

# Material Safety Data Sheet

## According to 91/155 EEC

Printing date 29.03.2006

Reviewed on 24.03.2005

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

· **Product details**

· **Trade name:** Pi-Ku-Plast separating varnish

· **Article number:** 540 0018 2

· **Application of the substance / the preparation** separating varnish.

· **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: 64-17-5 EINECS: 200-578-6	ethanol	 F; R 11	50-100%
CAS: 7774-34-7 EINECS: 233-140-8	calcium chloride	 Xi; R 36	10-25%

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

### 3 Hazards identification

· **Hazard description:**



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.

· **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.

Generally the product does not irritate the skin.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

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### 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **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:** No special measures required.
- **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.

### 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:**

64-17-5 ethanol

OES Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

- **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.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:**



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

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- **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

### 9 Physical and chemical properties

- **General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Alcohol-like

- **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 78°C

- **Flash point:** 13°C

- **Ignition temperature:** 425°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:** 59 hPa

- **Density:** Not determined.

- **Solubility in / Miscibility with water:** Fully miscible.

### 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:**

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritating effect.

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

### 12 Ecological information

· **General notes:**

*Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water*

*Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*

### 13 Disposal considerations

· **Product:**

· **Recommendation**

*Must not be disposed together with household garbage. Do not allow product to reach sewage system.*

· **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):** 33

· **UN-Number:** 1170

· **Packaging group:** II

· **Hazard label:** 3

· **Description of goods:** 1170 ETHANOL (ETHYL ALCOHOL), mixture

· **Maritime transport IMDG:**



· **IMDG Class:** 3

· **UN Number:** 1170

· **Label:** 3

· **Packaging group:** II

· **EMS Number:** F-E,S-D

· **Marine pollutant:** No

· **Proper shipping name:** ETHANOL (ETHYL ALCOHOL), mixture

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



· **ICAO/IATA Class:** 3

· **UN/ID Number:** 1170

· **Label:** 3

· **Packaging group:** II

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**· Proper shipping name: ETHANOL, 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.

**· Code letter and hazard designation of product:**

F Highly flammable

**· Risk phrases:**

11 Highly flammable.

**· Safety phrases:**

7/9 Keep container tightly closed and in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

24 Avoid contact with skin.

60 This material and its container must be disposed of as hazardous waste.

## 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 Irritating to eyes.

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

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