

Material Properties

ENGRAVABLE PLASTICS

Material Name: LaserMetallicBrush

Properties:	Typical Values	ASTM Method
Tensile Modulus:	270,000 psi	D-638
Tensile Strength:	5,500 psi	D-638
Flexural Modulus:	270,000 psi	D-790
Flexural Strength:	10,300 psi	D-790
Gravity:	1.15	D-792
Rockwell Hardness:	45M	D-785
IZOD Impact Strength		
Notched at 73°F (22.777°C)	1.10 ft lbs/in	D-256
Heat Deflection Temperature		
ASTM D-648 (0.455 MPa; annealed)	192 degrees F	D-648
ASTM D-648 (1.82 MPa; annealed)	175 degrees F	D-648
Melt Flow Rate	1.0g/10 min (230 degrees C/3.8 kg)	D-1238



INNOVATIVE PLASTICS INC.

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 www.inoplas.com

All IPI products are available only through your Authorized IPI distributor.

Visit www.inoplas.com to locate a distributor in your area.



INNOVATIVE PLASTICS INC.
NEW PERSPECTIVES IN SIGN MATERIALS

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION: LaserMetallic Brush Series

Section I – Chemical Product and Company Identification

Manufacturers Name: Innovative Plastics Inc.
PO Box 7065, Algonquin, IL 60102

Phone: (815) 477-0778

EMERGENCY PHONE NUMBERS

Medical: 911

Poison Control: 800-589-3897

Product Description: Laser Metallic Brush Series

Product Synonym(s): Film-stamped Impact Modified Acrylic

Chemical Family: Acrylic Polymer

Chemical Formula: Mixture

Chemical Name: Mixture

EPA Reg Number:

Product Use: Signage, Other

Section II – Composition/Information on Ingredients

<u>Ingredient Name</u>	<u>CAS Registry Number</u>	<u>Typical Wt. %</u>	<u>OSHA</u>
P (EA/MMA)	Proprietary	50-54	N
Acrylic Styrene Copolymer	Proprietary	35-50	N
Methyl methacrylate	80-62-6	<0.5	Y
Ethyl acrylate	140-88-5	<0.1	Y
Aluminum Flake	7429-90-5	1-5	
Carbon Black	1333-86-4	1-5	
Copper	7440-50-8	1-5	

The substance(s) marked with a “Y” in the OSHA column are identified as hazardous chemicals according to the criteria of the OSHA Hazardous Communication Standard (29 CFR 1910.1200).

While this material is not classified as hazardous under Federal OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of this product. This MSDS should be retained and available for employees and other users of this product.

The components of this product are all on the TSCA Inventory list.

Section III – Hazardous Identification

Emergency Overview:

Various colors with characteristic odor. CAUTION! MELT PROCESSING RELEASES VAPORS WHICH MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION

POTENTIAL HEALTH EFFECTS:

Skin contact and inhalation of dust are expected to be the primary routes of occupational exposure to this material. As a finished product, it is a synthetic, high molecular weight polymer pellet. Due to its chemical and physical properties, this material does not require special handling other than the good industrial hygiene and safety practices employed with any industrial material of this type. Ethyl acrylate is listed as a substance that may reasonably be anticipated to be a carcinogen by the National Toxicology Program (NTP) and is classified as “possibly carcinogenic to humans” by the International Agency for Research on Cancer.

Section IV – First Aid

INHALATION IRRITATION: Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

EYES: Immediately flush with plenty of water. Get medical attention if irritation persists.

SKIN CONTACT: Flush the area with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops and persists.

INGESTION: Not a hazard in normal industrial use. If ingested, consult a physician.

Section V – Fire and Explosive Hazard

Fire and Explosive Properties

Auto-Ignition Temperature: 393 C/739 F

Flash Point: N/A Flash Point Method

Flammable Limits: Upper: N/A
Lower: N/A

EXTINGUISHING MEDIA:

Use water spray, carbon dioxide, foam or dry chemical.

FIRE FIGHTING INSTRUCTIONS:

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

FIRE AND EXPLOSION HAZARDS:

Heated material can form flammable vapors with air. Can include carbon monoxide, carbon dioxide, small quantities of nitric oxides (NO_x), trace levels of hydrogen chloride and acetic

acid. During processing, film may pick up a strong static charge. Avoid discharge into dust or solvent laden air as a flash fire or explosion may result.

Section VI – Accidental Release Measures

IN CASE OF SPILL OR LEAK:

Contain spill. Sweep or scoop up and remove to suitable container. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Section VII – Handling and Storage

HANDLING: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation.

STORAGE: Avoid temperature extremes during storage; ambient temperature preferred. Store away from heat sources of ignition. Do not store in direct sunlight.

Section VIII – Exposure Controls/Personal Protective Equipment

EXPOSURE CONTROLS: Adequate ventilation in work area is needed due to dust or vapors created during fabrication.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

EYE/FACE PROTECTION: Safety glasses or face shield should be used. If exposed to dust, chemical glasses may be required.

SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed. Use insulated gloves for thermal protection, when desired.

RESPIRATORY PROTECTION: In dusty atmospheres, use an approved respirator.

Section IX – Physical Data

APPEARANCE/ODOR: Various colors, characteristic odor

PHYSICAL STATE: Solid

BOILING POINT: N/A

VAPOR PRESSURE: N/A

VAPOR DENSITY: N/A

SPECIFIC GRAVITY: 1.15-1.19

Section X – Stability and Reactivity

CHEMICAL STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Prolonged contact with acids, alkalis, and strong oxidizing agents may attack or dissolve the polymer.

Section XI – Toxicology Information

No data available.

Section XII – Ecological Information

MOVEMENT & PARTITIONING: In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and remain in the sediment.

DEGRADATION & PERSISTENCE: This water insoluble polymeric solid is expected to be inert in the environment. Surface photo degradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

ECOTOXICITY: Not expected to be acutely toxic, but chips may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

Section XIII – Disposal Considerations

Disposal must be in accordance with applicable governmental regulations.

Section XIV – Transport Information

DEPARTMENT OF TRANSPORTATION (D.O.T): This product is not regulated by D.O.T. when shipped domestically by land.

CANADIAN TDG INFORMATION: This product is not regulated by TDG when shipped domestically by land.

Section XV – Regulatory Information

(Not meant to be all-inclusive – selected regulations represented)

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)

Immediate (Acute) Health	N	Delayed (Chronic) Health	N
Sudden Release of Pressure	N	Reactive	N
Fire	N		

The components of this product are all on the TSCA inventory list.

INGREDIENT RELATED REGULATORY INFORMATION:

SARA REPORTABLE QUANTITIES	CERCLA RQ	SARA TPQ
Ethyl acrylate	1000 LBS	N/A
Methyl methacrylate	1000 LBS	
P (EA/MMA)	N/A	

Section XV – Regulatory Information (cont'd.)

SARA TITLE III, SECTION 313

This product does contain chemical(s), which are defined as toxic chemicals under and subject to the reporting requirements of, Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 986 and 40 CFR Part 372. See Section 2.

Ethyl acrylate
Methyl acrylate
Aluminum
Copper

CALIFORNIA PROPOSITION 65 – CARCINOGEN

This product does contain the following chemical(s), as indicated below, currently on the California list of known Carcinogens.

Ethyl acrylate
Toluene
Mercury

This product may contain trace levels of components know to the state of California to cause cancer:

Antimony (3+) Trioxide
Arsenic
Cadmium
Chromium (6+)
3,3' -Dichlorobenzidine
Ethyl Acrylate
Formaldehyde
Lead
Nickel
Selenium Sulphide

NEW JERSEY RIGHT-TO-KNOW: This product does contain the following chemical(s) as indicated below, currently on the New Jersey Right-to-Know Substances list.

Ethyl acrylate
Methyl methacrylate

PENNSYLVANIA ENVIRONMENTAL HAZARD

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Environmental Hazard list.

Ethyl acrylate
Methyl methacrylate

Section XV – Regulatory Information (cont'd.)

PENNSYLVANIA RIGHT-TO-KNOW: This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Environmental Hazardous Substance list.

Ethyl acrylate
Methyl methacrylate
Chromium (3+)
Formaldehyde

PENNSYLVANIA SPECIAL HAZARD

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Special Hazard list.

Ethyl acrylate

MASSACHUSETTS RIGHT-TO-KNOW: This product does contain the following chemical(s), as indicated below, currently on the Massachusetts Right-to-Know Substance list.

Ethyl acrylate
Methyl methacrylate
Antimony (3+) Trioxide
Arsenic
Cadmium
Chromium (3+), (6+)
3,3'-Dichlorobenzidine
Formaldehyde
Lead
Nickel
Vinyl Acetate

ADDITIONAL INFORMATION

NFPA HAZARD RATING (National Fire Protection Association):

FIRE: Materials that must be preheated before ignition can occur

HEALTH: Materials that under emergency conditions would offer no hazard beyond that of ordinary combustible materials.

REACTIVITY: Materials that, in themselves are normally stable, even under fire exposure conditions.

Health 0 Fire 1
Special – 0 Reactivity

REASON FOR ISSUE:

The information provided in the Material Safety Data Sheet pertains to the product as supplied by Innovative Plastics Inc.

The descriptions, data and information contained herein are presented in good faith and believed to be accurate. It is provided for your guidance only for your internal safety program. This data sheet is subject to revision as additional knowledge and experiences are gained.