Material Safety Data Sheet (MSDS)

DR Acrylic Resin

Applicable Rowmark Product Lines:
ADA Alternative
Earthtones
FlexiBrass
FlexiColor
Granites Deluxe
Lacquers
LaserMark
LaserMax
Outdoor Weatherable Metals
Reverse LaserMark
Slickers
Textures
Ultra-Mattes Front-Engravable
Ultra-Mattes Reverse-Engravable
PLEXIGLAS (R) V-GRADE Acrylic Resin
-MATERIAL SAFETY DATA SHEET-
ElAtochem North America, Inc.

1 PRODUCT AND COMPANY IDENTIFICATION

Atoglas Resin
ElAtochem North America, Inc.
2000 Market Street
Philadelphia, PA 19103

EMERGENCY PHONE NUMBERS:
Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(303) 623-5716 (24Hrs)

Information Telephone Numbers

Atoglas Customer Service
(800) 523-1532
8:00 am - 6:00pm EST

Product Name: PLEXIGLAS (R) V-GRADE Acrylic Resin

Product Synonym(s):

Chemical Family: Acrylic Copolymer
Chemical Formula: N/A
Chemical Name: See Ingredients
EPA Reg Num:
Product Use:

2 COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS Registry Number</th>
<th>Typical Wt. %</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>P(EA/MMMA)</td>
<td>Proprietary</td>
<td>99.3</td>
<td>Y</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>80-62-6</td>
<td>&lt;0.7</td>
<td>Y</td>
</tr>
<tr>
<td>Ethyl acrylate</td>
<td>140-88-5</td>
<td>&lt;0.1</td>
<td>Y</td>
</tr>
</tbody>
</table>

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

This material is classified as hazardous under Federal OSHA regulation.

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

3 HAZARDS IDENTIFICATION

Emergency Overview
Various color pellets with mild odor
CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.
MAY CAUSE 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.
4 FIRST AID MEASURES

IF IN EYES, immediately flush with plenty of water. Get medical attention if irritation persists.

IN CASE OF 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.

IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

5 FIRE FIGHTING MEASURES

Fire and Explosive Properties
Auto-Ignition Temperature 393 C/739 F
Flash Point NA
Flammable Limits - Upper NA
                   Lower NA

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.

6 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.

7 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.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION
8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls
Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Eye / Face Protection
Use good industrial practice to avoid eye contact.

Skin Protection
Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling.

Respiratory Protection
Avoid breathing dust. When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Airborne Exposure Guidelines for Ingredients

<table>
<thead>
<tr>
<th>Exposure Limit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl acrylate</td>
<td></td>
</tr>
<tr>
<td>ACGIH STEL</td>
<td>-</td>
</tr>
<tr>
<td>ACGIH TWA</td>
<td>-</td>
</tr>
<tr>
<td>OSHA Skin designator</td>
<td>-</td>
</tr>
<tr>
<td>OSHA TWA PEL</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>15 ppm; 61 mg/m3</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td></td>
</tr>
<tr>
<td>ACGIH TWA</td>
<td>-</td>
</tr>
<tr>
<td>OSHA TWA PEL</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>100 ppm 410 mg/m3</td>
</tr>
</tbody>
</table>

-Only those components with exposure limits are printed in this section.
-Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.

9 PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/Odor</td>
<td>Various color pellets with mild odor</td>
</tr>
<tr>
<td>pH</td>
<td>NA</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.15 to 1.19</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>NA</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>NA</td>
</tr>
<tr>
<td>Melting Point</td>
<td>132 C/270 F</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>NA</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>NA</td>
</tr>
<tr>
<td>Solubility In Water</td>
<td>NA</td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>0</td>
</tr>
</tbody>
</table>
10 STABILITY AND REACTIVITY

Stability
This material is chemically stable under normal and anticipated storage and handling conditions.

Hazardous Polymerization
Does not occur.

Incompatibility
Prolonged contact with acids, alkalies and strong oxidizing agents may attack or dissolve the polymer.

Hazardous Decomposition Products
Thermal decomposition may yield acrylic monomers.

11 TOXICOLOGICAL INFORMATION

Toxicological Information
No data are available.

12 ECOLOGICAL INFORMATION

Ecotoxicological Information
No data are available.

Chemical Fate Information
No data are available.

13 DISPOSAL CONSIDERATIONS

Waste Disposal
Incineration is the recommended method for disposal observing all local, state and federal regulations.

14 TRANSPORT INFORMATION

DOT Name Not Regulated
DOT Technical Name
DOT Hazard Class
UN Number
DOT Packing Group PG
RQ

15 REGULATORY INFORMATION
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Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)
Immediate (Acute) Health  Y  Fire  N
Delayed (Chronic) Health  N  Reactive  N
                     Sudden Release of Pressure  N

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

Ingredient Related Regulatory Information:

SARA Reportable Quantities

<table>
<thead>
<tr>
<th>Ethyl acrylate</th>
<th>CERCLA RQ</th>
<th>SARA TPQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 LBS</td>
<td></td>
<td>NE</td>
</tr>
</tbody>
</table>

Methyl methacrylate
P(EA/MMMA)

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 86 and 40 CFR Part 372. See Section 2.

Ethyl acrylate
Methyl methacrylate

California Prop 65 - Carcinogen
This product does contain the following chemical(s), as indicated below, currently on the California list of Known Carcinogens.

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

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

Pennsylvania Right to Know
This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Hazardous Substance List.

Ethyl acrylate
Methyl methacrylate

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

Ethyl acrylate

16 OTHER INFORMATION
PLEXIGLAS (R) V-GRADE Acrylic Resin
-Material Safety Data Sheet-
Elf Atochem North America, Inc.

Revision Information
Revision Date: 13 JAN 2000
Supersedes Revision Dated: 05-OCT-1999
Revision Number: 4

Revision Summary

Key
NE= Not Established  NA= Not Applicable  (R)= Registered Trademark

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