

SAFETY DATA SHEET
SELF-CURING ACRYLIC RESIN VERACRIL®/OPTICRYL® POUR, O-CRYL®
DPDDFS-027

1. IDENTIFICATION OF PRODUCT



- 1.1 Chemical name: Poly methylmethacrylate.
- 1.2 Generic name: Poly methylmethacrylate.
- 1.3 Synonyms: PMMA, acrylic resin.
- 1.4 Recommended use and product use restrictions: Used for the elaboration of dental prostheses. It must be used by trained personnel and only for dentistry and dental laboratory use.
- 1.5 Emergency number: In case of emergency contact the Safety and Health at Work Coordination at the following numbers (+57 4) 403 87 60, ext. 1304, 1306.

2. IDENTIFICATION OF HAZARDS

1.1 GHS Classification:

Health	Environment	Physical
Ocular irritation Category 2B	Not data established	Not data established
Respiratory or dermal sensitization Category 1		

1.2 GHS Labeling:

Symbol	Signal word	Danger indication
	Attention	Cause ocular irritation.
	Danger	May produce allergy symptoms, asthma or respiratory difficulties if is inhaled.

- 1.3 Precautionary indication: It can cause irritation to the eyes, skin and respiratory tract.
- 1.4 Appearance in emergencies: It can cause irritation to the eyes, skin and respiratory tract.
- 1.5 Potential adverse effects: Low oral toxicity, it may cause irritation in the eyes if it is dispersed in the air; there is not any knowledge of skin irritation cases, there is no evidence of adverse effects.

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Class	Page	Approved by:	Update:	Version
E	1 of 7	Technical Director of Medical Devices	2020-03-01	01

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1.6 NFPA:



1.7 OSHA regulatory state: This material is considered dangerous by Risk Communication Standard OSHA (29 CFR 1910.1200).

3. INFORMATION ABOUT COMPOSITION

HAZARDOUS COMPONENTS		
Common name	Concentration	CAS Number
N.A	N.A	N.A

NON-HAZARDOUS COMPONENTS		
Common name	Concentration	CAS Number
Polymethyl methacrylate	98-99%	9011-14-7
Pigments	1-2%	N.A

4. FIRST AID MEASURES

4.1 Emergency procedures and first aid in case of:

- Inhalation: Extract the patient from exposure; take patient to a ventilated area. Get medical attention if any effect appears.
- Contact with eyes: Wash eyes immediately with abundant water, maintaining the eyelids open by holding the eyelashes. Go to the ophthalmologist.
- Skin Contact: Wash immediately the skin with plenty of water. Take off contaminated clothing. In case of appearance of any symptom (such as irritation or blisters), see the doctor.
- Ingestion: See the doctor.

4.2 Most important symptoms/effects (acute and/or delayed): It may cause irritation in the eyes, skin and respiratory tract.

4.3 Antidote: Not applicable.

4.4 Information for doctors: Not applicable.

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Class	Page	Approved by:	Update:	Version
E	2 of 7	Technical Director of Medical Devices	2020-03-01	01

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5. FIRE FIGHTING MEASURES

- 5.1 Flammability properties: This is a low-flammable product.
- 5.2 Suitable extinction of fire: Fire can be extinguished using foam, dry powder, or CO₂
- 5.3 Unsuitable extinction of fire: Do not use water.
- 5.4 Instructions for fire extinguishing: Use special protective equipment. In long stays in the contaminated area, use an autonomous breathing equipment and adequate protective clothing. This product breaks down if heated at temperatures higher than 200 °C (392 °F). The breaking down of this product caused by combustion or overheating can produce irritant and flammable toxic vapors.
- 5.5 Firefighters' protection: Evacuate the affected area and attack the fire at a safe distance.
- 5.6 Protective equipment and firefighter's protection: Self-contained breathing apparatus and encapsulated suit should be used.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Techniques, procedures, materials and protective equipment in case of:
- Small spill: Spilled powder is slippery underfoot. If spilled, use gloves to pick it up and put it in a container for its later disposal or recuperation.
 - Large spill: Sweep away the spilled product and put it in a waste drum or in a plastic bag. Wash the slippery area with water. Avoid the spilled product to penetrate drainage channels. Uncontrolled throwing of waste of this product into waterways must be communicated to competent authorities.
- 6.2 Environmental precautions: Avoid the leaking in land and waters. In case of occur large spills or if the product pollutes lakes, rivers or seas, report to the local authorities according to local regulations.
- 6.3 Other considerations: Prevent that the waste enter in surface or underground aquifer streams.

7. HANDLING AND STORAGE

- 7.1 Handling: Beware of putting the product in contact with hot materials in order to avoid burns. Every polymer degrades at some point if there is overheating. Avoid contact with the eyes. Avoid extended contact with the skin. Avoid inhalation of high concentrations of the powder. Follow the firefighting measures. The product must be kept away from ignition sources.
- 7.2 Storage: Room temperature, dry place. Keep the product covered.

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Class	Page	Approved by:	Update:	Version
E	3 of 7	Technical Director of Medical Devices	2020-03-01	01

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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Conditions to control the exposure: Use a mask to protect yourself from powder. Also use safety glasses, and adequate face protection.

8.2 Engineering control: Adequate ventilation, air extractor and equipment for washing eyes in the products employment areas.

8.3 Personal protective equipment:

- Respiratory equipment: Wear appropriate protective gear. It is advisable to wear dust mask if the exposure levels are high.
- Eye protection: Safety goggles, full face protection shield.
- Others: Wear appropriate protective clothes. General safety and hygiene measures. Wash hands after use.

8.4 Exposure parameters:

- PEL (OSHA): Total powder 5 mg/mm³, 8 hr, TWA, breathable powder.
- TLV ACGIH: Not available.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Pearls, color according to pigmentation.
- Odor: odorless.
- Odor threshold: Data not available.
- pH: Not applicable.
- Fusion point: Data not available.
- Evaporation percentage: Not apply.
- Initial point and boiling range: Indeterminate.
- Flash point: Indeterminate.
- Evaporation rate: Not apply.
- Flammability (solid, gas): Data not available.
- Superior/inferior limit of flammability or exploding: Data not available.
- Vapour pressure: Not apply.
- Vapor density: Not apply.
- Specific gravity or density: Data not available.
- Solubility in water: Insoluble.
- N-octanol/water partition coefficient: Data not available.
- Self-ignition temperature: 300 °C (572 °F).
- Decomposition temperature: Not determined.
- Heat value: Data not available.
- Volatile organic compounds content: Data not available.
- Melting point: Not apply.

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Class	Page	Approved by:	Update:	Version
E	4 of 7	Technical Director of Medical Devices	2020-03-01	01

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- Viscosity: Not apply.
- Bulk density: Not apply.
- Volatility percentage: <1%.
- Saturated vapor concentration: Data not available.
- Molecular weight: 800.000
- Molecular formula: $(C_5O_2H_8)_n$
- Spark point: 300 °C (572 °C).

10. STABILITY AND REACTIVITY

- 10.1 Chemical stability: This product is very stable. When it is overheated or in presence of a catalyst, a new polymerization process may start again.
- 10.2 Possibility of hazardous reactions: Exothermal reaction (heat generation).
- 10.3 Conditions to avoid: Incompatibility with peroxide or azo polymer initiators, strong acids, alkalis, and oxidizing agents; also with bases, acids, and flammable solvents.
- 10.4 Incompatibility with other materials: Monomers.
- 10.5 Dangerous breaking down Products: Monomer Vapors.
- 10.6 Hazardous polymerization: Exothermic reactions (heat generation).

11. TOXICOLOGICAL INFORMATION

- 11.1 Possible routes of exposure: Respiratory, dermal and ocular.
- 11.2 Acute Toxicity:

- Inhalation: Health risks after inhalation of this product are not known. High concentrations of this powder can irritate the respiratory tract. High concentrations of vapors originated from overheating can irritate the respiratory tract.
- Skin Contact: Cases of skin irritation caused by contact with this product are not known.
- If swallowed: This product has low oral toxicity, but if swallowed, it can irritate the gastrointestinal tract.

11.3 Chronic Toxicity:

- Long-term exposure: This product has been used during many years without any evidence of adverse effects. According to different studies, there is no reason to think that polymethyl methacrylate represents a carcinogenic or mutagenic risk for people. Long-term exposures do not produce either toxic effects on embryos or fetus or teratogenic effects on pregnant mothers.

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11.4 Additional information: Data not available.

12. ECOLOGICAL INFORMATION

- 12.1 Ecotoxicity: The product has low toxicity in aquatic organisms. Low volatility solid,
12.2 Persistence and degradability: The product is non-biodegradable in the ground. There is no evidence of degradation in ground and water.
12.3 Potential of bioaccumulation: The product is hardly removed in biological treatment processes.
12.4 Mobility in soil: Low mobility.
12.5 Other adverse effects: Not available.

13. DISPOSAL CONSIDERATIONS

Recycle if it is possible. Do not throw to water sources. Observe the local regulations in force.

WARNING: Laws, regulations and local restrictions can change or be reinterpreted from one country to another and also, they can be different from the ones being into effect in Colombia. This is why considerations about waste disposal of product and its packing may differ from the ones appearing in this document.

14. TRANSPORT INFORMATION

- 14.1 Hazardous material: None.
14.2 Class of risk: None.
14.3 UN Number: Not available.
14.4 IATA Classification: Non-dangerous material.
14.5 Packing group: Non-dangerous material.
14.6 Marine pollutant (Yes/No): No.

15. REGULATORY INFORMATION

- 15.1 In Colombia: Transportation of this product must be made according to provisions of Decree 1609 of 2002 concerning road transportation of chemical and dangerous substances.
15.2 International Regulations: This product must be labeled according to directives of the CEE/Regulations on dangerous substances.

16. IMPORTANT ADDITIONAL INFORMATION

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E	6 of 7	Technical Director of Medical Devices	2020-03-01	01

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The information registered in this document is based on our current knowledge and is given in good faith, but is not given an assurance express or implicit; neither is assumed any responsibility for the incorrect use of the product. This document is prepared according to:

- Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
- Colombian Technical Norm NTC4435:2010. Transport of Merchandises. Safety Data Sheets for Materials. Preparation (NTC).

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Class	Page	Approved by:	Update:	Version
E	7 of 7	Technical Director of Medical Devices	2020-03-01	01

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