

Athlone Extrusions

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Health & Safety Sheet – PMMA
(Issue A. 12-03)

Section 1: Identification of the substance and the company

- 1.1 Substance: Impact modified Acrylic
- 1.2 Company: Athlone Extrusions LTD
Address: Grace Road
Athlone, Co. Westmeath
Ireland
Telephone: +353 9064 92679

Section 2: Composition/information on ingredients

- 2.1 Composition: Methyl methacrylate (MMA) and Ethyl acrylate (EA) copolymer
Acrylic/styrene rubber
Additives
- 2.2 Hazardous impurities:
Methyl methacrylate, <0.7%

Section 3: Hazard identification

Physical and chemical hazards:
Thermal decomposition giving flammable and irritating products.
Formation of toxic products through combustion

Section 4: First aid measures

General advice:

On contact with hot product, shower immediately, rapidly taking off all contaminated clothing whilst under the shower, washing abundantly and thoroughly with water.

- 4.1 If inhaled:
Remove particles from respiratory system. Blow nose.
Inhalation of vapours due to thermal decomposition: move to fresh air.
In case of persistent problems: consult a doctor.
- 4.2 On skin contact:
Cool skin rapidly with cold water after contact with molten polymer.
If skin irritation persists, call a doctor.
In case of extensive burns, hospitalise.
- 4.3 On contact with eyes:
Remove particles remaining under the eyelids. Wash well open eyes immediately, abundantly and thoroughly with water. If irritation persists, consult an ophthalmologist.
- 4.4 On ingestion:
In case of problems, consult a doctor.
- 4.5 Protection of first aiders:
In case of insufficient ventilation, wear suitable respiratory equipment.

Section 5: Fire fighting measures

- 5.1 Specific hazards with regard to fire-fighting measures:
Depolymerisation begins at 280°C.
Thermal decomposition giving flammable and irritating products:
Methylacrylates, acrylates, styrene, formation of toxic products through combustion: carbon monoxide, carbon dioxide
Dust may form explosive mixture in air.
- 5.2 Extinguishing Media:
In case of fire, various kinds of fire extinguishers may be used, water spray, foam, dry chemical powder or carbon dioxide.
- 5.3 Specific methods:
In case of fire nearby, remove the bags.
- 5.4 Special protective equipment for firefighters
In case of fire, wear a self-contained breathing apparatus.

Section 6: Accidental release measures

- 6.1 Personal protection:
Sweep up to prevent hazard of slipping. Do not breathe vapours/dust.
- 6.2 Environmental protection:
Do not release into the environment. Do not let the product enter into drains
- 6.3 Methods for cleaning up:
Shovel or sweep up.

Section 7: Handling and storage

- 7.1 Handling:
Ensure appropriate exhaust and ventilation at machinery and at places where dust can be generated.
Avoid dust formation.
Avoid accumulation of static charges.
Prohibit ignition sources near the point where containers are opened. Do not smoke.
- 7.2 Storage:
Store protected from moisture and heat.
Wash the premises regularly with water.
Provide electrical earthing of equipment and electrical equipment usable in explosive atmospheres.
Packaging materials recommended:
Polyethylene, cardboard lined with polyethylene liner
In bulk: stainless steel

Section 8: Exposure controls/personal protection

- 8.1 Protective provisions:
Ensure ventilation of work areas and extraction of dust or vapours likely to be given off during conversion operations.
- 8.2 Control parameters:
Exposure limits:

UK HSE EH40/2000:
Long term exposure limit (8 hour TWA reference period) = 10mg/m³ Total Inhalable Dust.
Long term exposure limit (8 hour TWA reference period) = 4mg/m³ Total Respirable Dust

France 1999:
VME = 10mg/m³

USA-ACGIH 1998:
TLV-TWA = 3mg/m³
- 8.3 Personal protective equipment:
Respiratory protection: In case of dust formation, wear a dust mask.

Eye protection:
Wear protective eyeglasses or chemical safety goggles.

Hand protection:
Wear suitable gloves.

Specific hygiene measures:
Do not breathe vapours/dust.

Section 9: Physical and chemical properties

- 9.1 Form: Solid (pellets)
9.2 Colour: Translucent, coloured or colourless
9.3 Density: 1140 – 1190 kg/m³

9.4	Bulk density:	350 – 750 kg/m ³
9.5	Solubility in water:	Insoluble (20°C)
9.6	Solubility in other solvents:	soluble in Chlorinated solvents, Aromatic solvents, Aldehydes, Ketones, Esters,
9.7	Decomposition temp.	>250°C
9.8	Auto-ignition temp.	400°C approx
9.9	Flash point:	>220°C
10.0	Other data:	Softening point VICAT B: 84 – 109°C

Section 10: Stability and reactivity

- 10.1 Conditions to avoid:
Store protected from moisture and heat.
Remove all sources of ignition.
- 10.2 Hazardous decomposition products:
Depolymerization begins at 250°C
Thermal decomposition giving flammable and irritating products:
Methacrylates, Acrylates, Styrene.
Formation of toxic products through combustion: carbon monoxide, carbon dioxide (CO₂).
- 10.3 Further Information:
Dust may form explosive mixture in air.

Section 11: Toxicological information

- 11.1 Acute toxicity:
Polymer: According to its composition, this product should not be harmful in normal conditions of use.
- 11.2 Inhalation:
Can be considered as:
Practically not harmful by inhalation.
Inhalation of vapours due to thermal decomposition:
Irritating to respiratory system.
- 11.3 Skin contact:
Can be considered as:
Practically not harmful in contact with skin.
- 11.4 Local Effects:
Inhalation:
At high temperature, products of thermal decomposition can be irritating to respiratory system.

Skin-contact:
Non-irritating to skin.
Contact with the product, when handled at high temperatures, can cause serious burns.

Eye-contact:
Dusts:
(physical action)
Irritating to eyes.
Products of thermal decomposition are irritating to eyes
- 11.5 Sensitization:

Skin-contact:
Not a skin sensitizer

Section 12: Ecological information

12.1 Persistence/degradability (in water):
Inert polymer.
Not biodegradable on the basis of its structure.

Section 13: Disposal considerations

13.1 Destroy packaging by incineration at an approved waste disposal site.

Section 14: Transport information

14.1 Not regulated under the following:
ADR/RID, IMDG, IATA

Section 15: Regulatory information

15.1 EC classification /labelling dangerous preparations:
Not classified as dangerous

15.2 Classification/labelling inventories
EINECS (EU) conforms

Other regulatory requirements in accordance with national legislation/regulations.

Section 16: Other information

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties.

Recipients of our product must take responsibility for observing existing laws and regulations.