventilation, and local exhaust as needed.

Execute works under fume hood. Do not breathe vapour/aerosol.

Wear appropriate protective equipment. Wash hands before breaks and after work.

When using do not eat, drink or smoke. Take off contaminated clothing and wash it before reuse.

Work place should be equipped with a shower and an eye rinsing apparatus.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharges.

## 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

- Keep container tightly closed in a cool, well-ventilated place.
- Keep container dry. keep away from UV-radiation/sunlight
- Keep away from hot surfaces. Protect from humidity and water.

Hints on joint storage: Do not store together with food.

## 7.3 Specific end use(s)

No information available.

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
67-56-1	Methanol	Europe: IOELV: TWA	260 mg/m <sup>3</sup> ; 200 ppm (may be absorbed through the skin)
		Great Britain: WEL-STEL	333 mg/m <sup>3</sup> ; 250 ppm (may be absorbed through the skin)
		Great Britain: WEL-TWA	266 mg/m <sup>3</sup> ; 200 ppm (may be absorbed through the skin)
		Ireland: 8 hours	260 mg/m <sup>3</sup> ; 200 ppm (may be absorbed through the skin)

## 8.2 Exposure controls

- Provide good ventilation and/or an exhaust system in the work area.
- Execute works under fume hood.

## Personal protection equipment

### Occupational exposure controls

Respiratory protection: Use a breathing protection against vapours/aerosol.

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection: Protective gloves according to EN 374.

Glove material:

Nitrile rubber or butyl caoutchouc (butyl rubber) - Layer thickness  $\geq$  0,5 mm.

Breakthrough time: &gt; 480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:

Do not breathe vapour/aerosol. Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and after work.

Work place should be equipped with a shower and an eye rinsing apparatus.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Colour: white
Odour:	characteristic
Odour threshold:	No data available
pH value:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	158 °C
Evaporation rate:	No data available
Flammability:	combustible.
Explosion limits:	LEL (Lower Explosion Limit): 6.00 Vol-% UEL (Upper Explosive Limit): 35.60 Vol-%
Vapour pressure:	No data available
Vapour density:	No data available
Density:	1.00 g/mL
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	> 200 °C
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Explosive properties:	No data available
Oxidizing characteristics:	No data available

### 9.2 Other information

Additional information: No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

With exposure to moisture, product will release methanol.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known.

### 10.4 Conditions to avoid

UV-radiation/sunlight  
Protect from humidity and water.

### 10.5 Incompatible materials

Water

## 10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Acute Tox. 3; H331 = Toxic if inhaled.  
ATEmix calculated (Vapours): 2 mg/L < ATEmix =< 10 mg/L

Skin corrosion/irritation: Lack of data.

Serious eye damage/irritation: Lack of data.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Based on available data, the classification criteria are not met.

Contains isocyanates. May produce an allergic reaction.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

Other information: Information about 2-Isocyanatoethyl methacrylate:  
LC50 Rat, inhalative:  
male 0.0281 mg/L/6h, 0.1533 mg/L/h  
female 0.0334 mg/L/6h, 0.228 mg/L/h

## SECTION 12: Ecological information

### 12.1 Toxicity

Aquatic toxicity: Harmful to aquatic life with long lasting effects.

Information about Benzophenone:

Daphnia toxicity:  
EC50 Daphnia magna: 1.1 mg/l /21 d (OECD 211)

Fish toxicity:  
LC50 Pimephales promelas: 15.3 mg/l /96 h (OECD 203)

Algae toxicity:  
EC50 Pseudokirchnerella subcapitata: 3.5 mg/l /72 h (OECD 201)

Bacterial toxicity:  
EC50 activated sludge: 787 mg/l (OECD 209 )

### 12.2 Persistence and degradability

Further details: No data available

**12.3 Bioaccumulative potential**Partition coefficient: n-octanol/water:  
No data available**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

No data available

**12.6 Other adverse effects**

General information: Do not allow to enter into ground-water, surface water or drains.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**Waste key number: 08 04 09\* = Waste adhesives and sealants containing organic solvents or other dangerous substances  
MFSU = manufacture, formulation, supply and use  
\* = Evidence for disposal must be provided.Recommendation: Dispose of waste according to applicable legislation.  
Do not dispose of with household waste.  
Do not empty into drains.**Contaminated packaging**Waste key number: 15 01 02 = Plastic packaging or 150104 = Metallic packaging  
Recommendation: Dispose of waste according to applicable legislation.  
Handle contaminated packages in the same way as the substance itself.**SECTION 14: Transport information****14.1 UN number**ADR/RID, IMDG, IATA-DGR:  
UN 2810**14.2 UN proper shipping name**ADR/RID, IMDG, IATA-DGR:  
UN 2810, TOXIC LIQUID, ORGANIC, N.O.S. (2-Isocyanatoethyl methacrylate)**14.3 Transport hazard class(es)**ADR/RID: Class 6.1, Code: T1  
IMDG: Class 6.1, Subrisk -  
IATA-DGR: Class 6.1**14.4 Packing group**ADR/RID, IMDG, IATA-DGR:  
III**14.5 Environmental hazards**

Marine pollutant: no

## 14.6 Special precautions for user

### Land transport (ADR/RID)

Warning board:	ADR/RID: Kemmler-number 60, UN number UN 2810
Hazard label:	6.1
Special provisions:	274 614
Limited quantities:	5 L
EQ:	E1
Contaminated packaging - Instructions:	P001 IBC03 LP01 R001
Special provisions for packing together:	MP19
Portable tanks - Instructions:	T7
Portable tanks - Special provisions:	TP1 TP28
Tank coding:	L4BH
Tunnel restriction code:	E

### Sea transport (IMDG)

EmS:	F-A, S-A
Special provisions:	223, 274
Limited quantities:	5 L
Excepted quantities:	E1
Contaminated packaging - Instructions:	P001, LP01
Contaminated packaging - Provisions:	-
IBC - Instructions:	IBC03
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T7
Tank instructions - Provisions:	TP1, TP28
Stowage and handling:	Category A. SW2
Properties and observations:	Toxic if swallowed, by skin contact or by inhalation.
Segregation group:	none

### Air transport (IATA)

Hazard label:	Toxic
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y642 - Max. Net Qty/Pkg. 2 L
Passenger and Cargo Aircraft:	Pack.Instr. 655 - Max. Net Qty/Pkg. 60 L
Cargo Aircraft only:	Pack.Instr. 663 - Max. Net Qty/Pkg. 220 L
Special provisions:	A3 A4 A137
Emergency Response Guide-Code (ERG):	6L

## 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

## SECTION 15: Regulatory information

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

#### National regulations - Great Britain

Hazchem-Code: 2X  
No data available

#### National regulations - EC member states

Further regulations, limitations and legal requirements:  
Use restriction according to REACH annex XVII, no.: 3



## 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

## SECTION 16: Other information

### Further information

Wording of the H-phrases under paragraph 2 and 3:

H302 = Harmful if swallowed.

H315 = Causes skin irritation.

H317 = May cause an allergic skin reaction.

H318 = Causes serious eye damage.

H319 = Causes serious eye irritation.

H330 = Fatal if inhaled.

H331 = Toxic if inhaled.

H334 = May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 = May cause respiratory irritation.

H400 = Very toxic to aquatic life.

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

H412 = Harmful to aquatic life with long lasting effects.

EUH204 = Contains isocyanates. May produce an allergic reaction.

Reason of change: Changes in section 2: Labelling  
Changes in section 3: Composition / information on ingredients  
Changes in section 15: Regulatory information  
General revision

Date of first version: 6/7/2005

### Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.