

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

Printing date 02.08.2018

Version number 3

Revision: 02.05.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** GC Optiglaze**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@gc.dental

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**

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

Skin Irrit. 2 H315 Causes skin irritation.

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

Repr. 2 H361f Suspected of damaging fertility.

STOT SE 3 H335 May cause respiratory irritation.

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

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

Hazard pictograms

GHS02



GHS07



GHS08

Signal word Danger**Hazard-determining components of labelling:**

Methyl methacrylate

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

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· Hazard statements*H225 Highly flammable liquid and vapour.**H315 Causes skin irritation.**H317 May cause an allergic skin reaction.**H361f Suspected of damaging fertility.**H335 May cause respiratory irritation.***· 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 [or shower].**P308+P313 IF exposed or concerned: Get medical advice/attention.**P321 Specific treatment (see on this label).**P362+P364 Take off contaminated clothing and wash it before reuse.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***· 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: 80-62-6 EINECS: 201-297-1 Index number: 607-035-00-6	Methyl methacrylate Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	25-<50%
CAS: 75980-60-8 EINECS: 278-355-8 Index number: 015-203-00-X	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Repr. 2, H361f	≥3-<5%

· Additional information: For the wording of the listed hazard 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. 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.*

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*If skin irritation continues, consult a doctor.***· After eye contact:***Rinse opened eye for several minutes under running water.**If symptoms persist consult 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, sand, extinguishing powder. Do not use water.**· For safety reasons unsuitable extinguishing agents:** Water**· 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.**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.**Do not allow to penetrate the ground/soil.***· 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.*

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*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:****80-62-6 Methyl methacrylate**

WEL	Short-term value: 416 mg/m ³ , 100 ppm
	Long-term value: 208 mg/m ³ , 50 ppm

· DNELs**80-62-6 Methyl methacrylate**

Dermal	DNEL dermal	13.67 mg/kg bw/day (man) (worker, l. te., syst.)
Inhalative	DNEL inhalation	208 mg/m ³ (air) (worker, l. te., syst.)

· 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.

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· **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:	Fluid
Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	101 °C

· **Flash point:** 10 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** Undetermined.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

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

· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapour pressure:** Not determined.

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

Insoluble.

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

· **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.

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- **Solvent content:**
VOC (EC) 0.0 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** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

80-62-6 Methyl methacrylate

Oral	LD50	6000 mg/kg (rabbit)
Dermal	LD50	>5000 mg/kg (rab)
Inhalative	LC50/4 h	29.8 mg/l (rat (f+m))

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **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**
Suspected of damaging fertility.
- **STOT-single exposure**
May cause respiratory irritation.
- **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:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|--|--|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA | <p style="text-align: center;">UN1247</p> |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG, IATA | <p style="text-align: center;">1247 METHYL METHACRYLATE MONOMER, STABILIZED mixture</p> <p style="text-align: center;">METHYL METHACRYLATE MONOMER, STABILIZED mixture</p> |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR | <div style="text-align: center;">  </div> <p style="text-align: center;">3 (F1) Flammable liquids.</p> <p style="text-align: center;">3</p> |
| <ul style="list-style-type: none"> · IMDG, IATA | <div style="text-align: center;">  </div> <p style="text-align: center;">3 Flammable liquids.</p> <p style="text-align: center;">3</p> |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | <p style="text-align: center;">II</p> |

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· 14.5 Environmental hazards:**· Marine pollutant:** No**· 14.6 Special precautions for user**

Warning: Flammable liquids.

· Danger code (Kemler): 339**· EMS Number:** F-E,S-D**· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· 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 1247 METHYL METHACRYLATE MONOMER, STABILIZED MIXTURE, 3, II

SECTION 15: Regulatory information**· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****· Directive 2012/18/EU****· 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**· REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3**· 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.

H335 May cause respiratory irritation.

H361f Suspected of damaging fertility.

· Classification according to Regulation (EC) No 1272/2008 Calculation method**· Department issuing SDS:** Regulatory affairs**· Contact:** msds@gc.dental**· 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)

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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
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 2: Flammable liquids – Category 2
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Skin Sens. 1: Skin sensitisation – Category 1
 Repr. 2: Reproductive toxicity – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – 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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