



## 1. Identification of the substance/mixture and of the Company/undertaking:

1.1 Product identifier:

Product Names: AlloyBond

1.2 Relevant identified use:

Professional dental use: For bonding of amalgam to tooth surfaces.

1.3 Details of the supplier of the Safety Data Sheet:

### **Manufacturer / Supplier**

SDI Limited  
3-13 Brunsdon Street, Bayswater  
Victoria, 3153, Australia

#### **Telephone:**

+61 3 8727 7111 (Business hours)

Southern Dental Industries Ltd  
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Swords Road  
Santry, Dublin 9, Ireland

#### **Telephone:**

+353 1 886 9577 (Business Hours)

#### **Emergency contact number:**

Email: [ray.cahill@sdi.com.au](mailto:ray.cahill@sdi.com.au) (Technical Director, SDI Limited)

SDI (North America) Inc.  
1279 Hamilton Parkway  
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#### **Telephone:**

+1 630 361 9200 (Business hours)

SDI Brasil Indústria e Comércio Ltda  
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Brasil

#### **Telephone:**

+ 55 11 3092 7100 (Business Hours)

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## 2. Hazard Identification

Classification of the substance/mixture:

Hazardous: Alloybond Primer, Alloybond Base and Alloybond Catalyst

**SIGNAL WORD: DANGER**





## 2. Hazard Identification

GHS Classification:

Flam. Liq. 2

Skin Irrit. 2

Eye Irrit. 2

Skin sensitisation (Category 1)

Aquatic Chronic 3

STOT SE 3

Acute Tox. 3

Hazard statement(s):

H301 Toxic if swallowed

H312 Harmful in contact with skin

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H225 Highly flammable liquid

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces – no smoking.

P233 Keep container tightly closed.

P235 Keep cool.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe fumes/vapours.

P101 If medical advice is needed, have product container or instructions for use at hand.

P102 Keep out of reach of children.

P103 Read label and instructions for use before use.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in well ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves and eye/face protection.

Response:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P312 Call a POISON CENTRE or doctor/physician if you feel unwell.

P321/322 Specific treatment / measures, see the Instructions for Use and this SDS.

P337 + P313 If eye irritation persists: Get medical advice/attention.



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## 2. Hazard Identification...continued

Response:

P362 Take off contaminated clothing and wash before reuse.  
P332 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.

Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other:

Alloybond Primer contains acetone and is flammable and therefore must be not be stored anywhere near naked flames.

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## 3. Composition / Information on ingredients

<u>Composition:</u>	<u>CAS No.</u>	<u>Wt. %</u>
<b>Alloybond Base</b>		
Acrylic monomer	-	99.0
Balance ingredient (non-hazardous)		1.0
<b>Alloybond Catalyst</b>		
Acrylic monomer	-	98.0
Balance ingredient (non-hazardous)		2.0
<b>Alloybond Primer</b>		
Acetone	67-64-1	54.0
Acrylic monomer	-	44.0
Balance ingredient (non-hazardous)		2.0

Hazard Classification:

Alloybond Primer:

Flam. Liq. 2; Skin Irrit. 2; Eye Irrit. 2; Skin sensitisation (Category 1); Aquatic Chronic 3; STOT SE 3; Acute Tox. 3: H301; H312; H315; H317; H319; H225; H335; H336; H412.

Alloybond Base and Alloybond Catalyst:

Skin sensitisation (Category 1): H317

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#### 4. First Aid Measures

Eye (contact): Flush opened eye with running water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

Skin (contact): Remove contaminated clothing. Wash skin with plenty of soap and water. In case of allergic reaction or irritation, seek medical attention.

Ingestion: Seek medical attention immediately.

Inhalation: Remove victim from exposure to fresh air and keep at rest in a comfortable position. Provide respiratory support if required and safe to do. If rapid recovery does not occur or if feeling unwell, seek medical attention.

Most important effects, acute and delayed:

The most important known symptoms and effects are described in section 2 and/or in section 11.

Indication of any immediate medical attention and special treatment needed: No data available.

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#### 5. Fire Fighting Measures

Suitable extinguishing media: Sand, chemical foam, carbon dioxide, dry chemicals.

Unusual Fire and Explosion Hazards: Heat can cause polymerization with rapid release of energy which may melt the container. Highly flammable in presence of open flames and sparks, of heat. Hazardous/possible explosive with mixtures with hydrogen peroxide, oxidising materials, and acids due to acetone content.

Unsuitable extinguishing media: No available data

Specific hazards arising from the mixture: Carbon oxides (CO, CO<sub>2</sub>).

Special protective equipment: Use water spray to cool container. No special measures required for small quantity, however good handling practices and wear gloves, glasses.  
Wear approved respirator (eg. Half-Face Filter Respirator Class A1P2 (complying with AS/NZS 1715) for spills in excess of 2 litres) and protective gear.

Advice for firefighters: Wear self contained breathing apparatus for fire fighting eg. approved respirator (eg. Half-Face Filter Respirator Class A1P2 (complying with AS/NZS 1715). Use explosion-proof electrical/ventilating equipment. Ground/bond container and receiving equipment. Use water spray to cool container. Remove all sources of ignition; product is highly flammable containing acetone.

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## 6. Accidental Release Measures

- Personal precautions: Use personal protective equipment.  
Avoid breathing vapours, mist or gas.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.  
For personal protection, see section 8
- Environmental precautions: Prevent any spillage from entering waterways, drains or sewage system.
- Methods for cleaning and containment of spills: Dyke and absorb with inert material (saw dust, sand, diatomaceous earth) and transfer to containers for disposal as hazardous waste in accordance with local regulations.
- Removal of ignition sources, provision of sufficient ventilation, control of dust:
- Remove all sources of ignition; product is highly flammable containing acetone.
  - Wear self-contained breathing apparatus.

## 7. Handling and storage

- Precautions for safe handling: Follow instructions for use. The product should be supplied to or handled by dental professionals.
- Conditions for safe storage, including any incompatibilities:  
Store in a cool place at temperatures between 10°C and 25°C (50° – 77°F) away from direct light.
- Specific end use: Apart from the use mentioned in section 1.2, there are no other uses for the product.

## 8. Exposure controls and personal protection

- Control parameters:  
Occupational exposure limits: Not aware of any national exposure limit.

For acetone:

OHSA:

Chemical name	Cas No	PEL (ppm)	PEL (mg/m <sup>3</sup> )	PEL (ceiling)	STEL (ppm)	STEL (mg/m <sup>3</sup> )
Acetone	67-64-1	500	1200	3000ppm	750	1780

NOHSC:

Chemical name	Cas No	TWA (ppm)	TWA (mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Carcinogen Category
Acetone	67-64-1	500	1,185	1000	2375	-



## 8. Exposure controls and personal protection

NOHSC – National Occupation Health and Safety Commission  
NIOSH – National Institute for Occupation Safety and Health  
OHSА – Occupational Health and Safety Authority  
PEL – Permissible exposure limit  
STEL – Short term exposure limit  
TWA – Time weighted average

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practices.  
Wash hands before breaks and at end of workday.

Personal protective equipment:

Respiratory Protection: None required under normal conditions of use. Avoid inhalation of vapours and use in a well-ventilated area.  
Wear respirator for larger exposure.

Hand Protection: Rubber, latex or PVC gloves.

Eye Protection: Safety glasses or goggles

General Safety and Hygiene Measures: Follow good housekeeping practices and good industrial hygiene in handling this material.  
Remove any naked lights or strong heat sources.

## 9. Physical and chemical properties (of final mixed product)

Appearance: Clear, pale yellow low/ slightly viscous liquid.

Odour: Ester like.

Boiling point: Gels before boiling.

Melting point: Not established.

Specific gravity: 0.8 - 1.15

Flash point: - 20°C (Alloybond Primer)

Flammable: Applicable to Alloybond Primer (contains acetone), approximately 3 - 13% in air.  
Not established for Alloybond Base and Alloybond Catalyst.

Autoflammability: Does not self-ignite.

Explosive properties: Does not present an explosion hazard.

Oxidizing properties: Not established.

Vapour pressure (@ 20°C): Not established.

Relative density: Not established.

Solubility: Insoluble in water (Alloybond Base and Alloybond Catalyst).  
Miscible in water (Alloybond Primer).

Relative density: Not established.

Auto-ignition temperature: Not established.

Decomposition temperature: Not established.

pH: Not established.



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## 10. Stability and Reactivity

Reactivity:	No data available.
Chemical Stability:	Stable under normal conditions.
Conditions to avoid:	Avoid heat, ignition sources, aging, contamination and intense visible light.
Materials to avoid:	Free radical formers, e.g. peroxides, reducing substances and / or heavy metals ions. Reacts violently with bromoform and chloroform in the presence of alkalis or in contact with alkaline surfaces. Decomposes violently in contact with nitric / sulfuric acid mixtures.
Hazardous decomposition products:	None under normal conditions; oxides of carbon when burned.
Hazardous reactivity (Polymerization):	Heat and intense light can cause polymerization. Spontaneous polymerization may occur in the presence of radical formers. May polymerize under these conditions with heat evolution. May ignite in the presence of sparks or naked flame.

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## 11. Toxicological information

### ACETONE Toxicity to Animals:

WARNING:	THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.
Acute oral toxicity (LD50):	3000 mg/kg [Mouse].
Acute toxicity of the vapor (LC50):	44000 mg/m <sup>3</sup> 4 hours [Mouse].
Acute toxicity:	Irritating to skin, eye and mucous membrane. Toxic if swallowed. Harmful in contact with skin and may cause skin sensitisation.
Skin corrosion/irritation:	Irritating to skin and may cause skin allergies.
Serious eye damage/eye irritation:	Irritating to eyes.
Respiratory or skin sensitisation:	May cause skin sensitisation. May cause respiratory irritation and/or dizziness/drowsiness.
Germ cell mutagenicity:	No data available.
Carcinogenicity:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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## 11. Toxicological information...continued

(IARC: International Agency for Research on Cancer, by the World Health Organisation (WHO)).

Reproductive toxicity:	No data available.
Specific target organ toxicity - single exposure:	May cause irritation to eyes, skin and inhalation.
Specific target organ toxicity - repeated exposure:	No data available.
Aspiration hazard:	No data available.

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## 12. Ecological information

Self-assessment:	Slightly hazardous for water. Do not allow large quantities to reach sewage system and waterways.
Ecotoxicity:	No data available.
Persistence and biodegradability:	No data available.
Bioaccumulative potential:	No data available.
Mobility in soil:	No data available.
Results of PBT and VPvB assessment:	PBT/VPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effects:	No data available.

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## 13. Disposal considerations

Dispose of in accordance with local official regulations.

Contaminated packaging:	Dispose of contaminated packaging as hazardous waste in accordance with local official regulations.
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## 14. Transport information

Alloybond Primer solution:

Proper shipping name: Acetone UN1993 Packing Group II Class 3.

If packed as Chemical kits the following classification may be considered if all ICAO/IATA transport requirements are met:

- Chemical Kit UN3316 - Class 9.

Alloybond Base and Alloybond Catalyst are not classified as Dangerous Goods for air, sea, rail or road transport.

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## 15. Regulatory information

This product is regulated by: TGA  
Medical Devices Directive 93/42/EEC  
FDA  
National regulations for medical devices.

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## 16. Other information

The information provided herein is given in good faith, but no warranty expressed or implied is made.

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**Department issuing SDS:** Research and Development

**Contact:** R&D Director

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