

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 16.03.2009

Revision: 16.03.2009

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** Qu-connector
- **Article number:** 540 0116 3
- **Application of the substance / the preparation** Bonding agent for Qu-resin.
- **Manufacturer/Supplier:**
bredent GmbH & Co.KG
Weißenhorners Straße 2
89250 Senden
Tel: +49 (0) 7309/872-0
Fax: +49 (0) 7309/872-24
- **Further information obtainable from:**
R & D
e-mail: R.D@bredent.com
- **Information in case of emergency:** (001)3523233500 (24 h)

2 Hazards identification

- **Hazard description:**



Xi Irritant
F Highly flammable

- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
R 11 Highly flammable.
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 43 May cause sensitisation by skin contact.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 80-62-6 EINECS: 201-297-1	methyl methacrylate Xi, F; R 11-37/38-43	50-100%
CAS: 3524-68-3 EINECS: 222-540-8	pentaerythritol triacrylate Xi; R 36/38-43	25-50%
	Acrylic polymers Xi; R 43	1-5%
CAS: 10373-78-1	D,L-Campherchinon Xi; R 36/37/38	1-5%
CAS: 75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)-phosphineoxide Xn; R 62-52/53	1-5%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.

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- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:**
Ensure adequate ventilation
Wear protective clothing.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Keep away from ignition sources.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

80-62-6 methyl methacrylate

WEL	Short-term value: 416 mg/m ³ , 100 ppm Long-term value: 208 mg/m ³ , 50 ppm
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· **Additional information:** The lists valid during the making were used as basis.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

Preventive skin protection by use of skin-protecting agents is recommended.



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

Form:	Fluid
Colour:	Yellow
Odour:	Characteristic

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 101°C

· **Flash point:** 10°C

· **Ignition temperature:** 430°C

· **Self-igniting:** Product is not selfigniting.

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· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	2.1 Vol %
Upper:	12.5 Vol %
· Density:	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Solvent content:	
Organic solvents:	0.0 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions**
Exothermic polymerization.
Reacts with peroxides and other radical forming substances.
- **Dangerous decomposition products:**
The following may be given off during a fire:
Carbon monoxide and carbon dioxide
Poisonous gases/vapours

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

80-62-6 methyl methacrylate

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50/4h	29.8 mg/l (rat)

75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)-phosphineoxide

Oral	LD50	>5000 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
- **Sensitisation** May cause sensitisation by skin contact.

12 Ecological information

- **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.

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13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Non contaminated packagings may be treated like household garbage.

14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 339
- **UN-Number:** 1247
- **Packaging group:** II
- **Hazard label:** 3
- **Description of goods:** 1247 METHYL METHACRYLATE MONOMER, STABILIZED, mixture

- **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1247
- **Label** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** METHYL METHACRYLATE MONOMER, STABILIZED, mixture

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1247
- **Label** 3
- **Packaging group:** II
- **Proper shipping name:** METHYL METHACRYLATE MONOMER, STABILIZED, mixture

15 Regulatory information

- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

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· **Code letter and hazard designation of product:***Xi Irritant**F Highly flammable*· **Hazard-determining components of labelling:***methyl methacrylate**pentaerythritol triacrylate**Acrylic polymers*· **Risk phrases:***11 Highly flammable.**36/37/38 Irritating to eyes, respiratory system and skin.**43 May cause sensitisation by skin contact.*· **Safety phrases:***23 Do not breathe fumes/aerosol.**24/25 Avoid contact with skin and eyes.**26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.**27 Take off immediately all contaminated clothing.**28 After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer).**37/39 Wear suitable gloves and eye/face protection.***16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant R-phrases***11 Highly flammable.**36/37/38 Irritating to eyes, respiratory system and skin.**36/38 Irritating to eyes and skin.**37/38 Irritating to respiratory system and skin.**43 May cause sensitisation by skin contact.**52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**62 Possible risk of impaired fertility.*· **Department issuing MSDS: R & D**· **Contact: R & D**· *** Data compared to the previous version altered.**

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