MATERIALS SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT / COMPANY IDENTIFICATION

PRODUCT IDENTIFIER: RESINAR F 11 20 21 / 11 20 25
PRODUCT USE: Acrylic Resin

CAS NUMBER: 9011-14-7
CAS NAME: Poly (Methyl Methacrylate)

DISTRUBUTOR'S NAME: MICRO STAR 2000 INC.
DISTRUBOTOR'S ADDRESS: 225 Bradwick Drive, Unit 21
Concord, Ontario, Canada
L4K 1K7

EMERGENCY PHONE NUMBER: 905-660-1754

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS:

MATERIAL	CAS NUMBER	% by Weight
Poly (Methyl Methacrylate)	9011-14-7	>99

This material is not intended for applications involving elevated temperatures. However, if it is required to be used for processing at elevated temperatures, please contact the supplier for relevant Safety, Health and Environmental information.

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: **Solid granules. May evolve irritating fumes on processing or overheating.**

POTENTIAL HEALTH EFFECTS:

EYE: May cause irritation.

SKIN: Unlikely to cause skin irritation.

INGESTION: Low oral toxicity.

INHALATION: Unlikely to be hazardous but dust or vapors may cause irritation.

CHRONIC (CANCER) INFORMATION: No information but adverse effects unlikely.

TERATOLOGY (BIRTH DEFECT) INFORMATION: No information but adverse effects unlikely.

REPRODUCTIVE INFORMATION: No information but adverse effects unlikely.

SECTION 4 – FIRST AID MEASURES

SLIGHT INHALATION: Remove patient from exposure. Obtain medical attention if ill effects occur.

HAZARDOUS INHALATION: No additional information.

SKIN CONTACT: Wash skin with soap and water. If irritation develops or persists, seek medical attention.

HAZARDOUS SKIN CONTACT: No additional information.

EYE CONTACT: Remove particles by irrigating with eye wash solution or clean water, holding eyelids apart. Obtain medical attention.

SLIGHT INGESTION: DO NOT induce vomiting. Wash out mouth with water. Seek medical attention.

HAZARDOUS INGESTION: Further medical treatment: Symptomatic treatment and supportive therapy as indicated.

SECTION 5 – FIRE AND EXPLOSION DATA

The product is: May be combustible at high temperature.

Auto-ignition temperature: Not available.

Fire degradation products: May decompose if heated above 200°C. Combustion or thermal decomposition will evolve toxic, irritant and flammable vapours.

Flash points: 300°C (572°F). (ASTM D1929).

Fire extinguishing procedure: Extinguishing media: Water spray, foam, dry powder or CO_2.

Fire fighting equipment: Self-contained breathing apparatus (NIOSH/MSHA or equivalent) and full protective clothing should be worn in fire conditions.

Flammability: Combustible but not readily ignited.

The material is not intended for applications involving elevated temperatures. However, if it is required to be used for processing at elevated temperatures, please contact the supplier for relevant Safety, Health and Environmental Information.

Remark: Keep away from excessive heat or open flame.

Risks of explosion: May form explosible dust clouds in air.

Remark: Keep away from excessive heat or open flame.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Small spill and leak: CAUTION – spillages may be slippery. Sweep up and shovel into waste drums or plastic bags. Wash the spillage area with water. Wear protective equipment during clean up.

Large spill and leak: No additional remark.

Protective clothing in case of large spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to inhalation of the product. Suggested protective clothing might not be sufficient, consult a specialist **BEFORE** handling this product.

SECTION 7 – HANDLING AND STORAGE

Storage: RESINAR F acrylic polymers are supplied in either drums or other specialty packaging. Keep containers in a clean, cool and dry area away from heat sources. Natural ventilation is adequate.

Storage Temperature: Ambient.

Precaution: Avoid eye contact and repeated or prolonged skin contact. Care should be taken to prevent burns from contact with hot material. Eye/face protection is recommended. Wear thermal insulating gloves when handling hot masses. Avoid inhalation of high concentrations of dust. An approved NIOSH/MSHA dust mask should be worn if exposure to high levels of dust are likely. Determine the appropriate type by consulting the respirator manufacturer. Storage temperature: Ambient. Keep containers in a clean, cool and dry area away from heat sources. Natural ventilation is adequate.

Handling: Process Hazards - Care should be taken to prevent burns from contact with hot material. All polymers degrade to some extent if over heated, an effect which increases with increasing temperature. It is therefore impossible to be precise about which substances may be evolved. However, it is only the minor components which vary substantially. The major components are given in the “STABILITY

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Normal Handling: The use of eye protection is recommended. An approved NIOSH/MSHA dust mask should be worn if exposure to high levels of dust are likely. Determine the appropriate type of equipment for specific application by consulting the respirator manufacturer.

Thermal Processing: Wear eye/face protection. Wear thermal insulating gloves when handling hot masses.

EXPOSURE GUIDELINES:

EXPOSURE LIMITS:

RESINAR F Acrylic Resin
PEL (OSHA): Particulates (Not Otherwise Classified) 15 mg/m3, 8 Hr. TWA, total dust 5 mg/m3, 8 Hr. TWA, respirable dust
TLV (ACGIH): None Established

OTHER APPLICABLE EXPOSURE LIMITS:

METHYL METHACRYLATE
PEL (OSHA): 100 ppm, 410 mg/m3, 8 Hr. TWA
TLV (ACGIH): 100 ppm, 410 mg/m3, 8 Hr. TWA
ICI Recommended: 50 ppm, 205 mg/m3, 8 Hr. TWA, 100 ppm, 410 mg/m3 STEL

SECTION 9 – PHYSICAL DATA

Physical state and appearance:	Solid (Beads)
pH (1% soln/water):	Not available
Odor threshold:	Not available
Volatility:	<1%
Melting point:	Not available
Boiling point:	Not available
Specific gravity:	Not established
Vapor density:	Not available
Vapor pressure:	Not available
Water/oil dis. coeff:	Not available
Ionicity (surface active agent):	Not available
Critical temperature:	Not available
Instability temperature:	Not available
Conditions of instability:	No additional remark
Dispersion properties:	Not available
Solubility:	Negligible in water

Odor:	Typical “methacrylate”
Taste:	Not available
Color:	Not available

SECTION 10 – STABILITY AND REACTIVITY

Stability: The product is stable. Hazardous polymerization will not occur.

Hazardous Decomposition Product(s): Methyl methacrylate.

Degradability: The product is non-biodegradable in soil. There is no evidence of degradation in soil and water. The product is anticipated to be poorly removed in biological treatment processes.

Products of degradation: The product is predicted to have low toxicity to aquatic organisms. All polymers degrade to some extent if over heated, an effect which increases with increasing temperature.

Remark: However, it is only the minor components which vary substantially.

Corrosivity: No specific information is available in our data base regarding the corrosivity of this product in presence of various materials.

Reactivity: No specific information is available in our data base regarding the reactivity of this material in presence of various other materials.

Hazardous Reactions: None known.

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of entry: Eye contact. Skin contact. Inhalation. Ingestion.

Chronic effects on humans: Carcinogenic effects: No information but adverse effects unlikely.
Mutagenic effects: Not available.
Teratogenic effects: No information but adverse effects unlikely.
Developmental toxicity: No information but adverse effects unlikely.

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

Acute effects on humans:
Eye Contact: Dust may cause irritation.
Skin Contact: Unlikely to cause skin irriation
Inhalation: Unlikely to be hazardous by inhalation. High concentrations of dust may be irritating to the upper respiratory tract. High concentrations of vapour from hot operations may be harmful, cause irritation of the respiratory tract, and slight narcotic effects.
Ingestion: Low oral toxicity.

SECTION 12 – ECOLOGICAL INFORMATION

Environmental Fate and Distribution: High tonnage material produced in partially contained systems. 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 of Effluent Treatment: The product is anticipated to be poorly removed in biological treatment processes.

SECTION 13 – DISPOSAL CONSIDERATIONS

RESINAR F 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. Certain packages are returnable. Please consult your local office for further details. Ensure that all packaging is disposed of safely.

SECTION 14 – TRANSPORT INFORMATION

Shipping Information:

DOT: Not Regulated

SECTION 15 – REGULARY INFORMATION

Not classified as hazardous to users or for transport.

U.S. Federal Regulations

TSCA Inventory Status: Reported/Included.

SECTION 313 SUPPLIER NOTIFICATION
This product contains no known toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 3712.

Canadian Regulations:
DSL regulatory status: Included.

European Regulations:
EINECS: Polymer, monomer included, 201-297-1 (methyl methacrylate).

SECTION 16 – CLASSIFICATION

WHMIS: Not controlled under WHMIS (Canada)

SECTION 17 – OTHER INFORMATION

Additional Information
NA = Not Applicable
NE = Not Established

Canadian Environmental Protection Act (CEPA): This product is on the Domestic Substances List (DSL), and is acceptable for use under the provisions of CEPA. TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

The information herein is given in good faith but no warranty, expressed or implied, is made. MICRO STAR 2000, INC. assumes no responsibility for personal injury or property damage that may arise from use of this material. Vendees or users assume all risks associated with the use of this material.

SECTION 18 – PREPARATION OF MATERIALS SAFETY DATA SHEET

PREPARED BY: R. Dickertmann PHONE NUMBER: 905-660-1754 REVISED: July 24, 2008