

Material Safety Data Sheet Cover-Sheet – This page provides additional New Zealand specific information for this product and must be read in conjunction with the Safety Data Sheet (SDS) attached

Product Name: Vertex Cold-Curing Acrylic liquid

Manufacturer: Vertex-Dental B.V.

SDS Expiry: Current SDS supplied by Manufacturer as at June 2021

Supplier Details: Henry Schein New Zealand
23 William Pickering Drive, Albany
PO Box 101 140, North Shore, Auckland 0745
Ph. 0800 808 855
www.henryschein.co.nz

Emergency Contacts: Poisons/Hazardous Chemical Info Centre –
0800POISON/0800764766 (24 Hours)
Phone 111 for Fire, Ambulance or Police

HSNO Class/Category: 3 / 6

HSNO Group Standard: Dental Products Flammable Group Standard 2020 HSR002556

Statements/Pictograms: As per attached Safety Data Sheet (SDS)

Date Prepared: This coversheet was prepared – June 2022

This SDS coversheet has been produced by Henry Schein NZ and has been prepared in accordance with NZ EPA advice on making overseas SDS compliant to HSNO Act. The above information is based on the present state of our knowledge of the product at the time of publication. It is given in good faith, no warranty is implied with respect to the quality or the specifications of the product. Users must satisfy that the product is entirely suitable for their purpose. The SDS and this coversheet may be revised from time to time, please ensure you have a current copy.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: Vertex Cold-Curing Acrylic liquid

Address/Phone no.: Vertex-Dental B.V.
P.O.Box 10
3700 AA Zeist
The Netherlands
info@vertex-dental.com

Emergency Phone No.: +31 30 6976749 (only available during office hours)

Local Contact Details:

Local Emergency Phone No.:

Intended Use: Monomer based on Methyl methacrylate for manufacturing of dental prosthesis, expanding or repairing dental prosthesis, manufacturing of dental regulators and individually formed impression trays.

|| Synonyms: Vertex Castapress, Vertex Castavaria, Vertex Implacryl Cold, Vertex Self Curing, Vertex Orthoplast, Vertex Orthoplast LP, Vertex Trayplast, Vertex TCA, Jet Denture Repair, J-Cryl+ Rapid Repair.

2. HAZARDS IDENTIFICATION

EC Classification: HIGHLY FLAMMABLE AND IRRITANT



Highly flammable.

Irritating to respiratory system and skin. May cause sensitisation by skin contact. High atmospheric concentrations may lead to irritation of the respiratory tract and anaesthetic effect. Repeated and/or prolonged contact may cause dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Monomer based on methacrylic acid methylester with low levels of stabiliser, crosslinker and accelerator.

HAZARDOUS INGREDIENT(S)	% w/w	CAS No.	EC No.	EC Classification
Methyl methacrylate	> 95	80-62-6	201-297-1	F, Xi, R11 R37/38 R43
Ethyleneglycol dimethacrylate	< 5	97-90-5	202-617-2	Xi, R37 R43

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For full text of R phrases see section 15.

4. FIRST AID MEASURES

- Inhalation: Remove patient from exposure, keep warm and at rest. Obtain immediate medical attention.
- Skin Contact: Remove contaminated clothing. Wash skin immediately with water. If symptoms (irritation or blistering) occur obtain medical attention.
- Eye Contact: Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. Obtain immediate medical attention.
- Ingestion: Do not induce vomiting. Wash out mouth with water and give 200-300 ml to drink. Obtain medical attention.

Further Medical Treatment

Symptomatic treatment and supportive therapy as indicated.

5. FIRE-FIGHTING MEASURES

Highly flammable.

May polymerise on heating. Sealed container may rupture explosively if hot.

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|-------------------------------------|--|
| Suitable Extinguishing media: | Powder, A.F.F.F., foam and CO ₂ . |
| Unsuitable Extinguishing media: | Direct jet of water. |
| Special exposure hazards: | No exposure hazards from the substance itself, combustion products, resulting gasses. |
| Fire-Fighting Protective Equipment: | A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. |
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6. ACCIDENTAL RELEASE MEASURES

Eliminate sources of ignition. Ensure suitable personal protection (including respiratory protection) during removal or spillage. Prevent entry into drains. Adsorb spillages onto sand, earth or any other suitable adsorbent material. DO NOT adsorb onto sawdust or other combustible materials. Transfer to a container for disposal or recovery. Spillages or uncontrolled discharges into watercourses must be alerted to appropriate regulatory body.

7. HANDLING AND STORAGE

7.1. HANDLING

Avoid contact with skin and eyes. Avoid inhalation of high concentrations of vapours. Use only in well ventilated areas. Material is highly flammable, it must be kept from sources of ignition. The vapour is heavier than air, beware of pots and confined spaces. Take precautionary measures against static discharges. Keep away from food, drinks and animal feed.

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7.2. STORAGE

Keep in cool, well ventilated place, separate from oxidising agents. Keep away from sources of ignition – No smoking. Keep away from heat and direct sunlight. Container may be filled for only 80%. Keep the container closed to avoid evaporation of the product.

Storage temperature: Preferably not exceeding 25°C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. EXPOSURE LIMIT VALUES

Occupational Exposure limits

SUBSTANCE	CAS No.	TWA 8 hr (mg/m ³)	TWA 8hr (ppm)
Methyl methacrylate	80-62-6	40	10

8.2. EXPOSURE CONTROLS

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

The following information is given as general guidance.

- Respirators:** Wear suitable respiratory equipment if exposed to level above the occupational exposure limit is likely. A suitable mask with filter type A may be appropriate.
- Eye Protection:** Safety spectacles/goggles
- Gloves:** Wear suitable gloves. The most appropriate glove depends on consideration of a number of factors including the physical strength of the glove, the degree of manual dexterity required, the amount of permeation through the glove material and the duration of wear. There are a wide variety of elastomeric and laminate gloves available. Common elastomeric glove material include latex (natural rubber), neoprene (polyisoprene), nitrile rubber (ABS rubber), butyl rubber, polyvinyl alcohol (PVA), polyvinyl chloride (PVC) and fluoroelastomers. Laminate gloves are made from heat sealed sheets of PVA between layers of polyethylene. In permeations tests PVA/Polyethylene laminate and supported PVA gloves performed best (note that PVA can be rendered ineffective by contact with water if the laminate layer is breached). Butyl and nitrile rubber gloves offer short-term protection. Latex surgical gloves offer little protection. Gloves should be stored correctly and changed regularly, especially if excessive exposure has occurred.
- Other:** Keep working clothes separately. Take off contaminated clothing immediately. Keep away from food, drinks and animal feed.

Environmental exposure controls

The product should not be allowed to drain in sewers. There's a severe danger of explosion.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colourless liquid
Odour:	Ester like
pH:	Not applicable
Boiling point:	100,3°C
Melting point:	-48°C
Flash point:	10°C
Flammable limits (lower) (%v/v):	2.1
Auto ignition temperature:	430°C
Explosive properties:	Not applicable
Oxidising properties:	Not applicable
Vapour pressure:	47 mbar at 20°C
Relative density:	0.94 (water = 1)
Solubility:	Miscible with most organic solvents
Water solubility:	Slightly soluble, 1.5 g/100ml at 20°C
Viscosity:	0.6 mPa•s

10. STABILITY AND REACTIVITY

10.1. CONDITIONS TO AVOID

The product is stabilised with Hydroquinone (CAS-regnr. 123-31-9). However polymerisation may occur when the expiry date and/or storage temperature is considerable exceeded.

10.2. MATERIALS TO AVOID

When heated above the flash point, flammable vapours are emitted which can mix with air and can burn or be explosive. Vapours are heavier than air and may travel to the source of ignition and flash back. Heat can cause polymerisation with rapid release of energy which may rupture the container explosively.

Incompatible materials: Polymerization catalyst, such as Peroxy or Azo compounds, strong acids, alkalis and oxidizing agents.

10.3. HAZARDOUS DECOMPOSITION PRODUCTS

When the product is used according the instructions, there will be no hazardous decomposition products. The product does not decompose up to auto ignition temperature.

11. TOXICOLOGICAL INFORMATION

According to literature:

Methyl methacrylate is in essential non-toxic, when absorbed into the body by any route. However for some few individuals it is a powerful skin sensitizer. Apart from this skin allergy, human cases of ill health caused by the product are of a low probability.

Long-term inhalation tests on rats and hamsters with exposure to concentrations from 100 to 400 ppm, did not show any chronic toxic effect. However concentrations on excess of 100 ppm volume may be irritating for some people. Handling of the product requires adequate ventilation to prevent accumulation of vapour in work areas.

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Inhalation:

Irritating to respiratory system. High atmospheric concentrations may lead to irritation of the respiratory tract, dizziness, headache and anaesthetic effects.

Skin contact:

May cause sensitisation by skin contact. Irritating to skin, Repeated and/or prolonged contact may cause dermatitis.

Eye contact:

High vapour concentration will cause irritation.

Ingestion:

Low oral toxicity, but ingestion may cause irritation of the gastrointestinal tract.

A repeated exposure to high levels produces adverse effect on the heart, lungs, liver and kidneys. Repeated exposure of animals by inhalation to levels at or above the occupational exposure level, produces adverse effect on the nasal epithelium (levels of 100 and 400 ppm). There is no reason to believe that Methyl methacrylate represents a carcinogenic or mutagenic hazard to man based upon evidence from well conducted animal studies, relevant mutagenic studies and adequate epidemiology studies in relevant cohorts. Recent studies in animals have shown that high exposures do not produce embryo or foetotoxic or teratogenic effects in the presence of maternal toxicity.

None of these effects are likely to occur in humans, provided exposure is maintained at or below occupational exposure limit.

Methyl methacrylate

Acute oral rat: LD₅₀ = 7872 mg/kg
Acute skin rabbit: LD₅₀ = 9400 mg/kg
Acute inhalation rat: LD₅₀ = 7093 ppm / 4 hours

Ethyleneglycol dimethacrylate

Acute oral rat: LD₅₀ = 3300 mg/kg
Skin irritation rabbit: Not irritating
Eye irritation rabbit: Not irritating

12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution

Liquid with high volatility. The product is soluble in water. The product has low potential for bioaccumulation. The product is predicted to have high mobility in soil.

Persistence and Degradation

Readily biodegradable.
Chemical Oxygen Demand (COD): 88% (28 days)
Inherent biodegradation:
Dissolved Organic Carbon Removal (DOC removal): > 95% (28 days)

Toxicity

Low toxicity to fish.
LC50 (Fish) (typically) > 100 mg/l
LC50 (fathead minnow) (96 hours) (static) 130 mg/l

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Harmful to aquatic invertebrates.
EC50 (Daphnia magna) (48 hours) 69 mg/l

Low toxicity to algae.
EC50 (selenastrum capricornutum) (96 hours) 170 mg/l
NOEC (zebra fish) (35 days) (flow through) 8,4 mg/l

Effect on Effluent Treatment

The product is substantially removed in biological treatment processes.

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with local, state or national legislation. Incinerate under approved controlled conditions, using incinerators for the disposal of Methyl methacrylate. Decontaminate empty drums before recycling.

14. TRANSPORT INFORMATION

UN No.:	1247
Proper Shipping Name	Methyl methacrylate monomer stabilised
Class	3
Packing group	II
ADR Classification Code	3
ADR HIN	339
ADR Transport Category	2
Tunnel Restriction Code	D1E

15. REGULATORY INFORMATION



EC Classification: HIGHLY FLAMMABLE AND IRRITANT

Hazard Symbol: F: Highly flammable
Xi: Irritating

Risk Phrases: R11: Highly flammable.
R37/38: Irritating to eyes.
R43: May cause sensitisation by skin contact.

High atmospheric concentrations may lead to irritation of the respiratory tract and anaesthetic effects.
Repeated and/or prolonged contact may cause dermatitis.

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16. OTHER INFORMATION

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material

designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

The TWA-values mentioned in this datasheet are based on the invalid MAC-values in The Netherlands. Other countries may apply other MAC-values.

Glossary

TWA: Time Weighted Average

Places marked by || have been amended form the last version.

This is the end of MSDS ID: CC-L-03-UK.