## SAFETY DATA SHEET HIGH IMPACT ACRYLIC RESINS VERACRIL®/OPTICRYL®/GOODFIT® DPDDFS-005

# 1. IDENTIFICATION OF THE PRODUCT

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- **1.1** Chemical name: Methyl methacrylate and butadiene-styrene copolymer.
- **1.2** Generic name: Methyl methacrylate and butadiene-styrene copolymer.
- **1.3** Synonyms: High impact 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 60 4) 403 87 60, ext. 1304, 1306.

#### 2. INFORMATION OF HAZARDS

2.1 GHS Classification:

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

#### 2.2 GHS Labelling:

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

- 2.3 Precautionary indications: It can cause irritation to the eyes, skin and respiratory tract.
- **2.4** Appearance in emergencies: Fine odorless powder, irritant to the eyes if it is dispersed in the air.
- **2.5** 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.
- 2.6 NFPA:

Health: 1 Flammability: 1 Reactivity: 1

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**2.7** OSHA regulatory state: This material is considered not dangerous by Risk Communication Standard OSHA (29 CFR 1910.1200).

#### 3. INFORMATION ABOUT COMPOSITION

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

NON-HAZARDOUS COMPONENTS						
Common name Concentration CAS Number						
Copolymer F - 154	> 10	N.A.				
Methyl methacrylate and butadiene-styrene copolymer.	< 90	N.A.				

## 4. FIRST AID MEASURES

4.1 Emergency procedures and first aid in case of:

- Inhalation: Remove the patient from exposure; take patient to a ventilated place. If breathing has stopped, supply rescue breathing. Get medical attention if any effect appears.
- Contact with eyes: Wash eyes immediately with abundant water, keeping the eyelids open by holding the eyelashes. Consult an ophthalmologist.
- Skin contact: Wash the skin immediately with abundant water. Remove contaminated clothes. If symptoms such as irritation or blister occur, consult the physician.
- Ingestion: Rinse the mouth with abundant water. Drink abundant water. Do not induce vomit.
- **4.2** Major symptoms and effects (acute or delayed): It may cause irritation in the eyes, skin and respiratory tract.
- **4.3** Antidote: Does not apply.
- **4.4** Information for physicians: There are not relevant data available.

## 5. FIRE FIGHTING MEASURES

- **5.1** Flammability properties: Low flammability. May decompose if heated at temperatures above 200 °C (392 °F). Combustion or thermal decomposition may develop toxic vapors, irritant and flammable.
- **5.2** Suitable extinction of fire: Fire may be extinguished with spray water, foam, dry powder or CO2.
- 5.3 Unsuitable extinction of fire: Do not use direct water jets.
- **5.4** Instructions for fire extinguishing: Special protection equipment must be used. In case of permanence in the hazardous area, autonomous breathing equipment and appropriate protective clothing must be worn.

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- **5.5** Firefighters' protection: Evacuate the affected area and attack the fire at a safe distance.
- **5.6** Protective equipment and firefighters' protection: Autonomous breathing equipment and encapsulated suit should be used.

## 6. ACCIDENTAL RELEASE MEASURES

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6.1 Techniques, procedures, materials and protective in case of:

- Small releases: Released powder may be slippery. It may be transferred manually, using gloves, to a container for its disposal or recovery.
- Large releases: Sweep and dispose in a residues drum or plastic bag. Wash the slippery area with water. Avoid penetration in sumps. Uncontrolled release in waterways must be reported to the corresponding competent authority.
- **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: Avoid residues go into ground or underground water streams.

# 7. HANDLING AND STORAGE OF PRODUCT

- **7.1** Handling: Beware of placing the product in contact with hot materials in order to avoid burning. 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 away from ignition sources.
- 7.2 Storage: Room temperature (30 °C / 86 °F maximum), dry place. Keep the product covered.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- **8.1** Conditions to control exposure: Wear dust mask, safety goggles, and facial protection.
- **8.2** Engineering controls: 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.
  - Others: Wear appropriate protective clothes. General safety and hygiene measures. Wash hands after use.
- **8.4** Exposure parameters:
  - PEL (OSHA): Total powder 5 mg/m3, 8 hours. TWA, breathable powder.
  - TLV ACGIH: Not available.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

• Appearance: Pearls.

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- Color: Different colors, according to pigments.
- Odor: Odorless.
- Odor threshold: Does not apply.
- Physical state: solid.
- pH: Does not apply
- Fusion point: data not available.
- Evaporation percentage: Does not apply.
- Boiling initial point and range: Undetermined.
- Flash point: 390 °C (734 °F).
- Evaporation rate: Does not apply.
- Flammability (solid, gas): Data not available.
- Superior/inferior limit of flammability or exploding: Data not available.
- Vapor pressure: Does not apply.
- Vapor density: Does not apply.
- Specific gravity or density: Data not available.
- Solubility in water: Negligible.
- N-octanol/water partition coefficient: Does not apply.
- Self-ignition temperature: 304°C (579 °F)
- Decomposition temperature: Undetermined.
- Heat value: Data not available.
- Content of volatile organic compounds: Data not available.
- Melting point: Data not available.
- Viscosity: Data not available.
- Density (bulk density): Data not available.
- Volatility percentage: Data not available.
- Saturated vapor concentration: Data not available.
- Molecular weight:800,000
- Molecular formula: (C<sub>5</sub>O<sub>2</sub>H<sub>8</sub>)<sub>n</sub>
- Content of volatile organic compounds (VOC): ≤1%.

#### **10. STABILITY AND REACTIVITY**

- **10.1** Chemical stability: Very stable under normal conditions. Do not heat above 280 °C (536 °F). Prolonged heating or the presence of a catalyst is likely to reinitiate polymerization.
- **10.2** Possibility of hazardous reactions: Exothermal reaction (heat generation).
- **10.3** Conditions to avoid: Incompatibility with peroxy or azo groups, strong acids, alkali, and oxidizing agents. With bases, acids, and flammable solvents.
- **10.4** Incompatibility with other materials: Monomer.
- **10.5** Dangerous breaking down products: Monomer fumes.

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**10.6** Hazardous polymerization: Exothermal reaction (heat generation).

## **11. TOXICOLOGY INFORMATION**

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**11.1** Possible routes of exposure: Respiratory, dermal and ocular.

#### 11.2 Acute toxicity:

Inhalation: Risks for inhalation are unknown. High powder concentrations may irritate the airways. High vapor concentrations due to heating operations may cause irritation of the airways. Skin contact: Irritation cases are unknown. Ingestion: Low oral toxicity, but the ingestion may cause irritation of gastrointestinal ways.

- **11.3** Chronic toxicity: long term exposure: This material has been used for many years without evidence of adverse effects. According to these studies, there is no reason to believe that polymethylmethacrylate represents a carcinogenic or mutagenic hazard for man. Neither toxic effects are produced for the embryo or fetus at high exposures, nor teratogenic effects in the presence of maternal toxicity
- **11.4** Additional information: Not available.

## 12. ECOLOGIC INFORMATION

- 12.1 Ecotoxicity: The product has low toxicity in aquatic organisms. Solid whit low volatility.
- **12.2** Persistence and degradability: There is not any evidence of degradation in soil and water. The product is non-biodegradable on the soil.
- **12.3** Potential of bioaccumulation: Has low bioaccumulation potential.
- **12.4** Mobility in soil: Has low mobility on soil.
- **12.5** Other adverse effects: There is not any additional information.

## 13. DISPOSAL CONSIDERATIONS

Recycle if it is possible. Do not dump into water sources. Follow the applicable local regulations in force.

WARNING: Local laws, regulations, and restrictions may change or be reinterpreted, and differ to national ones; therefore, the disposal considerations of the material and its packaging may vary regarding the ones set forth in this document.

## 14. TRANSPORTATION INFORMATION

- 14.1 Hazardous material: None.
- 14.2 Risk class: None.
- **14.3** UN Number: Not available.

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- 14.4 IATA classification: Non-hazardous material.
- 14.5 Packing group: None.

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14.6 Marine pollutant (Yes/No): No.

#### 15. REGULATORY INFORMATION

- **15.1** In Colombia: Transport in accordance with what is set forth in decree 1609 of 2002 about transportation of chemical and hazardous substances on roads.
- 15.2 International: Labelling as per directives of the CEE / Regulation about hazardous substances.

#### 16. OTHER IMPORTANT INFORMATION

The information registered in this document is based in 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:

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

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