Address: Cra. 53 N° 50-09
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SAFETY DATA SHEET
HIGH IMPACT ACRYLIC RESINS
DPDDFS-005

1. IDENTIFICATION OF THE PRODUCT

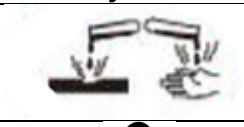
1.1 Chemical name: Methyl methacrylate and butadiene-styrene copolymer.
1.2 Generic name: Methyl methacrylate and butadiene-styrene copolymer.
1.3 Synonyms: High impact acrylic resin.
1.4 Recommended use and product use restrictions: Used for the elaboration of dental prostheses. It must be used by trained 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 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:

2.7 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**
Copolymer F - 154	> 10	N.A.
Methyl methacrylte and butadiene-styrene copolymer.	< 90	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 the skin immediately with abundant water. Remove contaminated clothes. If some symptoms appear (irritation or blisters), go to the physician.
- Ingestion: Go to the physician.

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 physicians: Not applicable.

5. FIRE FIGHTING MEASURES

5.1 Flammability properties: Low flammability.
5.2 Suitable extinction of fire: Fire can be extinguished with spray water, foam, dry powder or CO2.
5.3 Unsuitable extinction of fire: Do not use water.
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. The product can decompose if it is heated at temperatures exceeding 200 °C (392 °F). Combustion or thermal decomposition may cause toxic, irritant, and flammable fumes.

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

6.1 Techniques, procedures, and materials in case of:

- Small spills: Spilled powder can be slippery. It can be manually transferred using gloves, to a container for its disposal or recovery.
- Large spills: Sweep and dispose in a residues drum or plastic bag. Wash the slippery area with water. Avoid drainage to sumps. Uncontrolled discharge on water resources must be notified 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 entering into shallow or underground aquifer streams.

7. HANDLING AND STORAGE OF PRODUCT

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.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Conditions to control the 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 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/m3, 8 hr. TWA, breathable powder.
- TLV ACGIH: Not available.

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9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Pink color powder.
- Odor: Odorless.
- Odor threshold: data not available.
- Physical state: solid.
- pH: not apply.
- Fusion point: data not available
- Evaporation percentage: not apply.
- Boiling initial point and range: undefined.
- Flash point: undefined.
- Evaporation rate: Not apply.
- Flammability (solid, gas): Data not available.
- Superior/inferior limit of flammability or exploding: Data not available.
- Vapor pressure: Not apply.
- Vapor density: Not apply.
- Specific gravity or density: Data not available.
- Solubility in water: Negligible.
- N-octanol/water partition coefficient: Data not available.
- Self-ignition temperature: 300°C (572°F)
- Decomposition temperature: Not defined.
- Heat value: Data not available.
- Content of volatile organic compounds: Data not available.
- Melting point: Not apply.
- Viscosity: Data not available.
- Density (bulk density): Not apply.
- Volatility percentage: Data not available.
- Saturated vapor concentration: Data not available.
- Molecular weight:800,000
- Molecular formula: $(C_5O_2H_8)_n$
- % volatile: ≤1%.

10. STABILITY AND REACTIVITY

10.1 Chemical stability: Very stable. Extended heating or the presence of a catalyst is susceptible to restart a polymerization.

10.2 Possibility of hazardous reactions: Exothermal reaction (heat generation).

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

11. TOXICOLOGY INFORMATION

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.
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.
11.3 Additional information: Not available.

12. ECOLOGIC INFORMATION

12.1 Ecotoxicity: The product has low toxicity in aquatic organisms. Low volatility solid.
12.2 Persistence and degradability: There is not any evidence of degradation in soil and water.
12.3 Potential of bioaccumulation: The product is hardly removed in processes of biologic treatment. This product is insoluble in water.
12.4 Mobility in soil: The product is non-biodegradable in soil. Low mobility in soil.
12.5 Other adverse effects: Not available.

13. DISPOSAL CONSIDERATIONS

Recycle if it is possible. Do not throw 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

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14. TRANSPORTATION INFORMATION

14.1 Hazardous material: None.
14.2 Risk class: None.
14.3 UN Number: Not available.
14.4 IATA classification: Non-hazardous material.
14.5 Packing group : Non-hazardous material
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: Labeled under the guidelines of the CEE / Regulation on 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.