

Material Safety Data Sheet

According to 91/155 EEC

Printing date 29.03.2006

Reviewed on 01.03.2006







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

- **Product details**
- **Trade name:** FGP bonding agent
- **Article number:** 540 0102 6
- **Application of the substance / the preparation** Bonding agent for FGP Friction fit system.
- **Manufacturer/Supplier:**
Bredent
Weißenhorners Straße 2
D-89250 Senden
Tel.: +49 (0) 7309/872-0
Fax: +49 (0) 7309/872-24
- **Further information obtainable from:** R & D
- **Information in case of emergency:** Tel.: +49 (0) 6132-84436 (24 h)

2 Composition/information on ingredients

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

- **Dangerous components:**

CAS: 75-65-0 EINECS: 200-889-7	2-methylpropan-2-ol	 Xn,  F; R 11-20	1-5%
CAS: 108-10-1 EINECS: 203-550-1	4-methylpentan-2-one	 Xn,  F; R 11-20-36/37-66	1-5%
CAS: 94-36-0 EINECS: 202-327-6	dibenzoyl peroxide	 Xi,  E; R 2-36-43	≤ 1%

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

3 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.

4 First aid measures

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

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- **After swallowing:**
Rinse out mouth and then drink plenty of water.
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
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** Do not allow product to reach sewage system or any water course.
- **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:** Store in cool, dry place in tightly closed receptacles.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** 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.
Store receptacle in a well ventilated area.

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:**

75-65-0 2-methylpropan-2-ol

OES Short-term value: 462 mg/m³, 150 ppm
Long-term value: 308 mg/m³, 100 ppm

108-10-1 4-methylpentan-2-one

OES Short-term value: 416 mg/m³, 100 ppm
Long-term value: 208 mg/m³, 50 ppm
IOELV, Sk, Bmgv

- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Do not eat, drink, smoke or sniff while working.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:**
Use suitable respiratory protective device in case of insufficient ventilation.

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Filter AX

- **Protection of hands:** Solvent resistant gloves
- **Material of gloves**
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.
- **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:** Safety glasses

9 Physical and chemical properties

· General Information

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

· **Flash point:** 11°C

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Density:** Not determined.

· **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** Exothermic polymerization.
- **Dangerous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**
- **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

12 Ecological information

- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly 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 be specially treated adhering to official regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 339
- **UN-Number:** 1120
- **Packaging group:** II
- **Description of goods:** 1120 BUTANOLS

- **Maritime transport IMDG:**
- **IMDG Class:** 3.2
- **UN Number:** 1120
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** BUTANOLS

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

- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1120
- **Label** rfl
- **Packaging group:** II
- **Proper shipping name:** BUTANOLS

15 Regulatory information

- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**
Xi Irritant
F Highly flammable
- **Hazard-determining components of labelling:**
dibenzoyl peroxide
- **Risk phrases:**
11 Highly flammable.
36/37/38 Irritating to eyes, respiratory system and skin.
43 May cause sensitisation by skin contact.
- **Safety phrases:**
9 Keep container in a well-ventilated place.
16 Keep away from sources of ignition - No smoking.
29 Do not empty into drains.

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33 Take precautionary measures against static discharges.

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.*
- 2 *Risk of explosion by shock, friction, fire or other sources of ignition.*
- 20 *Harmful by inhalation.*
- 36 *Irritating to eyes.*
- 36/37 *Irritating to eyes and respiratory system.*
- 43 *May cause sensitisation by skin contact.*
- 66 *Repeated exposure may cause skin dryness or cracking.*

· Department issuing MSDS: R & D**· Contact: R & D**

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