

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.03.2013

Revision: 04.03.2013

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

- **Product identifier**
- **Trade name:** MKZ Primer, MKZ EM-Aktivator, K-Primer
- **Article number:** MKZ02004, APK25003, MKZEM004
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** Metal-resin bonding agent; Ceramic-resin bonding agent.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
bredent GmbH & Co.KG  
Weißenhorner 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
- **Emergency telephone number:** (001) 352 323 3500

## 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36: Irritating to eyes.



Xi; Sensitising

R43: May cause sensitisation by skin contact.



F; Highly flammable

R11: Highly flammable.

R66-67: Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

- **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.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Has a narcotizing effect.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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- **Label elements**

- **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.  
43 May cause sensitisation by skin contact.  
66 Repeated exposure may cause skin dryness or cracking.  
67 Vapours may cause drowsiness and dizziness.

- **Safety phrases:**

9 Keep container in a well-ventilated place.  
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.  
28 After contact with skin, wash immediately with plenty of soap and water.

- **Other hazards**

- **Results of PBT and vPvB assessment**

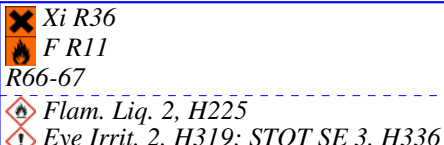
· **PBT:** Not applicable.  
· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

|                                   |          |  |         |
|-----------------------------------|----------|--|---------|
| CAS: 78-93-3<br>EINECS: 201-159-0 | butanone |  | 50-100% |
|-----------------------------------|----------|--|---------|

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

### 4 First aid measures

- **Description of 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:**

Rinse out mouth and then drink plenty of water.  
Inform doctor. Do not give milk or fatty oils.  
Do not induce vomiting; call for medical help immediately.

- **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.  
· **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

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### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.  
Can form explosive gas-air mixtures.
- **Advice for firefighters**
- **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

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.  
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
No special precautions are necessary if used correctly.  
Keep receptacles tightly sealed.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **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.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

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

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- **Control parameters**

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

- 78-93-3 butanone

|     |   |
|-----|---|
| WEL | Short-term value: 899 mg/m <sup>3</sup> , 300 ppm |
|     | Long-term value: 600 mg/m <sup>3</sup> , 200 ppm  |
| Sk  |   |

- **Additional information:** The lists valid during the making were used as basis.

- **Exposure controls**

- **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:**

Not necessary if room is well-ventilated.

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:**



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**

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

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Fluid

**Colour:** Colourless

- **Odour:** Solvent-like

- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

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|   |   |
|---|---|
| · <b>Change in condition</b>                      |   |
| Melting point/Melting range:                      | Undetermined.   |
| Boiling point/Boiling range:                      | Undetermined.   |
| · <b>Flash point:</b>                             | -4 °C   |
| · <b>Ignition temperature:</b>                    |   |
| Decomposition temperature:                        | Not determined.   |
| · <b>Self-igniting:</b>                           | Product is not selfigniting.  |
| · <b>Danger of explosion:</b>                     | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · <b>Explosion limits:</b>                        |   |
| Lower:  | Not determined.   |
| Upper:  | Not determined.   |
| · <b>Vapour pressure:</b>                         | Not determined.   |
| · <b>Density:</b>                                 | Not determined.   |
| · <b>Relative density</b>                         | Not determined.   |
| · <b>Vapour density</b>                           | Not determined.   |
| · <b>Evaporation rate</b>                         | Not determined.   |
| · <b>Solubility in / Miscibility with water:</b>  | Not miscible or difficult to mix.   |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.   |
| · <b>Viscosity:</b>                               |   |
| Dynamic:  | Not determined.   |
| Kinematic:  | Not determined.   |
| · <b>Other information</b>                        | No further relevant information available.  |

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

#### 78-93-3 butanone

|        |      |                     |
|--------|------|---------------------|
| Oral   | LD50 | 3300 mg/kg (rat)    |
| Dermal | LD50 | 5000 mg/kg (rabbit) |

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

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· **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**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional 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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Must be specially treated adhering to official regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

- |   |  |
|---|--|
| · <b>UN-Number</b>  | 1193   |
| · <b>ADR, IMDG, IATA</b>  |  |
| · <b>UN proper shipping name</b>  | 1193 ETHYL METHYL KETONE (METHYL ETHYL KETONE), solution |
| · <b>ADR</b>  |  |
| · <b>IMDG, IATA</b>   | ETHYL METHYL KETONE (METHYL ETHYL KETONE), solution      |
| · <b>Transport hazard class(es)</b>   |  |
| · <b>ADR, IMDG, IATA</b>  |  |
|  |  |
| · <b>Class</b>  | 3 Flammable liquids.                                     |
| · <b>Label</b>  | 3  |
| · <b>Packing group</b>  |  |
| · <b>ADR, IMDG, IATA</b>  | II   |

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|  |  |
|--|--|
| · <b>Environmental hazards:</b>  |  |
| · <b>Marine pollutant:</b>   | No   |
| · <b>Special precautions for user</b>  | Warning: Flammable liquids.  |
| · <b>Danger code (Kemler):</b>   | 33   |
| · <b>EMS Number:</b>   | F-E,S-D  |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.  |
| · <b>Transport/Additional information:</b>                                       |  |
| · <b>ADR</b>   |  |
| · <b>Limited quantities (LQ)</b>   | LQ4  |
| · <b>Transport category</b>  | 2  |
| · <b>Tunnel restriction code</b>   | D/E  |
| · <b>UN "Model Regulation":</b>  | UN1193, ETHYL METHYL KETONE (METHYL ETHYL KETONE), solution, 3, II |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **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.  
43 May cause sensitisation by skin contact.  
66 Repeated exposure may cause skin dryness or cracking.  
67 Vapours may cause drowsiness and dizziness.
- **Safety phrases:**  
9 Keep container in a well-ventilated place.  
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.  
28 After contact with skin, wash immediately with plenty of soap and water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 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 phrases**  
H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.
- **Risk phrases:**  
R11 Highly flammable.  
R36 Irritating to eyes.  
R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapours may cause drowsiness and dizziness.
- **Department issuing MSDS:** R & D

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**· Contact: R & D****· Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

**· \* Data compared to the previous version altered.**

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