

## Safety Data Sheet in accordance with HSNO

Date of issue: 12.08.2025

Version number 6

Revision: 12.08.2025

### 1 Identification of the substance or mixture and of the supplier

· **Other means of identification**

· **Trade name:** G-aenial Bond

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

· **Application of the substance / the mixture** Auxillary for dental technology

· **Details of the supplier of the safety data sheet**  
Henry Schein Dental

243-249 Bush Road, Rosedale  
Auckland 0632, NEW ZEALAND

Free Phone: 0800 808 855

· **Further information obtainable from:** Regulatory affairs

· **Emergency telephone number:** 0800 764 766 (National Poisons Centre)

### 2 Hazards identification

· **Classification of the substance or mixture**

Flammable liquids Category 2

H225 Highly flammable liquid and vapour.

Skin irritation Category 2

H315 Causes skin irritation.

Eye irritation Category 2

H319 Causes serious eye irritation.

Skin sensitisation Category 1

H317 May cause an allergic skin reaction.

Reproductive toxicity Category 1

H360 May damage fertility or the unborn child.

Specific target organ toxicity - single exposure Category 3H336 May cause drowsiness or dizziness.

Hazardous to the aquatic environment chronic Category 3H412 Harmful to aquatic life with long lasting effects.

· **Label elements**

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

· **Exemptions**

The product, regulated as an invasive medical device by the Regulation (EC) 2017/745, is exempted from labelling requirements for substances and mixtures (according to the provision of the Art 1.5).

· **Hazard pictograms**



GHS02

GHS07

GHS08

· **Signal word** Danger

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

acetone

2,2'-ethylenedioxydiethyl dimethacrylate

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

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**· Hazard statements**

Highly flammable liquid and vapour.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
May damage fertility or the unborn child.  
May cause drowsiness or dizziness.  
Harmful to aquatic life with long lasting effects.

**· Precautionary statements**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF exposed or concerned: Get medical advice/attention.  
Specific treatment (see on this label).  
Take off contaminated clothing and wash it before reuse.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

**· Other hazards****· Results of PBT and vPvB assessment**

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

### 3 Composition/Information on ingredients

**· Chemical characterisation: Mixtures****· Description:**

Only substances required to be mentioned according to Annex II of regulation 1907/2006 are listed. Information on the other substances that may be present can be obtained upon request.

**· Dangerous components:**

CAS: 67-64-1 EINECS: 200-662-2	acetone Flammable liquids Category 2, H225; Eye irritation Category 2, H319; Specific target organ toxicity - single exposure Category 3, H336	25-<50%
CAS: 1830-78-0 EINECS: 217-388-4	2-Hydroxy-1,3 dimethacryloxypropane Skin irritation Category 2, H315; Eye irritation Category 2, H319; Specific target organ toxicity - single exposure Category 3, H335	≥10-<20%
CAS: 85590-00-7	methacryloyloxydecyl dihydrogen phosphate Skin irritation Category 2, H315; Eye irritation Category 2, H319; Specific target organ toxicity - single exposure Category 3, H335	5-<10%
CAS: 109-16-0 EINECS: 203-652-6	2,2'-ethylenedioxydiethyl dimethacrylate Skin sensitisation Sub-category 1B, H317	5-<10%
CAS: 75980-60-8 EINECS: 278-355-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Reproductive toxicity Category 1, H360; Skin sensitisation Sub-category 1B, H317	1-<2.5%
CAS: 128-37-0 EINECS: 204-881-4	Butylated hydroxytoluene Hazardous to the aquatic environment acute Category 1, H400; Hazardous to the aquatic environment chronic Category 1, H410	0.5-<1%

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· **SVHC**

75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

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

### 4 First aid measures

- **General information:**

Immediately remove any clothing soiled by the product.

If symptoms persist consult doctor.

- **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

Take affected persons into fresh air and keep quiet.

- **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment.

If skin irritation continues, consult a doctor.

- **After eye contact:**

Protect unharmed eye.

Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** Allergic reactions

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

No further relevant information available.

### 5 Fire fighting measures

- **Suitable extinguishing agents:**

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

Use fire extinguishing methods suitable to surrounding conditions.

- **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.

No further relevant information available.

- **Protective equipment:** Wear self-contained respiratory protective device.

- **Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

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

Remove persons from danger area.

Keep away from ignition sources.

Avoid contact with the eyes and skin.

Wear protective clothing.

- **Environmental precautions:**

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

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*Inform respective authorities in case of seepage into water course or sewage system.*

*Do not allow to penetrate the ground/soil.*

*In case of seepage into the ground inform responsible authorities.*

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

*Ensure adequate ventilation.*

*Absorb liquid components with liquid-binding material.*

*Dispose of the material collected according to regulations.*

· **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**

*Ensure good ventilation/exhaustion at the workplace.*

*Prevent formation of aerosols.*

*Avoid contact with the eyes and skin.*

· **Information about fire - and explosion protection:**

*Keep ignition sources away - Do not smoke.*

*Protect against electrostatic charges.*

*Do not spray onto a naked flame or any incandescent material.*

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

*Store in a cool location.*

*Store only in unopened original receptacles.*

· **Information about storage in one common storage facility:** *Store away from foodstuffs.*

· **Further information about storage conditions:**

*Keep container tightly sealed.*

*Store in cool, dry conditions in well sealed receptacles.*

*Protect from heat and direct sunlight.*

*Store in a cool place.*

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

### 8 Exposure controls/personal protection

· **Appropriate engineering controls** *No further data; see section 7.*

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

**67-64-1 acetone**

*WES (New Zealand)*

*Short-term value: 2375 mg/m<sup>3</sup>, 1000 ppm*

*Long-term value: 1185 mg/m<sup>3</sup>, 500 ppm*

*bio*

*IOELV (European Union)*

*Long-term value: 1210 mg/m<sup>3</sup>, 500 ppm*

· **DNELs**

**128-37-0 Butylated hydroxytoluene**

*Dermal*

*DNEL dermal*

*0.5 mg/kg bw/day (man)*

*Inhalative*

*DNEL inhalation*

*3.5 mg/m<sup>3</sup> (man)*

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

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· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

· **Respiratory protection:** Suitable respiratory protective device recommended.

· **Protection of hands:**



Protective gloves

· **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

· **General Information**

· **Appearance:**

· **Form:** Liquid

· **Colour:** Light yellow

· **Odour:** Ester-like

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· **Melting point/freezing point:** -95 °C

· **Initial boiling point and boiling range:** 56 °C

· **Flash point:** -17 °C

· **Flammability** Highly flammable.

· **Auto-ignition temperature:** Undetermined.

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

· **Lower:** 2.6 Vol %

· **Upper:** 13 Vol %

· **Vapour pressure:** Not determined.

· **Density:** Not determined.

· **Relative density** Not determined.

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· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
· Dynamic:	Not determined.
· Kinematic:	Not determined.
· Solvent content:	
· Organic solvents:	39.0 %
· Water:	20.0 %
· VOC (EC)	487.5 g/l
· Other information	
· Particle characteristics	SiO <sub>2</sub> : Diameter particle structure = 2.5 - 50 nm (TEM, d50, number-based) Diameter agglomerate = 5 - 50 nm (laser diffraction dry module, d50, volume based) Al <sub>2</sub> O <sub>3</sub> : Diameter particle structure = 2 - 100 nm (d50, number-based)
· Physical state	Liquid

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **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** Based on available data, the classification criteria are not met.

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

<b>67-64-1 acetone</b>		
Oral	LD50	5,800 mg/kg (rat (f+m))
Dermal	LD50	20,000 mg/kg (rabbit)
<b>128-37-0 Butylated hydroxytoluene</b>		
Oral	LD50	>6,000 mg/kg (rat (f+m)) (OECD 401)

- **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.
- **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** May damage fertility or the unborn child.
- **STOT-single exposure** May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

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- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Interactive effects**
- **Repeated dose toxicity** No further relevant information available.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
No further relevant information available.

### 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

<b>128-37-0 Butylated hydroxytoluene</b>	
<b>EC50/48h (static)</b>	0.48 mg/l (daphnia magna) (OECD 202)

- **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.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.  
Harmful to aquatic organisms
- **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.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- |                                  |              |
|----------------------------------|--------------|
| · <b>UN-Number</b>               |              |
| · <b>NZS, IMDG, IATA</b>         | UN1090       |
| · <b>UN proper shipping name</b> |              |
| · <b>NZS</b>                     | 1090 ACETONE |
| · <b>IMDG, IATA</b>              | ACETONE      |

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· **Transport hazard class(es)**· **NZS**· **Class**

3 (F1) Flammable liquids.

· **Label**

3

· **IMDG, IATA**· **Class**

3 Flammable liquids.

· **Label**

3

· **Packing group**· **NZS, IMDG, IATA**

II

· **Environmental hazards:**· **Marine pollutant:**

No

· **Special precautions for user**

Warning: Flammable liquids.

· **Hazard identification number (Kemler code):**

33

· **EMS Number:**

F-E,S-D

· **Stowage Category**

E

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **NZS**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **Transport category**

2

· **Tunnel restriction code**

D/E

· **IMDG**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1090 ACETONE, 3, II

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## 15 Regulatory information

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

#### · New Zealand Inventory of Chemicals

67-64-1	acetone
7732-18-5	Water
1830-78-0	2-Hydroxy-1,3 dimethacryloxypropane
70293-55-9	2-[(2-methyl-1-oxoallyl)oxy]ethyl 1,3-dihydro-1,3-dioxoisobenzofuran-5-carboxylate
109-16-0	2,2'-ethylenedioxydiethyl dimethacrylate
68611-44-9	Silane, dichlorodimethyl-, reaction products with silica
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
128-37-0	Butylated hydroxytoluene
1344-28-1	aluminium oxide
10287-53-3	ethyl 4-dimethylaminobenzoate
10373-78-1	Camphorquinone

#### · HSNO Approval numbers

67-64-1	acetone	HSR001070
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#### · GHS label elements The product is classified and labelled according to the Globally Harmonised System (GHS).

#### · Hazard pictograms



GHS02   GHS07   GHS08

#### · Signal word Danger

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

acetone

2,2'-ethylenedioxydiethyl dimethacrylate

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

#### · Hazard statements

Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

May cause drowsiness or dizziness.

Harmful to aquatic life with long lasting effects.

#### · Precautionary statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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

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

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

Store locked up.

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

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category** P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
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- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

- **Relevant phrases**

H225 Highly flammable liquid and vapour.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H360 May damage fertility or the unborn child.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.

- **Department issuing SDS:** Regulatory affairs

- **Contact:** msds@gc.dental

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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)  
 VOC: Volatile Organic Compounds (USA, EU)  
 DNEL: Derived No-Effect Level (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 SVHC: Substances of Very High Concern  
 vPvB: very Persistent and very Bioaccumulative  
 Flammable liquids Category 2: Flammable liquids – Category 2  
 Skin irritation Category 2: Skin corrosion/irritation – Category 2  
 Eye irritation Category 2: Serious eye damage/eye irritation – Category 2  
 Skin sensitisation Category 1: Skin sensitisation – Category 1  
 Skin sensitisation Sub-category 1B: Skin sensitisation – Category 1B  
 Reproductive toxicity Category 1: Reproductive toxicity – Category 1  
 Specific target organ toxicity - single exposure Category 3: Specific target organ toxicity (single exposure) – Category 3  
 Hazardous to the aquatic environment acute Category 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
 Hazardous to the aquatic environment chronic Category 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1  
 Hazardous to the aquatic environment chronic Category 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- **Sources**

- ECHA (<http://echa.europa.eu/>)
- EnviChem ([www.echemportal.org](http://www.echemportal.org))

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**\* Data compared to the previous version altered.***This version replaces all previous versions.***Disclaimer:**

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