

# Material Safety Data Sheet

## According to 91/155 EEC

Printing date 29.03.2006

Reviewed on 14.12.2004

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

- **Product details**
- **Trade name:** Die spacer - Thinner · **Article number:** 540 0070 1
- **Application of the substance / the preparation** Thinner
- **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: 141-78-6	ethyl acetate	Xi, F; R 11-36-66-67	50-100%
EINECS: 205-500-4			

### 3 Hazards identification

- **Hazard description:**



Xi Irritant  
F Highly flammable

- **Information concerning particular hazards for human and environment:** R 11 Highly flammable.

R 36 Irritating to eyes.  
R 66 Repeated exposure may cause skin dryness or cracking.  
R 67 Vapours may cause drowsiness and dizziness.

### 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.  
In case of unconsciousness place patient stably in side position for transportation.
- **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:**  
Drink plenty of water and provide fresh air. Call for a doctor immediately.  
Do not induce vomiting; call for medical help immediately.

### 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.

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- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards caused by the substance, its products of combustion or resulting gases:** Can form explosive gas-air mixtures.  
In case of fire, the following can be released:  
Carbon monoxide (CO)
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

### 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:** 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.  
Do not flush with water or aqueous cleansing agents  
Dispose of the material collected according to regulations.

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.  
Keep receptacles tightly sealed.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Fumes can combine with air to form an explosive mixture.
- **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:** Not required.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.  
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.

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· **Ingredients with limit values that require monitoring at the workplace: 141-78-6 ethyl acetate**

OES Short-term value: 400 ppm  
 Long-term value: 200 ppm  
 Rev

· **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.

· **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

· **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.

· **Penetration time of glove material**

The exact break trough 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**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Like aromates

· **Change in condition**

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

**Boiling point/Boiling range:** 77°C

· **Flash point:** -1°C

· **Ignition temperature:** 460°C

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

· **Explosion limits:**

**Lower:** 2.1 Vol %

**Upper:** 11.5 Vol %

· **Vapour pressure at 20°C:** 97 hPa

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· **Density at 20°C:**

0.9 g/cm<sup>3</sup> · **Solubility in / Miscibility with water at 20°C:**

79 g/l · **Additional information:** Data for ethyl-acetate.

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** Reacts with acids, alkalis and oxidizing agents.
- **Dangerous decomposition products:**  
No dangerous decomposition products known.  
The following may be given off during a fire:  
Carbon monoxide and carbon dioxide Acetic acid

### 11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values relevant for**

**classification: 141-78-6 ethyl acetate**

Oral	LD50	5620 mg/kg (rabbit)
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Inhalative LC50/4 h	1600 mg/l (rat)
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· **Primary irritant effect:**

- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **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 product 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.

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- **Danger code (Kemler):** 33
- **UN-Number:** 1173
- **Packaging group:** II
- **Hazard label:** 3
- **Description of goods:** 1173 ETHYL ACETATE

- **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1173
- **Label:** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** ETHYL ACETATE

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



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1173
- **Label:** 3
- **Packaging group:** II
- **Proper shipping name:** ETHYL ACETATE

### 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.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

- **Safety phrases:**

- 2 Keep out of the reach of children.
- 16 Keep away from sources of ignition - No smoking.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 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.

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**· Relevant R-phrases**

11Highly flammable.

36Irritating to eyes.

66Repeated exposure may cause skin dryness or cracking.

67Vapours may cause drowsiness and dizziness.

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

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