# PRODUCT IDENTIFICATION

## Chemical name: Not applicable.

## Generic name: 3D resin for printing surgical guides.

## Synonyms: Stereolithography resin, DLP resin, LCD resin.

## Recommended use and restrictions of product: Product for manufacturing surgical guides used in guided dental implant surgeries. This product is biocompatible provided that the instructions are followed and the equipment indicated in the instructions for use is used. This product should not be used for purposes other than those indicated in the technical data sheet and the instructions for use.

## Emergency number: In case of emergency, contact the Occupational Health and Safety coordination at (57 60 4) 403 87 60, ext. 1304, 1306.

# HAZARDS IDENTIFICATION

## GHS Classification:

|  |  |  |
| --- | --- | --- |
| **Health**  | **Environmental** | **Physical** |
| Corrosion / Skin irritation / Category 2 | Acute toxicityCategory 1Chronic toxicityCategory 1 | Not applicable |
| Serious eye damage / Eye irritation / Category 2 |
| Skin sensitization / Category 1 |
| Toxic for reproduction / Category 2 |

## GHS Labeling:

| **Symbol** | **Signal word** | **Hazard indication** |
| --- | --- | --- |
|  | Attention | H317: May cause an allergic skin reaction.H319: Causes serious eye irritation. |
|  | Attention | H400: "Very toxic to aquatic life.H410: "Very toxic to aquatic life with long lasting effects. |

## Precautionary indications:

## P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P273: Avoid release to the environment.

## P280: Wear protective gloves/protective clothing/eye protection/face protection.

## P302+P352: IF ON SKIN: Wash with plenty of water.

## P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

## P362+P364: Take off contaminated clothing and wash it before reuse.

## Appearance in case of emergency: None.

## Potential adverse health effects: This product has no negative health implications under normal conditions of use, handling, and storage.

## NFPA Classification: Not applicable.

## OSHA regulatory status: Non-dangerous.

# INFORMATION ABOUT COMPOSITION

| **HAZARDOUS COMPONENTS** |
| --- |
| **Common name** | **Concentration** | **CAS Number** |
| Methacrylic oligomers and monomers | >95% | Not applicable |
| Phosphine oxides | <5% | Not applicable |

| **NON-HAZARDOUS COMPONENTS** |
| --- |
| **Common name** | **Concentration** | **CAS Number** |
| Not applicable | Not applicable | Not applicable |

# FIRST-AID MEASURES

## Emergency procedures and first aid in case of:

* Inhalation: Move to a fresh-air zone. Seek medical attention immediately if irritation and prolonged discomfort occurs.
* Contact with eyes: Immediately wash with plenty of water at least during ten minutes. If the discomfort persists, consult an ophthalmologist immediately.
* Contact with skin: Wash with plenty of water and soap. If irritation or swelling occurs, consult a physician immediately.
* Ingestion: Rinse the mouth and drink sufficient water. Do not induce vomit. Get medical attention.

## Major symptoms/effects (acute and/or delayed):

* Inhalation: Increased concentrations of vapor may cause irritations of the respiratory system.
* Contact with eyes: Direct contact with the material in the eyes may cause irritations and discomfort with burning and itching sensations.
* Contact with skin: Prolonged exposures may produce irritation, swellings, itching, or dryness.
* Ingestion: Information not available.

## Antidote: Not applicable.

## Information for physicians: Not applicable

# FIREFIGHTING MEASURES

## Flammability properties: Non-flammable product.

## Suitable extinction of fire: CO2 or chemical extinguishing powder to combat larger fires with waterproof foam or alcohol resistant foam.

## Unsuitable extinction of fire: Water may be an ineffective extinguisher agent in this case.

## Instructions for fire extinguishing: Standard procedures for Class A fires.

## Firefighter’s protection: Combustion of the product may release toxic vapors. Closed containers that hold the product may break violently.

## Protective equipment and firefighter’s protection: Wear normal clothes to combat fire, a fire kit (BS EN 469), gloves (BS EN 659) and boots (HO A29 and A30 specification) in combination with a self-contained breathing apparatus for compressed air of open circuit positive pressure (BS EN 137).

# ACCIDENTAL RELEASE MEASURES

## Techniques, procedures, materials, and protective equipment in case of:

* Small spills: Clean the area manually using absorbent paper. Dispose of the contaminated paper as per the internal chemical waste disposal provisions. Safety goggles and gloves must be worn to do this.
* Large spills: Use a plastic spatula or water broom to push the spill towards a disposable container. Clean the remainder with alcohol and absorbent cloths.

## Environmental precautions: Contain the spill in order to avoid its release through sewers and Canals. Avoid contamination of water bodies.

## Other considerations: Contaminated disposable material used to clean up spills, must be disposed of in accordance with the established provisions.

# HANDLING AND STORAGE

## Handling: Precautions for safe handling should be taken before handling the product, see all other sections of this Safety Data Sheet. Avoid leakage of the product into the environment. Do not eat, drink, or smoke while handling.

## Storage: Store the product sealed before and after its use in dry, fresh facilities, without direct exposure to any type of light. Keep the product away from ignition sources. Avoid storage near foods and drinks.

# EXPOSURE CONTROLS AND PERSONAL PROTECTION

## Conditions to control exposure: Do not consume foods or drinks nor smoke in the job site.

## Engineering controls: Appropriate conditions of venting or extraction must be ensured in order to avoid as much as possible exposure to vapors. Avoid work areas with porous walls and floors.

## Personal protective equipment: Wear protective elements such as gloves, gown, and eye protection goggles when handling the product. In case of scarce ventilation in the area, the use of a mouth cover or mask with respiratory filter is recommended.

## Exposure parameters: Not available.

# PHYSICAL AND CHEMICAL PROPERTIES OF THE PRODUCT

* Appearance: Translucent viscous liquid, slightly blue.
* Odor: Acrylic odor.
* Odor threshold: Not available.
* Physical status: Liquid.
* pH: Not available .
* Freeze or fusion point: Not available.
* Evaporation percentage: Not available.
* Initial point and boiling range: Not available.
* Flash point: >100 °C (>212 °F).
* Evaporation rate: Not available.
* Flammability (solid gas): Not available.
* Upper/lower flammability or explosion liquid: Not available.
* Vapor pressure: Not available.
* Vapor density: Not available.
* Specific gravity or relative density: Not available.
* Water solubility: Insoluble.
* Partition coefficient n-octanol/water: Not available.
* Self-ignition temperature: Not available.
* Decomposition temperature: Not available.
* Heat value: Not available.
* Particle size: Not available.
* Volatile organic compounds content: Not available.
* Softening point: Not available.
* Pour point: Not available.
* Viscosity: 350 – 450 cP.
* Apparent density (bulk density): 1,1 g/cm3.
* Volatility percentage: Not available.
* Saturated vapor concentration: Not available.
* Molecular weight: Not available.
* Molecular formula: Not available.
* Other: Not available.

# STABILITY AND REACTIVITY

* 1. Chemical stability: The product is stable under normal conditions of storage and handling.
	2. Possibility of hazardous reactions: It reacts in the presence of strong oxidizing agents, alkaline materials, and strong acids.
	3. Conditions to avoid: Exposure to ultraviolet and/or sunlight. Keep the product in the appropriately closed container, away from any exposure to light.
	4. Incompatibility with other materials: Strong acids, strong alkalis, organic peroxides, and hydro peroxides.
	5. Hazardous decompositions products: Not available
	6. Hazardous polymerization: Not available

# TOXICOLOGICAL INFORMATION

* 1. Possible routes of exposure: Respiratory, cutaneous, and digestive.
	2. Acute toxicity: No data available.
	3. Chronic toxicity: No data available.
	4. Additional information: No data available.

# ECOLOGICAL INFORMATION

## Ecotoxicity: There are not collected data to support this item. However, discarding large amounts of the product in a liquid state to water sources can be harmful to the ecosystem.

## Persistence and degradability: Not available.

## Bioaccumulation potential: Not available.

## Mobility in soil: Not available.

## Other adverse effects: Not available.

# DISPOSAL CONSIDERATIONS

Do not discard the product in water sources and sewers. This product should not be disposed of on floors or subsoils. Dispose this product in accordance with the local regulations for residues management. Disposal must be done through an authorized waste management company, according to the national and local regulations.

Solid waste may be suitable for disposal in a licensed landfill and must be recovered or disposed of in accordance with national waste management regulations.

WARNING: Law, regulations, and local restrictions can change or be reinterpreted from one country to another and also, they can be different form 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.

# TRANSPORT INFORMATION

* 1. Hazardous material: Non-hazardous material.
	2. Class of risk: None.
	3. UN Number: UN3082.
	4. IATA Classification: Not applicable.
	5. Packaging group: None.
	6. Marine contaminant (yes/no): Yes.

# REGULATORY INFORMATION

## In Colombia: No component listed or revise the current local regulations.

## International: No component listed or revise the current local regulations.

# OTHER IMPORTANT INFORMATION

The information in this document is based on our current knowledge and it 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 product is prepared according to:

This document is prepared in accordance with:

* Globally Harmonized System of Classification and Labelling of Chemicals – GHS.
* Colombian Technical Standard NTC 4435:2010. Merchandise Transport. Safety Data Sheets for Materials. Preparation.