

Material Safety Data Sheet

According to 91/155 EEC

Printing date 29.03.2006

Reviewed on 01.12.2004




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

- **Product details**
- **Trade name:** *FGP insulating agent*
- **Article number:** 540 0102 7
- **Application of the substance / the preparation** *Insulating agent for FGP Friction fit system.*
- **Manufacturer/Supplier:**
*Bredent
 Weißenhorner 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: 67-63-0 EINECS: 200-661-7	propan-2-ol	 Xi,  F; R 11-36-67	25-50%
CAS: 78-92-2 EINECS: 201-158-5	butanol	 Xi; R 10-36/37-67	1-5%

- **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 Irritating to eyes.

- **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

- **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.*

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5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Carbon monoxide (CO)
Carbon dioxide (CO₂)
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Keep away from ignition sources.
- **Measures for environmental protection:**
Dilute with plenty of water.
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:**
Prevent formation of aerosols.
Keep receptacles tightly sealed.
Keep away from heat and direct sunlight.
Use only in well ventilated areas.
- **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 in a cool location.
Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **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:**

67-63-0 propan-2-ol

OES Short-term value: 1250 mg/m³, 500 ppm
Long-term value: 999 mg/m³, 400 ppm

78-92-2 butanol

OES Short-term value: 462 mg/m³, 150 ppm
Long-term value: 308 mg/m³, 100 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.
 Avoid contact with the eyes and skin.
 Do not eat, drink, smoke or sniff while working.
 Do not inhale gases / fumes / aerosols.*
- **Respiratory protection:**
*Use suitable respiratory protective device in case of insufficient ventilation.
 Filter AX*
- **Protection of hands:**
*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**
*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

- **Body protection:** Protective work clothing

9 Physical and chemical properties

· General Information

Form:	Fluid
Colour:	Green
Odour:	Characteristic

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: > 82°C

· **Flash point:** 18°C

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

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

· Explosion limits:

Lower:	3.5 Vol %
Upper:	15.0 Vol %

· **Vapour pressure at 20°C:** <190 hPa

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· **Density at 20°C:** 0.9 g/cm³

· **Solubility in / Miscibility with water:** Soluble.

· **pH-value at 20°C:** 6.5

10 Stability and reactivity

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

11 Toxicological information

· **Acute toxicity:**

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

78-92-2 butanol

Oral	LD50	6480 mg/kg (rat)
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67-63-0 propan-2-ol

Oral	LD50	5045 mg/kg (rat)
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Dermal	LD50	12800 mg/kg (rabbit)
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Inhalative	LC50/4 h	30 mg/l (rat)
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· **Primary irritant effect:**

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **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.

13 Disposal considerations

· **Product:**

· **Recommendation** Must be specially treated adhering to official regulations.

· **European waste catalogue**

07 02 04	other organic solvents, washing liquids and mother liquors
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· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

· Land transport ADR/RID (cross-border)



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 33
- **UN-Number:** 1987
- **Packaging group:** II
- **Hazard label:** 3
- **Description of goods:** 1987 ALCOHOLS, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL), BUTANOLS), special provision 640D

· Maritime transport IMDG:



- **IMDG Class:** 3
- **UN Number:** 1987
- **Label:** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-E
- **Marine pollutant:** No
- **Proper shipping name:** ALCOHOLS, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL), BUTANOLS)

· Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1987
- **Label:** 3
- **Packaging group:** II
- **Proper shipping name:** ALCOHOLS, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL), 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

· Risk phrases:

11 Highly flammable.
36 Irritating to eyes.

· Safety phrases:

2 Keep out of the reach of children.
9 Keep container in a well-ventilated place.
16 Keep away from sources of ignition - No smoking.
23 Do not breathe aerosol.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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39 Wear eye/face protection.

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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

- 10 Flammable.
- 11 Highly flammable.
- 36 Irritating to eyes.
- 36/37 Irritating to eyes and respiratory system.
- 67 Vapours may cause drowsiness and dizziness.

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

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