



## CHEMICAL RESISTANCE P.M.M.A.

CHEMICAL PRODUCT	RESISTANCE
Accumulator acid	+
Chromic acid up to 10 %	o
Hydrofluoric acid up to 20 %	+
Phosphoric acid up to 10 %	+
Nitric acid up to 10 %	+
Hydrochloric acid	+
Sulphuric acid up to 10 %	+
Sulphurous acid up to 5%	+
Ammonia water	+
Potassium hydroxide 40 %	+
Sodium hydroxide 40 %	+
Soapsuds	+
Soda solution	+
Metallic salts and metallic salt solution	+
Ammonia	+
Bromine vapour	o
Chlorine vapour	o
Carbon monoxide	+
Carbon dioxide	+
Coal gas	+
Methane	+
Ozone	+
Oxygen	+
Sulphur dioxide	+
Hydrogen sulphide	+
Nitrogen monoxide	+
Nitrogen dioxide	+
Acetone	-
Ethyl acetate	-
Ethyl ether	-
Ethyl alcohol up to 20 %	+
Ethyl alcohol concentrated	-
Ethyl butyrate	-
Ethyl chloride	-
Amyl acetate	-
Aniline	-

CHEMICAL PRODUCT	RESISTANCE
Benzene, aliphatic hydrocarbons	+
Benzol	-
Chloroform	-
Diacetone alcohol	-
Diamyl phthalate	o
Diamyl glycol	+
Diethylene glycol	+
Dibutyl phthalate	-
Dioxan	-
Glycerine	+
Glycol	+
Heptane	+
Hexane	+
Isopropyl alcohol	o
Cresol	-
Varnish thinner	-
Methyl ethyl ketone	-
Perchlorethylene	o
Petroleum ether	+
Ethylene oxide	-
Petroleum	o
Phenols	-
Carbon disulphide	-
Turpentine	+
Turpentine substitute (white spirit)	o
Carbon tetrachloride	-
Tetralin	-
Toluene	-
Benzol-free motor-fuel mixture	+
Motor-fuel mixture containing benzol	-
Triethyl amine	+
Xylene	-
Formic acid	-
Butyric acid up to 5 %	+
Acetic acid up to 10 %	+
Acetic acid concentrated	-
Lactic acid up to 20 %	o
Tartaric acid up to 20 %	+
Citric acid up to 20 %	+



## CHEMICAL RESISTANCE P.M.M.A.

CHEMICAL PRODUCT	RESISTANCE
Polishing wax	○
Diesel oil	+
Minerals oils	+
Vegetable oils and fats	+
Animal oils and fats	+
Transformer oil	+
Pure benzine	+
Chlorine water	+
Spot-removing liquid	-
Formalin	+
Carbolic acid	-
Petroleum	○
Aqueous ammonia	+
Soap suds	+
Soda solution	+
Spirits	-
Turpentine	+
Turpentine substitute (white spirit)	○
Hydrogen peroxide up to 40 %	+
Hydrogen peroxide over 40 %	○

CHEMICAL PRODUCT	RESISTANCE
Beer	+
Fruit juices	+
Coffee	+
Camomille extract	+
Liqueurs	○
Milk	+
Mineral water	+
Chocolate	+
Table vinegar	+
Edible oil	+
Water	+
Wine	+
Photographic developing solutions	+
Galvanizing solutions	+
Pure oil paints	+
Gum, not containing softener	+
Gum containing softener	-
Neoprene	+
PVC soft	-
UHU adhesives	-

### Legend :

- + **Resistant** No visible change in test specimen surfaces
- **Conditionally resistant** Visible change in test specimen surfaces, such as swelling, cracking etc.
- **Not resistant** Partial or complete dissolution of test specimens, breaking



# Gammacril<sup>®</sup>

---

## Product Safety Data Sheet

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

---

**Product Name:** “GAMMACRIL<sup>®</sup>” CAST ACRYLIC RODS

---

**Address / Phone No.:** GAMMACRIL s.r.l.  
Via Ticino 76  
20014 Nerviano (MI) - ITALY  
+390331415425

**Emergency Phone No.:** +390331415425

---

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

#### PRODUCT DESCRIPTION

Acrylic rods based on acrylic polymer of methylmethacrylate.

This data sheet covers the standard grades of “GAMMACRIL<sup>®</sup>” Cast Acrylic Rods, both clear and colours.

#### HAZARDOUS INGREDIENT(S)

No classifiable hazardous ingredient(s).

---

### 3. HAZARDS IDENTIFICATION

Low toxicity under normal conditions of handling and use.

---

### 4. FIRST-AID MEASURES

**Inhalation:** Remove patient from exposure. Obtain medical attention if ill effects occur.

**Skin Contact:** Wash skin with soap and water. Molten material can cause severe burns. Do not try to peel molten polymer from the skin. Cool rapidly with water. Obtain medical attention.

**Eye Contact:** Remove particles by irrigating with eye wash solution or clean water, holding the eyelids open. Obtain medical attention.

**Ingestion:** Do not induce vomiting. Wash out mouth with water. Obtain medical attention if ill effects occur.

#### Further Medical Treatment

Symptomatic treatment and supportive therapy as indicated.

---

---

**Product Name: "GAMMACRIL®" CAST ACRYLIC RODS**

---

## **5. FIRE – FIGHTING MEASURES**

Combustible but not readily ignited.

Extinguishing Media: Water spray, foam, dry powder or CO2.

Incompatible Materials: None known.

Fire Fighting Protective Equipment: A self contained breathing apparatus and full protective clothing should be worn in fire conditions.

---

## **6. ACCIDENTAL RELEASE MEASURES**

Pick up and if necessary throw into waste drums or plastic bags.

---

## **7. HANDLING AND STORAGE**

### **7.1 HANDLING**

Extra care should be taken to prevent burns from contact with hot material.  
Unlikely to represent a dust hazard under normal handling conditions.

### **Process Hazards**

During thermal processing and/or mechanical processing with chip removal machining, suction is necessary localized on the machinery.

### **7.2 STORAGE**

"GAMMACRIL®" Cast Acrylic Rods are supplied in cardboard boxes. Keep boxes in a clean, cool and dry area away from heat sources. Natural ventilation is adequate.

Storage temperature: ambient.

---

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

During processing provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

The following information is given as general guidance.

Respirators: **NORMAL HANDLING:** In the unlikely event of formation of particularly high levels of dust a suitable dust mask may be appropriate.  
**THERMAL PROCESSING:** Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. A suitable mask with filter type A may be appropriate. In the unlikely event of formation of particularly high levels of vapour a self contained breathing apparatus may be appropriate.

Eye protection: Wear eye/face protection, safety spectacles during processing.

---

**Product Name: “GAMMACRIL®” CAST ACRYLIC RODS**

---

Gloves.        NORMAL HANDLING:    Not normally required.  
                  THERMAL PROCESSING: Wear thermal insulating gloves when handling hot masses.

Other:         Wear suitable protective clothing. For information regarding process hazards refer to Section 7, Handling and Storage.

**Occupational Exposure Limits**

HAZARDOUS INGREDIENT(S)	LTEL 8hr ppm	TWA mg/m <sup>3</sup>	STEL ppm	STEL mg/m <sup>3</sup>
Methyl Methacrylate CAS-No.80-62-6 ACGIH Not Classifiable as a Human Carcinogen.	50	205	100	410

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form:	rods
Colour:	clear or coloured
Odour:	odourless
Softening point (Deg C°):	85 – 100
Auto Ignition Temperature (Deg C°):	> 300
Decomposition Temperature (Deg C°):	> 350
Freezing Point (Deg C°):	Not applicable.
Pour Point (Deg C°):	Not applicable.
Initial Boiling Point (Deg C°):	Not applicable.
Boiling Point (Deg C°):	Not applicable.
Melting Point (Deg C°):	Not applicable.
Flash Point (Deg C°):	Not applicable
Flammable Limits:	Not applicable.
Explosive Properties:	Not applicable.
Oxidising Properties:	Not applicable.
Vapour Pressure (Pascals):	Not applicable.
PH (Value):	Not available.
Solubility (Water):	Practically insoluble.
Solubility (Other):	soluble in: organic solvents.
Specific Gravity:	1.19

---

**10. STABILITY AND REACTIVITY**

Hazardous Reactions:	None known.
Hazardous Decomposition Product(s):	Methyl methacrylate.

---

**11. TOXICOLOGICAL INFORMATION****Inhalation**

Unlikely to be hazardous by inhalation. High concentrations of vapour from hot operations may be harmful, cause irritation of the respiratory tract and slight narcotic effects.

---

**Product Name:**      **“GAMMACRIL®” CAST ACRYLIC RODS**

---

**Skin Contact**

Unlikely to cause skin irritation.

**Eye contact**

Dust may cause irritation.

**Ingestion**

Low oral toxicity.

**Long Term Exposure**

This material has been in use for many years with no evidence of adverse effects.

---

**12. ECOLOGICAL INFORMATION**

**Environment Fate and Distribution**

Solid with low volatility. The product is essentially insoluble in water. The product has low potential for bioaccumulation. The product is predicted to have low mobility in soil.

**Persistence and Degradation**

The product is non-biodegradable in soil. There is no evidence of degradation in soil and water.

**Toxicity**

The product is predicted to have low toxicity to aquatic organisms.

**Effect on Effluent Treatment**

The material is essentially insoluble in water and can therefore be separated from aqueous medium by sedimentation and filtration processes at an effluent treatment plant.

---

**13. DISPOSAL CONSIDERATIONS**

“GAMMACRIL®” Cast Acrylic Rods waste is considered to be non-hazardous. Clean scrap may be reprocessed. Incineration may be used to recover energy value. May be disposed of by landfill in accordance with local regulations. Ensure that all packaging is disposed of safely.

---

**14. TRANSPORT INFORMATION**

Not Classified as Dangerous for Transport.

---

**15. REGULATORY INFORMATION**

Not Classified as Dangerous for Supply/Use.

**CE Labelling:**      Not applicable.

---

**Product Name: “GAMMACRIL®” CAST ACRYLIC RODS**

---

## **16. OTHER INFORMATION**

This data sheet was prepared in accordance with Directive 93/112/EC.

“GAMMACRIL®” is a trade mark of GAMMACRIL s.r.l.

Information contained in this publication or as otherwise supplied to users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. GAMMACRIL s.r.l. gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. GAMMACRIL s.r.l. accepts no liability for loss or damage, resulting from reliance on this information.

### **GLOSSARY:**

LTEL: Long Term Exposure Limit  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit