

Uncoated Plexiglas Bullet Resistant Acrylic SDS

1. HAZARDS IDENTIFICATION

Emergency Overview

Color: colourless
Physical state: solid
Form: sheets
Odor: odourless

*Classification of the substance or mixture:

Not a hazardous substance or mixture.

GHS-Labeling

Supplemental Hazard Statements:

Processing may release vapors and/or fumes which cause eye, skin and respiratory tract irritation.

Supplemental information:

Potential Health Effects:

The product, in the form supplied, is not anticipated to produce significant adverse human health effects. Contains high molecular weight polymer(s). Effects due to processing releases or residual monomer: Irritating to eyes, respiratory system and skin. Prolonged or repeated exposure may cause: headache, drowsiness, nausea, weakness, (severity of effects depends on extent of exposure).

Other:

Handle in accordance with good industrial hygiene and safety practice. (sheets) Secondary operations, such as grinding, sanding or sawing, can produce dust which may present a respiratory hazard. This product may release fume and/or vapor of variable composition depending on processing time and temperature.



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2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
Acrylic copolymer	Proprietary*	>= 99 - <= 100 %	Not classified
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	<= 2 %	H225, H315, H317, H335

*The specific chemical identity is withheld because it is trade secret information of Arkema Inc.

**For the full text of the H-Statements mentioned in this Section, see Section 16.

3. FIRST AID MEASURES

Inhalation:

If inhaled, remove victim to fresh air.

Skin:

In case of contact, immediately flush skin with plenty of water. If molten polymer gets on the skin, cool rapidly with cold water. Do not peel solidified product off the skin. Obtain medical treatment for thermal burns. Remove material from clothing. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes:

Immediately flush eye(s) with plenty of water. Obtain medical treatment for thermal burns.

Ingestion:

If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

4. FIREFIGHTING MEASURES

Extinguishing media (suitable):

Water spray, Carbon dioxide (CO₂), Foam, Dry chemical

Protective equipment:

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).

Further firefighting advice:

Fire fighting equipment should be thoroughly decontaminated after use.

Fire and explosion hazards:

When burned, the following hazardous products of combustion can occur:

Carbon oxides

Hazardous organic compounds



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5. ACCIDENTAL RELEASE MEASURES

In case of spill or leak:

Pick up and transfer to properly labelled containers. 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.

6. HANDLING AND STORAGE

Handling

General information on handling:

Avoid breathing dust.

Avoid breathing processing fumes or vapors.

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin, and clothing.

Storage

General information on storage conditions:

Avoid extreme temperatures. Keep in a dry, cool place.

Storage incompatibility – General:

Store away from sources of heat and light.

7. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Guidelines:

Particles Not Otherwise Specified / Nuisance Dust (Proprietary)

US. ACGIH Threshold Limit Values

Form:	Inhalable particles.
Time weighted average	10 mg/m ³
Form:	Respirable particles.
Time weighted average	3 mg/m ³

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Form:	Respirable fraction.
PEL:	5 mg/m ³
Form:	Total dust
PEL:	15 mg/m ³

US. OSHA Table Z-3 (29 CFR 1910.1000)

Form:	Respirable fraction.
Time weighted average	15 millions of particles per cubic foot of air
Form:	Total dust
Time weighted average	50 millions of particles per cubic foot of air
Form:	Respirable fraction.
Time weighted average	5 mg/m ³
Form:	Total dust
Time weighted average	15 mg/m ³



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Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.

Engineering controls:

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

Respiratory protection:

Avoid breathing dust. Avoid breathing processing fumes or vapors. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components and substances released during processing. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or 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.

Skin protection:

Processing of this product releases vapors or fumes which may cause skin irritation. Minimize skin contamination by following good industrial hygiene practice. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after contact with processing fumes or vapors. Wash thoroughly after handling.

Eye protection:

Use good industrial practice to avoid eye contact. Processing of this product releases vapors or fumes which may cause eye irritation. Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.



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8. PHYSICAL AND CHEMICAL PROPERTIES

Color:	colourless
Physical state:	solid
Form:	sheets
Odor:	odourless
Odor threshold:	No dataavailable
Flash point	Not applicable
Auto-ignition temperature:	860 °F (460 °C)
Lower flammable limit (LFL):	Not applicable
Upper flammable limit (UFL):	Not applicable
pH:	Not applicable
Density:	Not applicable
Specific Gravity (Relative density):	Not applicable
Vapor pressure:	Not applicable
Vapor density:	Not applicable
Evaporation rate:	No dataavailable
Solubility in water:	Not applicable
Oil/water partition coefficient:	No data available
Thermal decomposition	> 572 °F (> 300°C)
Flammability:	See GHS Classification in Section 2



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9. STABILITY AND REACTIVITY

Stability:

The product is stable at normal handling and storage temperatures.

Materials to avoid:

None under normal conditions of use.

Conditions / hazards to avoid:

Avoid flames, welding arcs, potential ignition sources, or other high temperature sources which induce thermal decomposition.

Hazardous decomposition products:

Thermal decomposition giving flammable and toxic products:

Carbon oxides

Acrylates

Methacrylates

Hazardous organic compounds

10. TOXICOLOGICAL INFORMATION

Data on this material and/or a similar material are summarized below.

Data for Acrylic copolymer (Proprietary)

Acute toxicity

Oral:

Practically nontoxic. (Rat) LD50 = 8,000 mg/kg. (similar material)

Genotoxicity

Assessment in Vitro:

No genetic changes were observed in laboratory tests using: bacteria, human cells

Genotoxicity

Assessment in Vivo:

No genetic changes were observed in laboratory tests using: animals

Other information

Biocompatibility testing for this polymer or its extracts has generally shown that the material is inert.

The information presented is from representative materials with this Chemical Abstract Service (CAS) Registry number. 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

Human experience

Skin contact:

Skin: Irritant but not a sensitizer. Mechanical irritation. (studied using human volunteers)



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11. ECOLOGICAL INFORMATION

Chemical Fate and Pathway

No data are available.

Ecotoxicology

No data are available.

12. DISPOSAL CONSIDERATIONS

Waste disposal:

Where possible recycling is preferred to disposal or incineration. If recycling is not an option, incinerate or dispose of in accordance with federal, state, and local regulations. Pigmented, filled and/or solvent laden product may require special disposal practices in accordance with federal, state and local regulations. 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. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

13. TRANSPORT INFORMATION

US Department of Transportation (DOT): not regulated

International Maritime Dangerous Goods Code (IMDG): not regulated

14. REGULATORY INFORMATION

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)	Conforms to
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	Conforms to
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	Conforms to



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Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	Conforms to
Australia Inventory of Chemical Substances (AICS)	AICS	Conforms to

United States – Federal Regulations

SARA Title III – Section 302 Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III - Section 311/312 Hazard Categories:

No SARA Hazards

SARA Title III – Section 313 Toxic Chemicals:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Reportable quantity</u>
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	1000 lbs

United States – State Regulations

New Jersey Right to Know

No components are subject to the New Jersey Right to Know Act.

Pennsylvania Right to Know

<u>Chemical Name</u>	<u>CAS-No.</u>
Acrylic copolymer	Proprietary

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

15. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

