

Safety Data Sheet according to WHS Regulations

Printing date 30.11.2020

Version number 3



Revision: 30.11.2020

Hazardous according to criteria of Australian Safety and Compensation Council.

1 Identification

- **Product identifier**
- **Trade name: GC Unifast III Liquid**
- **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**
- **Manufacturer/Supplier:**
GC Australasia Dental Pty Ltd
1753 Botany Road
Banksmeadow, NSW 2019
Tel: +61 2 9301 8200
- **Further information obtainable from:** Regulatory affairs
- **Emergency telephone number:** 24 hours Emergency: 13 11 26.

2 Hazard(s) Identification

- **Classification of the substance or mixture**
Flam. Liq. 2 H225 Highly flammable liquid and vapour.
Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.
- **Label elements**
- **GHS label elements**
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 Globally Harmonised System (GHS).
- **Hazard pictograms**
 
GHS02 GHS07
- **Signal word** Danger
- **Hazard-determining components of labelling:**
Methyl methacrylate
N,N-dimethyl-p-toluidine
6-tert-butyl-2,4-xyleneol
Ethyleneglycol dimethacrylate
2-(2H-benzotriazol-2-yl)-p-cresol

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· **Hazard statements**

Highly flammable liquid and vapour.

Harmful if inhaled.

Causes skin irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

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

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

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

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 and 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:**

80-62-6	Methyl methacrylate Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	75-<90%
99-97-8	N,N-dimethyl-p-toluidine Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT RE 2, H373; Flam. Liq. 4, H227	2.5-<5%
97-90-5	Ethyleneglycol dimethacrylate Skin Sens. 1, H317; STOT SE 3, H335; Flam. Liq. 4, H227	1-<2.5%
1879-09-0	6-tert-butyl-2,4-xylenol Acute Tox. 2, H310; Acute Tox. 3, H331; STOT RE 2, H373; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	0.5-<1%
2440-22-4	2-(2H-benzotriazol-2-yl)-p-cresol Acute Tox. 3, H311; Skin Sens. 1, H317	0.5-<1%

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

4 First Aid Measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

In case of irregular breathing or respiratory arrest provide artificial respiration.

If symptoms persist consult doctor.

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- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
Do not use mouth to mouth or mouth to nose resuscitation.
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:**
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.
- **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

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **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.
- **Advice for firefighters**
- **Protective equipment:**
Mouth respiratory protective device.
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.
Do not allow to penetrate the ground/soil.
- **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.

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

8 Exposure controls and personal protection

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

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

80-62-6 Methyl methacrylate

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

- **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.)

128-37-0 Butylated hydroxytoluene

Dermal	DNEL dermal	0.5 mg/kg bw/day (man)
Inhalative	DNEL inhalation	3.5 mg/m ³ (man)

1879-09-0 6-tert-butyl-2,4-xyleneol

Inhalative	DNEL inhalation	0.14 mg/m ³ (man)
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· PNECs	
99-97-8 N,N-dimethyl-p-toluidine	
PNEC Aqua	152.59 µg/L (freshwater)
3290-92-4 Propylidynetrimethyl trimethacrylate	
PNEC Aqua	2.76 µg/L (freshwater) 20 µg/L (intermittent releases) 0.276 µg/L (marine water)
PNEC STP	10 mg/L (Sewage Treatment Plants)
PNEC Sediment	0.4951 mg/kg sed dw (freshwater) 0.04951 mg/kg sed dw (marine water)
PNEC Air	mg/L (air)
PNEC Soil	0.0974 mg/kg soil dw (soil)
PNEC Predator	mg/kg (Predator)

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

· **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

Store protective clothing separately.

· **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

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9 Physical and Chemical Properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Liquid
Colour:	Clear
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	100 °C (212 °F)
· Flash point:	10 °C (50 °F)
· 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:	2.1 Vol %
Upper:	12.5 Vol %
· Vapour pressure:	Not determined.
· Density at 20 °C (68 °F):	0.9 g/cm ³ (7.5105 lbs/gal)
· 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.
· Solvent content:	
VOC (EC)	0.0 g/l
· Other information	No further relevant information available.

10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **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.

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- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

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

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

80-62-6 Methyl methacrylate

Oral	LD50	6,000 mg/kg (rabbit)
Dermal	LD50	>5,000 mg/kg (rab)
Inhalative	LC50/4 h	29.8 mg/l (rat (f+m))

99-97-8 N,N-dimethyl-p-toluidine

Oral	LD50	1,650 mg/kg (rat (f+m))
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	1.4 mg/l (rat (f+m))

97-90-5 Ethyleneglycol dimethacrylate

Oral	LD50	8,700 mg/kg (rat (f+m))
Dermal	LD50	>2,000 mg/kg (rat (f+m))

128-37-0 Butylated hydroxytoluene

Oral	LD50	>6,000 mg/kg (rat (f+m)) (OECD 401)
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1879-09-0 6-tert-butyl-2,4-xylenol

Oral	LD50	910 mg/kg (rat (f+m)) (OECD 401)
Dermal	LD50	<200 mg/kg (rabbit) (OECD 402)

2440-22-4 2-(2H-benzotriazol-2-yl)-p-cresol

Oral	LD50	10,000 mg/kg (rat (f+m))
Inhalative	LC50/4 h	0.59 mg/l (rat (f+m))

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
- **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:**

99-97-8 N,N-dimethyl-p-toluidine	
LC50/96h	46 mg/L (fish)

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3290-92-4 Propylidynetrimethyl trimethacrylate

LC50/96h (dynamic) >1 mg/L (Oncorhynchus mykiss) (OECD Guideline 203 (Fish, Acute Toxicity Test))

128-37-0 Butylated hydroxytoluene


EC50/48h (static) 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:**
Harmful to aquatic organisms
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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.

14 Transport information

- **UN-Number**
- **ADG, IMDG, IATA** UN1247
- **UN proper shipping name**
- **ADG** 1247 METHYL METHACRYLATE MONOMER, STABILIZED
- **IMDG, IATA** METHYL METHACRYLATE MONOMER, STABILIZED
- **Transport hazard class(es)**
- **ADG**
- 
- **Class** 3 (F1) Flammable liquids.

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· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· Packing group	II
· ADG, 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	C
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADG	
· 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, , II

15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

80-62-6 Methyl methacrylate

S6+APPENDIX C

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

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- **Hazard pictograms**



GHS02 GHS07

- **Signal word** *Danger*

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

*Methyl methacrylate**N,N-dimethyl-p-toluidine**6-tert-butyl-2,4-xyleneol**Ethyleneglycol dimethacrylate**2-(2H-benzotriazol-2-yl)-p-cresol*

- **Hazard statements**

*Highly flammable liquid and vapour.**Harmful if inhaled.**Causes skin irritation.**May cause an allergic skin reaction.**May cause respiratory irritation.*

- **Precautionary statements**

*Keep away from heat/sparks/open flames/hot surfaces. No smoking.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**Store locked up.**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.*

- **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*

- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Other information

- **Relevant phrases**

*H225 Highly flammable liquid and vapour.**H227 Combustible liquid.**H301 Toxic if swallowed.**H302 Harmful if swallowed.**H310 Fatal in contact with skin.**H311 Toxic in contact with skin.**H315 Causes skin irritation.**H317 May cause an allergic skin reaction.**H319 Causes serious eye irritation.**H331 Toxic if inhaled.**H335 May cause respiratory irritation.**H373 May cause damage to organs through prolonged or repeated exposure.*

- **Department issuing SDS:** *Regulatory affairs*

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

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· **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)

VOC: Volatile Organic Compounds (USA, EU)

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. 4: Flammable liquids – Category 4

Acute Tox. 3: Acute toxicity - oral – Category 3

Acute Tox. 4: Acute toxicity - oral – Category 4

Acute Tox. 2: Acute toxicity - dermal – Category 2

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

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

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

· **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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