Polymics, Ltd.
High Performance Polymers & Compounds

Material Safety Data Sheet

MSDS
2012-01-26

I. Product and Company Identification

Trade Name:	Arylmax ®
Part Number:	P7000
Product Description:	Poly(aryletherketone)
Molecular Formula:	Polymer
Molecular Weight:	Polymer
Product Type:	Non-commercial Product
Product Use	Research and development only
Company:	Polymics Ltd. 2215 High Tech Road, State College, PA 16803 Tel: 814-357-5860 Fax: 814-357-5863
Emergency Telephone:	Polymics, Ltd. 814-357-5860

II. Composition & Information on Ingredients

This product consists primarily of high molecular weight polymers, which are not expected to be hazardous.

III. Hazards Identification

EMERGENCY OVERVIEW:

- Off white powder with little or no odor.
- Spilled material may create slipping hazard.
- Can burn in a fire creating dense, toxic smoke
- Molten plastic can cause severe thermal burns.
- Fumes produced during melt processing may cause eye, skin, and respiratory tract irritation. Severe over-exposure may result in nausea, headache, chills, and fever.
- Secondary operations, such as grinding, sanding, or sawing can produce dust which may present an explosion or respiratory hazard.

Hazard Rating:

Health	**0**
Flammability	**1**
Reactivity	**0**

Potential Personal Hazards	
Skin:	Powder not likely to cause skin irritation
Eyes:	Product may cause irritation or injury due to mechanical action.
Inhalation:	May cause irritation.
Ingestion:	Not toxic in normal use.
Sensitization:	No information available.

Chronic/Carcinogenic Information	
Chronic Toxicity:	No information available
Resin Issues:	Processing fumes may cause irritation to the eyes, skin and respiratory tract. In cases of severe exposure, nausea and headache can also occur. Grease-like processing fume condensates on ventilation ductwork, molds, and other surfaces can cause irritation and injury to skin. May cause irritation or injury due to mechanical action.
Aggravated Medical Conditions:	MEDICAL RESTRICTIONS: There are no known health effects aggravated by exposure to this product. However, certain sensitive individuals and individuals with respiratory impairments may be affected by exposure to components in the processing vapors.

IV. First Aid Measures

Skin:	Cool skin rapidly with cold water after contact with hot polymer. Wash off immediately with soap and plenty of water. Consult a physician.
Eyes:	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists, consult a specialist.
Inhalation:	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.
Ingestion:	No hazard in normal use. If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.
Precautions:	Processing fumes inhalation may be irritating to the respiratory tract. If symptoms are experienced remove victim from the source of contamination or move victim to fresh air and obtain medical advice.

V. Fire-Fighting Measures

Autoignition Temperature:	No information available
Explosive Limits – Upper:	Not determined
Explosive Limits – Lower:	Not determined

Suitable Extinguishing Media:	Water spray mist or foam
Extinguishing Media not be used for Safety Reasons:	Carbon dioxide and dry chemical are not recommended because their lack of cooling capacity may permit re-ignition
Hazards from Combustion Products:	Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, hydrocarbon fragments, nitrogen oxides.
Special Protective Equipment for Firefighters:	Do not enter fire area without proper protection including self contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.
Specific Hazards:	Take precautionary measures against static discharges. During processing, dust may form explosive mixture in air. Thermal decomposition can lead to release of irritating gases and vapors.

VI. Accidental Release Measures

General:	Sweep or gather up material and place in proper container for disposal or recovery. Do not create a powder cloud by using a brush or compressed air.
Waste Disposal:	Incinerate in a licensed facility. Do not discharge into waterways or sewer systems.
Container Disposal:	Unused material and empty containers must be disposed of in accordance with local, state and federal regulations.
Environmental Precautions:	Do not flush into surface water or sanitary sewer system. Should not be released into the environment.

VII. Handling & Storage

Handling:	Follow good-standard industrial hygiene practice and provide adequate ventilation. Use adequate ventilation and aggressive housekeeping practice to prevent dust accumulation.
Storage:	Inert material under normal storage conditions. No specific precautions required.

VIII. Exposure Control / Personal Protection

Exposure Controls	
Exposure Guidelines/Limits:	No components with information, unless noted below
Engineering Controls:	When handling powder, use non-sparking tools, grounding, bonding venting, and explosion relief provisions in accordance with accepted engineering practices. During melt processing, maintain a continuous supply of fresh air to the workplace together with the removal of processing fumes.

Personal Protection	
Hand Protection:	Protective gloves
Eye/Face Protection:	Safety glasses with side-shields or chemical goggles. In addition, use full-face shield when cleaning processing fume condensates from hood, ducts, and other surfaces.
Skin Protection:	Long sleeved clothing
Respiratory Protection:	If airborne dust is produced through handling, grinding, sanding or sawing molded parts, and is not adequately controlled through ventilation, use a respirator approved for protection from dust. When using this product at elevated temperatures, implement engineering systems, administrative controls or a respiratory protection program (including a respirator approved for protection from organic vapors, acid gases and particulate matter) if processing fumes are not adequately controlled or operators experience symptoms of overexposure. If dust of powder is produced from secondary operations such as sawing or grinding, use a respirator approved for protection from dust.
Hygiene Measures:	When using, do not eat, drink or smoke.

IX. Physical & Chemical Properties

Appearance:	No order, powder	**Specific Gravity:**	1.20-1.30
Physical State:	Solid	**pH:**	N/A
Boiling Point:	N/A	**Solubility In Water**	Insoluble
Melting Point:	310-360℃	**Vapor Pressure:**	N/A
Flash Point:	Does not flash	**Vapor Density:**	N/A
Ignition Temperature:	N/A	**Evaporation Rate:**	N/A
Odor:	Odorless	**% Volatiles:**	N/A

X. Stability & Reactivity

Stability:	Stable at normal conditions. Hazardous polymerization does not occur.
Hazardous Decomposition Products:	Processing fumes evolved above recommended processing conditions may include trace levels of hydrocarbon fragments, phenols, other substituted hydrocarbons, carbon dioxide and carbon monoxide.
Conditions to Avoid:	To avoid thermal decomposition, do not overheat. Heating can release hazardous gases. Do not exceed melt temperature recommendations in product literature. In order to avoid autoignition/hazardous decomposition of hot thick masses of plastic, purgings should be collected in small, flat, shapes or thin strands to allow for rapid cooling. Quench in water. Do not allow product to remain in barrel at elevated temperatures for extended periods of time: purge with a general purpose resin.

XI. Toxicological Information

Acute Toxicity	
LD50/oral/rat:	> 5000 mg/kg
LD50/dermal/rabbit:	**>** 2000 mg/kg

XII. Ecological Information

Ecological Information:	Do not flush into surface water or sanitary sewer system.
Other information:	Ecological damages are not known or expected under normal use.

XIII. Disposal Considerations

Waste Disposal:	Recycling is encouraged. Landfill or incinerate in accordance with federal, state and local requirements. Collected processing fume condensates and incinerator ash should be tested to determine waste classification.
US EPA Waste number:	None

XIV. Transport Information

Transport Classification:	Not regulated as hazardous for shipment under current transportation guidelines.

XV. Regulatory Information

TSCA (USA):	Not listed
IECSC (China):	Not listed
DSL/NDSL (Canada):	Not listed
EINECS/ELINCS (Europe):	Not listed
KECL (Korea):	Not listed

Other Inventory Information:
A "Listed" entry above means all chemical components are on the respective inventory list and/or a qualifying exemption exists for one or more components.

SARA 313:
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

XVI. Other Information

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