

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

Printing date 02.09.2015

Version number 2

Revision: 12.08.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking**· 1.1 Product identifier****· Trade name: GC G-aenial Bond****· 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** Auxillary for dental technology**· 1.3 Details of the supplier of the safety data sheet****· Manufacturer/Supplier:**

GC EUROPE N.V.

Interleuvenlaan 33

B-3001 Leuven

Tel. +32/(0)16/74.10.00

Fax +32/(0)16/40.26.84

msds@gceurope.com

· Further information obtainable from: Regulatory affairs**· 1.4 Emergency telephone number:**

National poison center for United Kingdom of Great Britain and Northern Ireland:

Belfast: +44 28 90 63 2032

Birmingham: +44 121 507 4123

Edinburgh: +44 131 242 1383

Newcastle Upon Tyne: +44 191 2606182/+44 191 2606180

Penarth: +44 292 071 55 54

SECTION 2: Hazards identification**· 2.1 Classification of the substance or mixture****· Classification according to Regulation (EC) No 1272/2008**

Exempt from requirements - product regulated as a medical device or an in vitro diagnostic medical device.

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.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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

Exempt from requirements - product regulated as a medical device or an in vitro diagnostic medical device.

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

· Hazard pictograms

GHS02 GHS07

(Contd. on page 2)

-GB

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

Printing date 02.09.2015

Version number 2

Revision: 12.08.2015

Trade name: GC G-aenial Bond

(Contd. of page 1)

· **Signal word** *Danger*· **Hazard-determining components of labelling:***acetone**2,2'-ethylenedioxydiethyl dimethacrylate*· **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.**H412 Harmful to aquatic life with long lasting effects.*· **Precautionary statements***P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**P280 Wear protective gloves / eye protection / face protection.**P303+P361+P353 IF ON SKIN (or hair): 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.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Additional information:***29.1 % of the mixture consists of component(s) of unknown toxicity.**Contains 29.1 % of components with unknown hazards to the aquatic environment.*· **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:***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 Index number: 606-001-00-8 | <i>acetone</i> <i>Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336</i> | <i>25-50%</i> |
| CAS: 1830-78-0 EINECS: 217-388-4 | <i>2-Hydroxy-1,3 dimethacryloxypropane</i> <i>Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335</i> | <i>10-25%</i> |
| CAS: 85590-00-7 | <i>methacryloyloxydecyl dihydrogen phosphate</i> <i>Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335</i> | <i>5-10%</i> |
| CAS: 109-16-0 EINECS: 203-652-6 | <i>2,2'-ethylenedioxydiethyl dimethacrylate</i> <i>Skin Sens. 1, H317</i> | <i>1-5%</i> |

(Contd. on page 3)

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

Printing date 02.09.2015

Version number 2

Revision: 12.08.2015

Trade name: GC G-aenial Bond

(Contd. of page 2)

| | | |
|--|--|----------|
| CAS: 75980-60-8 EINECS: 278-355-8 Index number: 015-203-00-X | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Repr. 2, H361f | 1-5% |
| CAS: 128-37-0 EINECS: 204-881-4 | 2,6-di-tert-butyl-p-cresol Aquatic Acute 1, H400; Aquatic Chronic 1, H410 | 0.1-0.5% |

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

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **General information:**

Immediately remove any clothing soiled by the product.

If symptoms persist consult doctor.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

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.

· 4.2 Most important symptoms and effects, both acute and delayed Allergic reactions

· 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:**

CO₂, 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

· 5.2 Special hazards arising from the substance or mixture

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

· 5.3 Advice for firefighters

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

· **Additional information**

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

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Remove persons from danger area.

Keep away from ignition sources.

(Contd. on page 4)

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

Printing date 02.09.2015

Version number 2

Revision: 12.08.2015

Trade name: GC G-aenial Bond

(Contd. of page 3)

Avoid contact with the eyes and skin.

Wear protective clothing.

· **6.2 Environmental precautions:**

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

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.

· **6.3 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.

· **6.4 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.

SECTION 7: Handling and storage

· **7.1 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.

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

· **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.

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

SECTION 8: Exposure controls/personal protection

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

· **8.1 Control parameters**

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

67-64-1 acetone

WEL Short-term value: 3620 mg/m³, 1500 ppm

Long-term value: 1210 mg/m³, 500 ppm

(Contd. on page 5)

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

Printing date 02.09.2015

Version number 2

Revision: 12.08.2015

Trade name: GC G-aenial Bond

(Contd. of page 4)

· **DNELs****128-37-0 2,6-di-tert-butyl-p-cresol**

Dermal DNEL dermal 0.5 mg/kg bw/day (man)

Inhalative DNEL inhalation 3.5 mg/m³ (man)· **Additional information:** The lists valid during the making were used as basis.· **8.2 Exposure controls**· **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

SECTION 9: Physical and chemical properties· **9.1 Information on basic 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/Melting range:** -95 °C**Boiling point/Boiling range:** 56 °C· **Flash point:** -16 °C

(Contd. on page 6)

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

Printing date 02.09.2015

Version number 2

Revision: 12.08.2015

Trade name: GC G-aenial Bond

(Contd. of page 5)

| | |
|---|---|
| · Flammability (solid, gaseous): | Not applicable. |
| · Ignition temperature: | Undetermined. |
| · Decomposition temperature: | Not determined. |
| · Self-igniting: | Product is not selfigniting. |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Explosion limits: | |
| Lower: | 2.6 Vol % |
| Upper: | 13.0 Vol % |
| · Vapour pressure: | Not determined. |
| · Density: | Not determined. |
| · Relative density | Not determined. |
| · 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: | 37.9 % |
| Water: | 19.4 % |
| VOC (EC) | 470.0 g/l |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **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:** No dangerous decomposition products known.

SECTION 11: Toxicological information

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

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

67-64-1 acetone

| | | |
|--------|------|------------------------|
| Oral | LD50 | 5800 mg/kg (rat (f+m)) |
| Dermal | LD50 | 20000 mg/kg (rabbit) |

(Contd. on page 7)

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

Printing date 02.09.2015

Version number 2

Revision: 12.08.2015

Trade name: GC G-aenial Bond

(Contd. of page 6)

128-37-0 2,6-di-tert-butyl-p-cresol

| | | |
|------|------|-------------------------------------|
| Oral | LD50 | > 6000 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.
- **Repeated dose toxicity** No further relevant information available.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
No further relevant information available.
- **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:****128-37-0 2,6-di-tert-butyl-p-cresol**

| | |
|-------------------|--------------------------------------|
| EC50/48h (static) | 0.48 mg/l (daphnia magna) (OECD 202) |
|-------------------|--------------------------------------|

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

(Contd. on page 8)

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

Printing date 02.09.2015

Version number 2

Revision: 12.08.2015

Trade name: GC G-aenial Bond

(Contd. of page 7)

· **European waste catalogue**

| | |
|-----------|---|
| 18 00 00 | WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care) |
| 18 01 00 | wastes from natal care, diagnosis, treatment or prevention of disease in humans |
| 18 01 06* | chemicals consisting of or containing dangerous substances |

· **Uncleaned packaging:**· **Recommendation:** Disposal must be made according to official regulations.· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.**SECTION 14: Transport information**· **14.1 UN-Number**· **ADR, IMDG, IATA** UN1090· **14.2 UN proper shipping name**· **ADR** 1090 ACETONE mixture
· **IMDG, IATA** ACETONE mixture· **14.3 Transport hazard class(es)**· **ADR**· **Class** 3 (F1) Flammable liquids.
· **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.· **Danger code (Kemler):**33· **EMS Number:**F-E,S-D· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**Not applicable.

(Contd. on page 9)

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

Printing date 02.09.2015

Version number 2

Revision: 12.08.2015

Trade name: GC G-aenial Bond

(Contd. of page 8)

· Transport/Additional information:**· ADR**

- **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 MIXTURE, 3, II

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.
- H361f Suspected of damaging fertility.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

- **Classification according to Regulation (EC) No 1272/2008** Calculation method

- **Department issuing MSDS:** Regulatory affairs

- **Contact:** msds@gceurope.com

· 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
- 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)
- 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

(Contd. on page 10)

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

Printing date 02.09.2015

Version number 2

Revision: 12.08.2015

Trade name: GC G-aenial Bond

(Contd. of page 9)

vPvB: very Persistent and very Bioaccumulative

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

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

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

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

Repr. 2: Reproductive toxicity, Hazard Category 2

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

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

· **Sources**

• ECHA (<http://echa.europa.eu/>)

• EnviChem (www.echemportal.org)

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

This version replaces all previous versions.

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