



SAFETY DATA SHEET

SDS No: 0018

Section 1. Product and Company Identification

Product Name: LaserMax®

Trade Name: Film-stamped Impact Modified Acrylic

Recommended Use: Signage, Other

Restrictions on Use: None

Manufacture: Rowmark
5409 Hamlet Drive
Findlay, OH 45840

In Case of Emergency: Call: Medical:911
Poison Control: 800-589-3897
Email:
Information: Call: 1-877-ROWMARK
Email: techhelp@rowmark.com

Section 2. Hazard Identification

GHS Classification: Not Classified

GHS Label Elements: Not Applicable

GHS Rating

Health	5
Flammability	4
Instability	5
Special	

NEW GHS Hazard Categories

Category 1 = Severe Hazard
Category 2 = Serious Hazard
Category 3 = Moderate Hazard
Category 4 = Slight Hazard
Category 5 = Minimal Hazard

Other Hazards: Not Applicable

Section 3. Composition / Information on Ingredients

Name	CAS #	% by Weight	OSHA
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
Aluminium Flake	7429-90-5	1-5	
Carbon Black	1333-86-4	1-5	
Copper	7440-50-8	1-2	

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 SDS contains valuable information critical to the safe handling and proper use of this product. This SDS 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.

* Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

Section 4. First Aid Measures

Inhalation:	Dust and process vapors may be irritation to the nose, throat and respiratory tract. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get Medical attention.
Eyes:	Dust, fines and process vapors may irritate the eyes. Immediately flush eyes with water for at least 15 minutes. Get medical attention.
Skin:	Exposure to molten plastic may cause thermal burns. If molten material comes in contact with the skin, cool under ice water or a running stream.
Ingestion:	No adverse health effects expected from ingestion.

Section 5. Fire-Fighting Measures

Suitable Extinguishing Methods:	Dry Chemical, Water Spray, Foam Carbon Dioxide. Avoid using direct streams of water on molten burning material.
Unsuitable Extinguishing Methods:	NONE known.
Hazards During Fire-fighting:	Carbon monoxide, carbon dioxide, original monomer other hydrocarbon oxidation products.
Protective Equipment:	Wear self-contained breathing apparatus and protective suit.

Section 6. Accidental Release Measures

Personal Precautions:	See Section 8 - Exposure Controls / Personal Protection.
Environmental Precautions:	No Special environmental precautions required.
Methods and Materials for Containment and Cleaning Up	
Spill / Leak:	Containment of this material should not be necessary. Sweep up or gather material and place in appropriate container for disposal.

Section 7. Handling and Storage

Handling:	Keep away from heat, flame and strong oxidizing agents.
Storage:	Keep away from heat, sparks, and flame. Store in cool place in original container and protect from sunlight.

Section 8. Exposure Control and Personal Protection

Exposure Limits:

1) Effects of Acute Exposure:	Inhalation of vapors may result in irritation of upper respiratory tract
2) Effects of Chronic Over Exposure:	
3) OSHA Permissible Exposure Limits:	US. ACGIH Threshold Limit Values
Form:	
Time weighted average	Inhalable particles 10 mg/m3
Form:	
Time weighted average	Respirable particles 3 mg/m3
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)	
Form:	
PEL:	Respirable fraction 5 mg/m3
Form:	
PEL:	Total dust 15 mg/m3
US. OSHA Table Z-3 (29 CFR 1910.1000)	
Form:	
Time weighted average	Respirable fraction 15 ppm
Form:	
Time weighted average	Total dust 50 ppm
Form:	
Time weighted average	Respirable fraction 5 mg/m3
Form:	
Time weighted average	Total dust 15 mg/m3

4) Carcinogen Potential:**Engineering Controls:**

Use recommended safe handling practices to minimize unnecessary exposure.

General room ventilation is adequate for storage and ordinary handling.

Use local exhaust at points of fume generation or if dusty conditions prevail.

Personal Protective Equipment:

Wear safety glasses with side shields or chemical goggles to prevent eye contact.

Have eye-washing facilities readily available where eye contact can occur.

Wear impervious gloves and protective clothing to prevent skin contact.

Section 9. Physical and Chemical Properties

Appearance:	Various Colors	Vapor Pressure:	Not Applicable
Odor:	Slightly acrylic	Vapor Density:	Not Applicable
pH:	Not applicable	Relative Density:	1.19 g/cm ³
Melting Point / Freezing Point:	No data available	Solubility (ies):	Not Applicable
Boiling Point:	No data available	Partition Coefficient (N-Octanol/Water):	No data available
Flash Point:	Not applicable	Auto-Ignition Temperature:	739°F (393°C)
Evaporation Rate:	Not applicable	Decomposition Temperature:	>572°F (> 300°C)
Flammability (solid, gas):	See GHS in section 2	Viscosity:	No data available
Upper Explosive Limit:	Not applicable	Specific Gravity:	1.19 Water = 1 (liquid)
Lower Explosive Limit:	Not applicable	Percent Volatile:	0%

Section 10. Stability Reactivity

Reactivity:	No data available
Chemical Stability:	Stable
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur
Conditions to Avoid:	Avoid flames, welding arcs, potential ignition sources, or other high temperature sources, prolonged contact with acids, alkalis and strong oxidizing agents
Incompatible Materials:	None under normal conditions of use
Hazardous Decomposition Products:	Carbon oxides, Acrylates, Methacrylates, Hazardous organic compounds
Combustion Products:	No data available

Section 11. Toxicological Information**Irritation Effects**

Eye Irritation:	Solid particles may cause transient irritation from mechanical abrasion.
Skin Irritation:	Not expected to cause skin irritation. Molten material may cause thermal burns.
Inhalation:	Not a likely route of exposure. Process fumes may cause irritation.
Ingestion:	May cause a choking hazard if swallowed.

Data for PLEXIGLAS® DR®-101 ACRYLIC RESIN**Acute Toxicity**

Dermal:	Acute toxicity estimate > 5,000 mg/kg
Inhalation:	4 h Acute toxicity estimate > 10 mg/L

Data for Acrylic copolymers (Proprietary)**Other Information**

The information presented is from representative materials in this chemical class. The results may vary depending on the test substance.

Effects due to processing releases or residual monomer: Possible cross sensitization with other acrylates and methacrylates.

Data for Acrylic styrene copolymers (proprietary)**Other Information**

The information presented is from a representative material with a similar structure. The results vary depending on the size and composition of the test substance.

Effects due to processing releases or residual monomer: Possible cross sensitization with other acrylates and methacrylates.

Additional Toxicological Information

When used and handled according to specifications, the product does not have any harmful effects according to research and information provided by suppliers.

Carcinogenic Effect

International Agency for Research on Cancer (IARC) : Group3 NOT classifiable as to its carcinogenicity to humans.

Section 12. Ecological Information

Eco-toxicity:	Toxicity to fish - No relevant studies identified.
Persistence and Degradability:	This material is not expected to be readily biodegradable.
Bio-accumulate Potential:	Product is not likely to accumulate in biological organisms.
Mobility in Soil:	This Product has not been found to migrate through soils.
Other Adverse Effects:	This Substance is not in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Section 13. Disposal Considerations

Disposal Methods

Product Recommendation:

1. Recycle (Reprocess) if product has not been contaminated so as to make it unsuitable for its intended use.
2. Disposal through controlled incineration or authorized waste dump in accordance with Local, State or Federal Regulations.

Uncleaned Packaging Recommendation:

1. Disposal must be done in accordance with Local, State, or Federal Regulation.

Section 14. Transportation Information

UN Number:	Not Relevant
UN Proper Shipping Name:	Not Relevant
Transportation Hazard Class(es)	
DOT:	Not Regulated/classified
ADR / RID:	Not Regulated/classified
IMDG:	Not Regulated/classified
ICAO/IATA	Not Regulated/classified
Packing Group:	Not Applicable
Environmental Hazards:	Not Relevant
Transportation in Bulk (According to Annex II of MARPOL 73/78 and IBC Code):	Not Relevant
Special Precautions for User:	No special precautions

Section 15. 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	N/A

	P (EA/MMA)	N/A	N/A
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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 1986 and 40 CFR Part 372. See section 2.

Chemical Name	CAS-No.	De minimis concentration	Reportable Threshold:
Ethyl acrylate	Not assigned	Not assigned	Not assigned
Methy methacrylate	Not assigned	Not assigned	Not assigned
Aluminium	Not assigned	Not assigned	Not assigned
Copper	Not assigned	Not assigned	Not assigned
2-Propenoic acid, ethyl ester	140-88-5	0.10%	10000 lbs (otherwise used (non-manufacturing/processing)) 25000 lbs (manufacturing and processing)

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-Reportable Quantity (RQ)

Chemical Name	CAS-No.	Reportable quantity
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	1000 lbs
2-Propenoic acid, ethyl ester	140-88-5	1000 lbs

Chemical Inventory Status

EU. EINECS	EINECS	Conforms to
United States TSCA Inventory	TSCA	The components of this product are all on the TSCA Inventory
Canadian Domestic Substances List (DSL)	DSL	All components of this product are on the Canadian DSL.
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Does not conform
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	Does not conform
Japan. ISHL-Inventory of Chemical Substances	ISHL (JP)	Does not conform
Korea. Korean Existing Chemicals Inventory	KECI (KR)	Conforms to
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	Conforms to
Australia Inventory of Chemical Substances	AICS	Conforms to

Section 16. Other Information

No Additional Information

NOTICE: The information presented in this Safety Data Sheet is based on data considered to be accurate as of the date this Safety Data Sheet was prepared. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

Revision Date: March 7, 2017

OSHA HazCom:	This Material is not Hazardous b OSHA Hazardous Communication Standard 29 CFR 1910.1200
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SARA 313:

Immediate Hazard: NO	Fire Hazard: NO	Reactivity Hazard: NO
Delayed Hazard: NO	Pressure Hazard: NO	

Section 16. Other Information
No Additional Information

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Revision Date:

Physical Properties	Typical Values	ASTM Method
<u>IZOD Impact Strength</u>		
Notched at 73°F (22.78°C)	1.10 ft lbs/in	D-256
<u>Tensile Strength</u>		
To break	5,500 psi	D-638
Elongation before break	50%	D-638
<u>Flexural Strength</u>		
Load to stretch outer surface 5%	10,300 psi	D-790
<u>Specific Gravity</u>	1.15	D-792
<u>Rockwell Hardness</u>	M45	D-785
<u>Deflection Temperature</u>		
Temperature at which material deflects .010" (.254mm) at 264 psi	175°F (79.44°C)	D-648
<u>Coefficient of Thermal Expansion</u>		
Inch/inch/°F	5.6 x 10 ⁻⁵	D-696
<u>Vicat Softening Point</u>		
Temperature for needle to penetrate 1mm (90°F/hr, 2.2 lbs)	208°F (97.78°C)	D-1525
Temperature for needle to penetrate 1mm (90°F/hr, 11.0 lbs)	187°F (86.11°C)	D-1525

LaserMax softens at about 200°F (93.33°C) sufficiently so that it can be bent as needed. It can be sawed, drilled and bonded.

The base material was tested for flammability by Underwriters Laboratories. The material is rated 94 HB on the UL 94 test.