



**Safety data sheet  
according to 1907/2006/EC, Article 31**

Printing date 03.06.2017

Version number 3

Revision: 03.06.2017

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

· **1.1 Product identifier**

· Trade name: **iBond Self Etch**

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.

· **Application of the substance / the mixture** Dental bonding material

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Kulzer GmbH

Leipziger Straße 2, 63450 Hanau (Germany)

Tel.: +49 (0)800 4372522

· **Informing department:** E-Mail: [msds@kulzer-dental.com](mailto:msds@kulzer-dental.com)

· **1.4 Emergency telephone number:** Emergency CONTACT (24-Hour-Number): +49 (0)6132-84463

**SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

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

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H336 May cause drowsiness or dizziness.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Danger

· **Hazard-determining components of labelling:**

4-methacryloxyethyltrimellitic acid anhydride

acetone

2-hydroxyethyl methacrylate

· **Hazard statements**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

· **Precautionary statements**

P210

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241

Use explosion-proof electrical/ventilating/lighting/equipment.

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P303+P361+P353 *IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

P321 *Specific treatment (see on this label).*

P405 *Store locked up.*

**2.3 Other hazards -**

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

**3.2 Chemical characterisation: Mixtures**

- **Description:** Product based on methacrylates

**Dangerous components:**

CAS: 67-64-1 EINECS: 200-662-2	acetone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	25-50%
CAS: 70293-55-9	4-methacryloxyethyltrimellitic acid anhydride Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	10-25%
CAS: 868-77-9 EINECS: 212-782-2	2-hydroxyethyl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	< 1%

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

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

- **After inhalation** Supply fresh air and call for doctor for safety reasons.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
In case of persistent symptoms consult doctor.

**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing agents**

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

**5.2 Special hazards arising from the substance or mixture**

Can form explosive gas-air mixtures.

Formation of toxic gases is possible during heating or in case of fire.

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**5.3 Advice for firefighters**

- **Protective equipment:** Do not inhale explosion gases or combustion gases.
- **Additional information -**

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**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

**6.2 Environmental precautions:** Prevent material from reaching sewage system, holes and cellars.

**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).

Ensure adequate ventilation.

Send for recovery or disposal in suitable containers.

**6.4 Reference to other sections**

See Section 13 for information on disposal.

See Section 8 for information on personal protection equipment.

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**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Keep containers tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

**Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage**

· **Requirements to be met by storerooms and containers:** Store in cool location.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Keep receptacle tightly sealed.

Protect from the effects of light.

**7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

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

**8.1 Control parameters**

· **Components with critical values that require monitoring at the workplace:**

**67-64-1 acetone**

OELV | 1210 mg/m<sup>3</sup>, 500 ppm

· **DNELs**

**67-64-1 acetone**

Oral	ge.pop., l.te, syst.	62 mg/Kg (nd)
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Dermal	worker profess., acute, syst.	2420 mg/Kg/d (nd)
	worker profess., l.te., syst.	186 mg/Kg/d (nd)
	ge.pop., l.te., syst.	62 mg/Kg/d (nd)
Inhalative	worker profess., l.te., syst.	1210 mg/m3 (nd)
	ge.pop., l.te., syst.	200 mg/m3 (nd)

**· PNECs**

**67-64-1 acetone**

freshwater	10.6 mg/l (nd)
marine water	1.06 mg/l (rabbit)
STP	19.5 mg/l (nd)
sedim., dw, fre.wat.	30.4 mg/Kg (nd)
sedim., dw, mar.wat.	3.04 mg/Kg (nd)
soil,dw	0.112 mg/Kg (nd)

**· Additional information:** The lists that were valid during the compilation were used as basis.

**· 8.2 Exposure controls**

**· Personal protective equipment**

**· General protective and hygienic measures**

- Avoid contact with the eyes.
- Keep away from foodstuffs, beverages and food.
- Instantly remove any soiled and impregnated garments.
- Wash hands during breaks and at the end of the work.
- Avoid contact with the eyes and skin.

**· Breathing equipment:** Not required.

**· Protection of hands:**

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- If skin contact cannot be avoided, protective gloves are recommended to avoid possible sensitization.
- Check protective gloves prior to each use for their proper condition.
- recommended

**· 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

**· For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

- Butyl rubber, BR
- Nitrile rubber, NBR

**· Eye protection:** Safety glasses

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· **Body protection:** Light weight protective clothing

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**SECTION 9: Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:**

Fluid

· **Colour:**

Yellowish

· **Smell:**

Characteristic

· **Odour threshold:**

Not determined.

· **pH-value:**

Not determined.

· **Change in condition**

· **Melting point/Melting range:**

Not determined

· **Boiling point/Boiling range:**

55 °C

· **Flash point:**

-19 °C

· **Inflammability (solid, gaseous)**

Not applicable.

· **Ignition temperature:**

465 °C

· **Decomposition temperature:**

Not determined.

· **Self-inflammability:**

Product is not selfigniting.

· **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapour mixtures is possible.

· **Critical values for explosion:**

· **Lower:**

2.6 Vol %

· **Upper:**

13.0 Vol %

· **Steam pressure at 20 °C:**

247 hPa

· **Density at 20 °C**

1 g/cm<sup>3</sup>

· **Relative density**

Not determined.

· **Vapour density**

Not determined.

· **Evaporation rate**

Not determined.

· **Solubility in / Miscibility with**

· **Water:**

Partly miscible

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· **dynamic:**

Not determined.

· **kinematic:**

Not determined.

· **9.2 Other information**

No further relevant information available.

**SECTION 10: Stability and reactivity**

· **10.1 Reactivity** No further relevant information available.

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- **10.2 Chemical stability**
  - **Conditions to be avoided:** Protect from heat and direct sunlight.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** None

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
  - **Acute toxicity** Based on available data, the classification criteria are not met.

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

**67-64-1 acetone**

Oral LD50 5800 mg/kg (rat)

Dermal LD50 20000 mg/kg (rabbit)

**41137-60-4 diurethandimethacrylate**

Oral LD50 >5000 mg/kg (rat)

**70293-55-9 4-methacryloxyethyltrimellitic acid anhydride**

Oral LD50 > 2000 mg/kg (mouse)

Dermal LD50 > 2000 mg/kg (mouse)

**868-77-9 2-hydroxyethyl methacrylate**

Oral LD50 5564 mg/kg (rat)

Dermal LD50 >3000 mg/kg (can)

- **Primary irritant effect:**
  - **Skin corrosion/irritation**  
Causes skin irritation.
  - **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
  - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - **Carcinogenicity** Based on available data, the classification criteria are not met.
  - **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

- **12.1 Toxicity**

· **Aquatic toxicity:**

**67-64-1 acetone**

EC50/48h 6100 mg/l (daphnia)

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LC50/96h	5540 mg/l (fish)
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**868-77-9 2-hydroxyethyl methacrylate**

LC50/96h	227 mg/l (fish)
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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
  - **Additional ecological information:**
    - **General notes:** Do not allow product to reach ground water, water bodies or sewage system.
- **12.5 Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.


**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
  - **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Disposal must be made according to official regulations.
  - **European waste catalogue**

18 01 06	chemicals consisting of or containing dangerous substances
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  - **Uncleaned packagings:**
    - **Recommendation:** Disposal must be made according to official regulations.
    - **Recommended cleaning agent:** Water, if necessary with cleaning agent.

**SECTION 14: Transport information**

- **14.1 UN-Number**
  - **ADR, IMDG, IATA** 1090
- **14.2 UN proper shipping name**
  - **ADR** 1090 ACETONE, solution
  - **IMDG, IATA** ACETONE, solution
- **14.3 Transport hazard class(es)**
  - **ADR**



    - **Class** 3 (F1) Flammable liquids.

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· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Kemler Number:	33
· EMS Number:	F-E,S-D
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	-
· ADR	
· Limited quantities (LQ)	1L
· Transport category	2
· Tunnel restriction code	D/E
· UN "Model Regulation":	UN1090, ACETONE, solution, 3, II

**SECTION 15: Regulatory information**

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

These data are based on our present knowledge. However, they 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.
  - H315 Causes skin irritation.
  - H317 May cause an allergic skin reaction.
  - H319 Causes serious eye irritation.
  - H336 May cause drowsiness or dizziness.

· **Abbreviations and acronyms:**

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

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*IMDG: International Maritime Code for Dangerous Goods*  
*IATA: International Air Transport Association*  
*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*DNEL: Derived No-Effect Level (REACH)*  
*PNEC: Predicted No-Effect Concentration (REACH)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*Flam. Liq. 2: Flammable liquids – Category 2*  
*Skin Irrit. 2: Skin corrosion/irritation – Category 2*  
*Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*  
*Skin Sens. 1: Skin sensitisation – Category 1*  
*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

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

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