

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

070441105

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

070441113

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

070441139

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 06/02/2015

Reviewed on 06/02/2015

**1 Identification**· **Product identifier**· Trade name: **iBond Universal**· **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· **Details of the supplier of the safety data sheet**· **Manufacturer/Supplier:**Heraeus Kulzer GmbH  
Grüner Weg 11, D-63450 Hanau

Tel.: 0800 4372522

· **Information department:**Marc Henn  
Tel. +1 (574) 2995444 / Fax: +1 (574) 2912542  
e-mail: marc.henn@kulzer-dental.com· **Emergency telephone number:**Emergency CONTACT (24-Hour-Number)  
GBK/Infotrac ID 105860: (domestic) 1 800 535 5053 or international (001) 352 323 3500**2 Hazard(s) identification**· **Classification of the substance or mixture**

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

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

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

STOT SE 3 H336 May cause drowsiness or dizziness.

· **Label elements**· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

GHS02 GHS07

· **Signal word** Danger· **Hazard-determining components of labeling:**

4-methacryloxyethyltrimellitic acid anhydride

· **Hazard statements**

Highly flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause drowsiness or dizziness.

· **Precautionary statements**

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

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

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

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

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **Classification system**
- **NFPA ratings for USA (scale 0-4)**



- **HMIS-Ratings (Scale 0-4)**

|            |   |                |
|------------|---|----------------|
| HEALTH     | 1 | Health = 1     |
| FIRE       | 3 | Fire = 3       |
| REACTIVITY | 0 | Reactivity = 0 |

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** -

- **Dangerous components:**

|            |   |        |
|------------|---|--------|
| 67-64-1    | acetone                                       | 25-50% |
| 70293-55-9 | 4-methacryloxyethyltrimellitic acid anhydride | 10-25% |

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation**  
Supply fresh air and to be sure call for a doctor.  
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. If symptoms persist, consult a doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
If symptoms persist consult 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.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing 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**  
Can form explosive gas-air mixtures.  
Formation of toxic gases is possible during heating or in case of fire.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.
- **Additional information -**

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**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Prevent seepage into sewage system, workpits and cellars.
- **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 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**

- **Precautions for safe handling** Keep receptacles tightly sealed.
- **Information about protection against explosions and fires:**  
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 receptacle tightly sealed.  
Protect from exposure to the light.  
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 systems:** No further data; see item 7.
- **Control parameters**

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

**67-64-1 acetone**

|     |  |
|-----|--|
| PEL | 2400 mg/m <sup>3</sup> , 1000 ppm  |
| REL | 590 mg/m <sup>3</sup> , 250 ppm  |
| TLV | Short-term value: (1782) NIC-1187 mg/m <sup>3</sup> , (750) NIC-500 ppm<br>Long-term value: (1188) NIC-475 mg/m <sup>3</sup> , (500) NIC-200 ppm |
| BEI |  |

· **Ingredients with biological limit values:**

**67-64-1 acetone**

|     |   |
|-----|---|
| BEI | 50 mg/L<br>urine<br>end of shift<br>Acetone (nonspecific) |
|-----|---|

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

· **Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

- Avoid contact with the eyes.
- 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.

· **Breathing equipment:**

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.

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.

· **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 gloves made of the following materials are suitable:**

- Butyl rubber, BR
- Nitrile rubber, NBR

· **Eye protection:** Safety glasses

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

**9 Physical and chemical properties**

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

· **General Information**

· **Appearance:**

- **Form:** Liquid
- **Color:** Clear
- **Odor:** Characteristic
- **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

- **Melting point/Melting range:** undetermined
- **Boiling point/Boiling range:** undetermined

· **Flash point:** -19 °C (-2 °F)

· **Flammability (solid, gaseous)** Not applicable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

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|   |  |
|---|--|
| · <b>Danger of explosion:</b>                     | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |
| · <b>Explosion limits:</b>                        |  |
| · Lower:  | Not determined.  |
| · Upper:  | Not determined.  |
| · <b>Vapor pressure:</b>                          | Not determined.  |
| · <b>Density:</b>                                 | Not determined   |
| · Relative density                                | Not determined.  |
| · Vapour density                                  | Not determined.  |
| · Evaporation rate                                | Not determined.  |
| · <b>Solubility in / Miscibility with</b>         |  |
| · Water:  | Partly miscible  |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.  |
| · <b>Viscosity:</b>                               |  |
| · dynamic:  | Not determined.  |
| · kinematic:                                      | Not determined.  |
| · <b>Solvent content:</b>                         |  |
| · Water:  | 19.0 %   |
| · <b>Solids content:</b>                          | 19.1 %   |
| · <b>Other information</b>                        | No further relevant information available.   |

**10 Stability and reactivity**

- **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:** none
- **Additional information:** -

**11 Toxicological information**

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

|   |      |                      |
|---|------|----------------------|
| · <b>LD/LC50 values that are relevant for classification:</b>   |      |                      |
| <b>67-64-1 acetone</b>  |      |                      |
| Oral  | LD50 | 5800 mg/kg (rat)     |
| Dermal  | LD50 | 20000 mg/kg (rabbit) |
| <b>41137-60-4 diurethandimethacrylate</b>                       |      |                      |
| Oral  | LD50 | >5000 mg/kg (rat)    |
| <b>70293-55-9 4-methacryloxyethyltrimellitic acid anhydride</b> |      |                      |
| Oral  | LD50 | > 2000 mg/kg (mouse) |
| Dermal  | LD50 | > 2000 mg/kg (mouse) |

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

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· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**12 Ecological information**

· **Toxicity**

· **Aquatic toxicity:**

**67-64-1 acetone**

EC50/48h 6100 mg/l (daphnia)

LC50/96h 5540 mg/l (fish)

· **Persistence and degradability** No further relevant information available.

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· **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**

Disposal must be made according to official regulations.

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

· **Uncleaned packagings:**

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

**14 Transport information**

· **UN-Number**

· **DOT, ADR, IMDG, IATA**

UN1090

· **UN proper shipping name**

· **DOT, IMDG, IATA**

ACETONE, mixture

· **ADR**

1090 ACETONE, mixture

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|   |   |                                 |
|---|---|---------------------------------|
| <b>Transport hazard class(es)</b>   |   | (Contd. of page 6)              |
| · DOT   |  |                                 |
| · Class   |   | 3 Flammable liquids             |
| · Label   |   | 3                               |
| · ADR   |  |                                 |
| · Class   |   | 3 (F1) Flammable liquids        |
| · Label   |   | 3                               |
| · IMDG, IATA  |  |                                 |
| · Class   |   | 3 Flammable liquids             |
| · Label   |   | 3                               |
| · Packing group   |   |                                 |
| · DOT, ADR, IMDG, IATA  |   | II                              |
| · Environmental hazards:  |   |                                 |
| · Marine pollutant:   |   | No                              |
| · Special precautions for user  |   | Warning: Flammable liquids      |
| · Danger code (Kemler):   |   | 33                              |
| · EMS Number:   |   | F-E, S-D                        |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code |   | Not applicable.                 |
| · Transport/Additional information:                                       |   | -                               |
| · UN "Model Regulation":  |   | UN1090, Acetone, mixture, 3, II |

**15 Regulatory information**

· Safety, health and environmental regulations/legislation specific for the substance or mixture

· SARA Section 355 (extremely hazardous substances)  
None of the ingredients is listed.

· TSCA (Toxic Substances Control Act) Medical devices are exempted from TSCA.

· Cancerogenity categories

· TLV (Threshold Limit Value established by ACGIH)  
67-64-1 acetone

· GHS label elements A4

The product is classified and labeled according to the Globally Harmonized System (GHS).



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Trade name: **iBond Universal**

## · Hazard pictograms



GHS02 GHS07

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· Signal word **Danger**· Hazard-determining components of labeling:  
4-methacryloxyethyltrimellitic acid anhydride

## · Hazard statements

Highly flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause drowsiness or dizziness.

## · Precautionary statements

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

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

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

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

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**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.

· Date of preparation / last revision 06/02/2015 / -

## · 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)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· \* Data compared to the previous version altered.

USA

