



**Safety Data Sheet  
according to WHS Regulations**

Printing date 01.02.2021

Version number 4

Revision: 01.02.2021

Hazardous according to criteria of Australian Safety and Compensation Council.

## 1 Identification

· **Product identifier**

· **Trade name:** **Signum zirconia bond I**

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

· **Application of the substance / the mixture** Zirconia-Resin Bonding System

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

· **Manufacturer/Supplier:**

Kulzer Australia Pty Ltd  
Unit 20, 53 Lorraine Street  
Peakhurst, NSW 2210  
Australia

Tel: +61 (0) 2 9153 0311

· **Informing department:** see above

· **Emergency telephone number:**

Poison Information Number: Australia 13 11 26 & New Zealand 0800 764 766

## 2 Hazard(s) Identification

· **Classification of the substance or mixture**

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

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

· **Label elements**

· **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Danger

· **Hazard statements**

Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

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.

Specific treatment (see on this label).

Store locked up.

· **Other hazards** -

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

(Contd. on page 2)

AUS



**Safety Data Sheet  
according to WHS Regulations**

Printing date 01.02.2021

Version number 4

Revision: 01.02.2021

**Trade name: Signum zirconia bond I**

· **vPvB:** Not applicable.

(Contd. of page 1)

### 3 Composition and Information on Ingredients

· **Chemical characterisation: Mixtures**

· **Description:** -

· **Dangerous components:**

CAS: 67-64-1 EINECS: 200-662-2	acetone Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336	> 90%
CAS: 85590-00-7	10-Methacryl-oxydecyl-dihydrogenphosphat Skin Corr. 1B, H314; Eye Dam. 1, H318	0-5%
CAS: 64-19-7 EINECS: 200-580-7	acetic acid Flam. Liq. 3, H226; Skin Corr. 1A, H314; Acute Tox. 4, H312	< 1%

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

### 4 First Aid Measures

· **Description of first aid measures**

· **After inhalation** Supply fresh air; consult doctor in case of symptoms.

· **After skin contact**

Instantly 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 doctor.

· **After swallowing**

Rinse out mouth and then drink plenty of water.

In case of persistent symptoms consult doctor.

· **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.

### 5 Fire Fighting Measures

· **Extinguishing media**

· **Suitable extinguishing agents**

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

· **For safety reasons unsuitable extinguishing agents** Water with a full water 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.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained breathing apparatus.

Wear full protective suit.

· **Additional information** -

### 6 Accidental Release Measures

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

Wear protective equipment. Keep unprotected persons away.

(Contd. on page 3)

AUS



**Safety Data Sheet  
according to WHS Regulations**

Printing date 01.02.2021

Version number 4

Revision: 01.02.2021

**Trade name: Signum zirconia bond I**

(Contd. of page 2)

- **Environmental precautions:** Prevent material from reaching sewage system, holes 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 containers.
- **Reference to other sections**  
See Section 13 for information on disposal.  
See Section 8 for information on personal protection equipment.
- 

## 7 Handling and Storage

- **Handling**
  - **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.
- **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:**  
Store in cool, dry conditions in well sealed containers.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls and personal protection

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

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

### 67-64-1 acetone

NES (Australia)	Short-term value: 2375 mg/m <sup>3</sup> , 1000 ppm Long-term value: 1185 mg/m <sup>3</sup> , 500 ppm
PEL (USA)	2400 mg/m <sup>3</sup> , 1000 ppm
REL (USA)	590 mg/m <sup>3</sup> , 250 ppm
TLV (USA)	Short-term value: 1782 mg/m <sup>3</sup> , 750 ppm Long-term value: 1188 mg/m <sup>3</sup> , 500 ppm BEI

### 64-19-7 acetic acid

NES (Australia)	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm
PEL (USA)	25 mg/m <sup>3</sup> , 10 ppm
REL (USA)	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm
TLV (USA)	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm

(Contd. on page 4)



**Safety Data Sheet  
according to WHS Regulations**

Printing date 01.02.2021

Version number 4

Revision: 01.02.2021

**Trade name: Signum zirconia bond I**

(Contd. of page 3)

**· DNELs**

**67-64-1 acetone**

Oral	ge.pop., l.te, syst.	62 mg/Kg (nd)
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.

**· 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 necessary with efficient local exhaust. If exposition to vapours is possible, use breathing protective mask (filter A).

**· 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  
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 through 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

(Contd. on page 5)

AUS



**Safety Data Sheet  
according to WHS Regulations**

Printing date 01.02.2021

Version number 4

Revision: 01.02.2021

**Trade name: Signum zirconia bond I**

· **Body protection:** Protective work clothing.

(Contd. of page 4)

## 9 Physical and Chemical Properties

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

· **General Information**

· **Appearance:**

- **Form:** Fluid
- **Colour:** Colourless
- **Smell:** Acetone-like
- **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

- **Melting point/freezing point:** Not determined
- **Initial boiling point and 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.

· **Explosive properties:** 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** Not determined

- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

· **Water:** Not miscible or difficult to mix

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

· **Viscosity:**

- **dynamic:** Not determined.
- **kinematic:** Not determined.

· **Other information** No further relevant information available.

## 10 Stability and Reactivity

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

· **Chemical stability**

· **Conditions to be avoided:** No decomposition if used and stored 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.

(Contd. on page 6)

AUS



**Safety Data Sheet  
according to WHS Regulations**

Printing date 01.02.2021

Version number 4

Revision: 01.02.2021

**Trade name: Signum zirconia bond I**

- **Hazardous decomposition products:** None
- **Additional information:** -

(Contd. of page 5)

### 11 Toxicological Information

- **Information on toxicological effects**

- **Acute toxicity**

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

#### 67-64-1 acetone

Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)

#### 64-19-7 acetic acid

Oral	LD50	3310 mg/kg (rat)
Dermal	LD50	1060 mg/kg (can)

- **Primary irritant effect:**

- **Serious eye damage/irritation** Irritant effect.

- **Respiratory or skin sensitisation** No sensitizing effect known.

- **Subacute to chronic toxicity:**

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

- **Additional toxicological information:** Irritant

### 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.

- **Behaviour in environmental systems:**

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

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

- **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 of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

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

AUS

(Contd. on page 7)



**Safety Data Sheet**  
**according to WHS Regulations**

Printing date 01.02.2021



Version number 4

Revision: 01.02.2021

**Trade name: Signum zirconia bond I**

(Contd. of page 6)

**14 Transport information**

· UN-Number	1090
· ADG, IMDG, IATA	
· UN proper shipping name	1090 ACETONE, solution
· ADG	ACETONE, solution
· IMDG, IATA	
· Transport hazard class(es)	
· ADG	
	
· Class	3 (F1) Flammable liquids.
· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· Packing group	II
· ADG, IMDG, IATA	
· Environmental hazards:	No
· Marine pollutant:	
· Special precautions for user	Warning: Flammable liquids.
· Kemler Number:	33
· EMS Number:	F-E,S-D
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	-
· ADG	
· Limited quantities (LQ)	1L
· Transport category	2
· Tunnel restriction code	D/E
· UN "Model Regulation":	UN1090, ACETONE, solution, 3, II

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - GHS label elements
- The product is classified and labelled according to the Globally Harmonised System (GHS).

(Contd. on page 8)

AUS



**Safety Data Sheet  
according to WHS Regulations**

Printing date 01.02.2021

Version number 4

Revision: 01.02.2021

**Trade name: Signum zirconia bond I**

**Hazard pictograms**



GHS02 GHS07

(Contd. of page 7)

**Signal word** Danger

**Hazard statements**

Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

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.

Specific treatment (see on this label).

Store locked up.

**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.

**Relevant phrases**

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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

(Contd. on page 9)

AUS



**Safety Data Sheet**  
**according to WHS Regulations**

Printing date 01.02.2021

Version number 4

Revision: 01.02.2021

**Trade name: Signum zirconia bond I**

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
\* **Data compared to the previous version altered.**

(Contd. of page 8)

AUS