

## Safety Data Sheet

### Section 1: Identification of the material and the Supplier

<b>Product identifier</b>	<b>Ivocron Cold Liquid</b>
Product use	Crowns and bridges material
<b>Distributor information</b>	
Company identification	<b>Ivoclar Vivadent (NZ) Ltd</b>
Address	12 Omega Street, Rosedale, Auckland, New Zealand
Telephone Number	0508 486 252
Emergencies within New Zealand	<b>0800 764 766 (National Poison Control Centre)</b>

### Section 2: Hazards Identification

Product is classified as hazardous according the HSNO (Minimum Degrees of Hazard) Regulations 2001

NZ Group Standard & Dental Products (Flammable)  
EPA Approval Code HSR002556



Flammable



Irritant



Chronic

Hazard Classification	Hazard Code	Hazard Statement
3.1B	H225	Highly flammable liquid and vapour
6.1D (Inhal)	H332	Harmful if inhaled
6.1E (Oral)	H303	May be harmful if swallowed
6.3A	H315	Causes skin irritation
6.4A	H319	Causes serious eye irritation
6.5B	H317	May cause an allergic skin reaction
6.9B	H373	May cause damage to organs through prolonged or repeated exposure
9.1D	H401n/H402o/H413p	Toxic to aquatic life/Harmful to aquatic life/May cause long lasting harmful effects to aquatic life

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a 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/protective clothing/eye protection/face protection.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove 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.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P321	Specific treatment see Section 4. First Aid Measures.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before re-use.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use CO <sub>2</sub> , sand, extinguishing powder for extinction.
<b>Storage Code</b>	<b>Storage Statement</b>
P403 + P235	Store in a well-ventilated place. Keep cool.
<b>Disposal Code</b>	<b>Disposal Statement</b>
P501	Dispose of according to Local Regulations.

### Section 3: Composition/Information on Ingredients

Chemical characterization	Mixtures.
Description	Mixture of substances listed below with non-hazardous additions.

#### Dangerous components:

CAS: 80-62-6 EINECS: 201-297-1	methyl methacrylate Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
CAS: 97-90-5 EINECS: 202-617-2	ethylene glycol dimethacrylate Skin Sens. 1, H317; STOT SE 3, H335	3-<10%
CAS: 109-16-0	triethylene glycol dimethacrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	3-<10%

Additional information	For the wording of the listed risk phrases refer to section 16.
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### Section 4: First Aid Measures

Description of first aid measures:	
General information	Immediately remove any clothing soiled by the product.
After inhalation	Supply fresh air; consult doctor in case of complaints. In case of unconsciousness place patient stably in side position for transportation.
After skin contact	Immediately rinse with water.
After eye contact	Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing	Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.
Most important symptoms and effects, both acute and delayed	No further relevant information available.
Indication of any immediate medical attention and special treatment needed	No further relevant information available.

### Section 5: Fire Fighting Measures

Extinguishing media:	
Suitable extinguishing agents	CO <sub>2</sub> , sand, extinguishing powder. Do not use water.
For safety reasons unsuitable extinguishing agents	Water with full jet
Special hazards arising from the substance or mixture	No further relevant information available.

Advice for firefighters:	
Protective equipment	No special measures required.
Additional information	Cool endangered receptacles with water spray.


**Section 6: Accidental Release Measures**

Personal precautions, protective equipment and emergency procedures	Wear protective equipment. Keep unprotected persons away.
Environmental precautions	Do not allow to enter sewers/surface or ground water.
Methods and material for containment and cleaning up	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation. Do not flush with water or aqueous cleansing agents.
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**

Precautions for safe handling	Only adequately trained personnel should handle this product. Ensure good ventilation/exhaustion at the workplace.
Information about fire and explosion protection	Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
Conditions for safe storage, including any incompatibilities:	
Storage:	
Requirements to be met by storerooms and receptacles	Store only in the original receptacle. Store in a cool location.
Information about storage in one common storage facility	Store away from oxidizing agents.
Further information about storage conditions	Store receptacle in a well ventilated area. Keep container tightly sealed.
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.						
Control parameters:							
<table border="1"> <tr> <th colspan="2">Ingredients with limit values that require monitoring at the workplace</th> </tr> <tr> <th colspan="2">80-62-6 methyl methacrylate</th> </tr> <tr> <td>WEL</td> <td>Short-term value: 416 mg/m<sup>3</sup>, 100 ppm Long-term value: 208 mg/m<sup>3</sup>, 50 ppm</td> </tr> </table>		Ingredients with limit values that require monitoring at the workplace		80-62-6 methyl methacrylate		WEL	Short-term value: 416 mg/m <sup>3</sup> , 100 ppm Long-term value: 208 mg/m <sup>3</sup> , 50 ppm
Ingredients with limit values that require monitoring at the workplace							
80-62-6 methyl methacrylate							
WEL	Short-term value: 416 mg/m <sup>3</sup> , 100 ppm Long-term value: 208 mg/m <sup>3</sup> , 50 ppm						
Additional information	The lists valid during the making were used as basis.						
Exposure controls:							
Personal protective equipment:							
General protective and hygienic measures	Usual hygienic measures for dental practice. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/aerosols. Avoid contact with skin.						
Respiratory protection	Use suitable respiratory protective device in case of insufficient ventilation. Filter AX.						
Protection of hands	 <p>Protective gloves.</p>						

The glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to missing tests not recommendation to the glove material can be given for the product/the preparation/the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also the 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.

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable

Butyl rubber, BR.

Not suitable are gloves made of the following materials

Commercial medical gloves do not provide protection against the sensitizing effect of methacrylates.

Eye protection



Tightly sealed goggles.

### Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties:

General Information:

Appearance:

Form	Fluid
Colour	Colourless
Odour	Pungent
Odour threshold	Not determined
pH-value	Not determined

Change in condition:

Melting point/Melting range	-48 °C
Boiling point/Boiling range	101 °C
Flash point	10 °C
Ignition temperature	430 °C
Self-igniting	Product is not self igniting
Danger of explosion	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower	2.1 Vol %
Upper	12.5 Vol %
Vapour pressure at 20 °C	47 hPa
Density at 20 °C	0.943 g/cm <sup>3</sup>
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined

Solubility in/Miscibility with water at 20 °C 1.6 g/l

Partition coefficient (n-octanol/water)	Not determined
Viscosity:	
Dynamic	Not determined
Kinematic	Not determined
Other information	No further relevant information available

### Section 10: Stability and Reactivity

Reactivity	No further relevant information available.
Chemical stability	Stable under normal handling and storage conditions.
Thermal decomposition/ conditions to be avoided	No decomposition if used according to specifications.
Possibility of hazardous reactions	Forms explosive gas mixture with air. Reacts with strong oxidizing agents. Exothermic polymerization.
Conditions to avoid	No further relevant information available.
Incompatible materials	No further relevant information available.
Hazardous decomposition products	None under normal conditions of storage and use.

### Section 11: Toxicological Information

Information on toxicological effects:

Acute toxicity:

#### LD/LC50 values relevant for classification

#### 80-62-6 methyl methacrylate

Oral	LD50	7872 mg/kg (rat)
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Primary irritant effect:

On the skin	Irritant to skin and mucous membranes.
On the eye	No irritating effect.
Sensitization	Sensitization possible through skin contact.
Additional toxicological information:	No further relevant information available.

### Section 12: Ecological Information

Toxicity:	
Aquatic toxicity	No further relevant information available.
Persistence and degradability	No further relevant information available.
Bio accumulative potential	No further relevant information available.
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 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.

### Section 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.

#### Section 14: Transport Information

UN Number	1247
DG Proper Shipping Name	Methyl Methacrylate Monomer
DG Class and subsidiary risk	Class 3 Highly flammable
Packing group	II
Hazchem code	3(Y)E
Dangerous goods segregation	This product is classified as Dangerous Goods Class 3, packing group II. Please consult NZS 5433 Safe Transport of Dangerous Goods for more information.



#### Section 15: Regulatory Information

NZ Group Standard & EPA Approval Code	Dental Products (Flammable) HSR002556
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HSNO Controls:

Trigger quantities for this substance:

	Trigger Quantity
Approved Handler	Any quantity in a situation where vapour - air mixtures could ignite *Registered dentists are deemed approved handlers when using as finished formed medicines
Location Certificate	100 L (>5 L), 250 L (<5 L); 50 L open
Tracking Trigger Quantities	Not applicable
Signage Trigger Quantities	250 L (liquid) / kg (solid)
Emergency Response Plan Trigger Quantities	1,000 L (liquid) / kg (solid)

#### 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.

This document has been compiled by Ivoclar Vivadent Ltd on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to Ivoclar Vivadent (NZ) Ltd by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While Ivoclar Vivadent (NZ) Ltd has taken all care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Ivoclar Vivadent (NZ) Ltd accepts no liability or any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS. The information herein is given in good faith, but no warranty, express or implied is made.

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