



## Perspex Cast Acrylic Sheet Safety Sheet

### 1. Product

Trade Name: Perspex Cast Acrylic Sheet Opaque Colours

### 2. Composition / Information on Ingredients

#### Product Description:

Opaque coloured sheet.

A high molecular weight acrylic sheet used in a wide range of applications.

Polymethyl methacrylate: greater than 90%.

Some coloured grades will contain heavy metal based pigments e.g. Cobalt and cadmium.

CAS No: 009011-14-7

Hazardous Ingredients	CAS No	EC No	EC Classification
No classifiable hazardous ingredient(s).			

### 3. Hazard Identification

Low toxicity under normal conditions of handling and use. Thermal decomposition will evolve toxic, irritant and flammable vapours. Care should be taken during thermoforming to ensure that the product is not exposed to temperatures exceeding 200°C.

Certain machining operations e.g. laser cutting, can give rise to toxic and corrosive fumes. Adequate ventilation MUST be used.

### 4. First Aid Measures

Inhalation:	Remove patient from exposure, keep warm and at rest. Obtain medical attention if ill effects occur.
Skin Contact:	Wash skin with soap and water. If symptoms develop, obtain medical attention.
Eye Contact:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion:	Do not induce vomiting. Obtain medical attention if ill effects occur.
Further Medical Treatment:	Symptomatic treatment and supportive therapy as indicated.

### 5. Fire Fighting Measures

Combustion will evolve toxic, irritant and flammable vapours.

Extinguishing Media: Water spray, foam, dry powder or CO<sub>2</sub>.

Fire Fighting Protective Equipment: A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

### 6. Accidental Release Measures

Offcuts, swarf or dust should be collected and disposed of in a safe way.



## 7. Handling & Storage

### 7.1. Handling

These sheets are heavy and unwieldy. They should be handled with care, particularly in windy locations or outdoors. If broken or chipped the resultant edges can be sharp and cause cuts to skin and eyes. Take precautionary measures against static discharges.

#### Process Hazards

All polymers degrade to some extent at their processing temperature, an effect which increases with increasing temperature. Under normal conditions where thermoforming temperatures will not exceed 200°C thermal decomposition products will include methyl methacrylate and 2-ethylhexyl acrylate. 2-ethylhexyl acrylate has an objectionable odour with an odour threshold of 65-175 ppb. Certain machining operations e.g. laser cutting, can give rise to toxic and corrosive fumes. Adequate ventilation MUST be used.

### 7.2. Storage

Keep away from heat - Store vertically on A-frames.

Storage Temperature: Below 40°C

Storage Life: Indefinite under specified storage conditions

## 8. Exposure Control / Personal Protection

Provide adequate ventilation, including appropriate local extraction if dusts, fumes or vapours are likely to be evolved. Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

Local extraction close to the cutting head must be used when laser cutting. Where suitable engineering controls are not fitted or are inadequate, wear suitable protective equipment.

The following information is given as general guidance –

Respirators:

Normal Handling: Not normally required.

Processing: Dust; a suitable dust mask or dust respirator with filter type P may be appropriate.

Vapour: If high levels above the occupational exposure limit are likely, a suitable mask with filter type A may be appropriate.

Eye Protection: Wear eye/face protection. Safety spectacles/goggles/full face shield.

Gloves: Sharp edges may cause cuts. Wear suitable gloves.

Other: Wear suitable protective clothing. For information regarding process hazards refer to section 7, handling & storage.

### Hazardous Ingredient(s)

LTEL 8hr TWA	LTEL 8hr TWA	STEL	STEL	Notes
ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
50	208	100	416	OES



# Bay Plastics Safety Sheet

## 9. Physical & Chemical Properties

Form:	Sheet
Colour:	Clear
Odour:	Odourless
pH Value:	Not Applicable
Boiling Point (°C):	Not Applicable
Melting Point (°C):	Not Applicable
Flash Point (°C):	11.5 (MMA) Sheet has no flash point.
Flammable Limits:	Not Applicable
Auto Ignition Temp (°C):	421 (MMA)
Explosive Properties:	Not Explosive
Oxidising Properties:	Not Oxidising
Vapour Pressure (Pascals):	Not Applicable
Density:	1.19
Solubility (Water):	Insoluble
Solubility (Other):	Soluble in most organic solvents, acetone and chlorinated hydrocarbons.
Partition Coefficient:	Not Applicable.
Decomposition Temp (°C):	Will not decompose below 200°C.
Freezing Point (°C):	Not Applicable.
Softening Point (°C):	>100

## 10. Stability & Reactivity

Hazardous Reactions:	None known.
Hazardous Decomposition Products:	Methyl methacrylate, traces of Acrolein.

## 11. Toxicological Information

Inhalation:	Unlikely route of exposure.
Skin Contact:	No evidence of irritant effects from normal handling and use. Sharp edges may cause cuts.
Eye Contact:	Swarf or dust may cause irritation. Sharp off-cuts may cause eye damage.
Ingestion:	Unlikely to be hazardous if swallowed.
Long Term Exposure:	No known hazards are associated with the use of this material.



## 12. Ecological Information

This environment hazard assessment is based on information available on similar products.

### **Environmental Fate & Distribution**

Medium tonnage material used in partially contained systems. Solid with low volatility. The product is essentially insoluble in water. The product has low potential for bioaccumulation. The product has low mobility in soil. Heavy metal based pigments will not leach from waste material.

### **Persistence & Degradation**

The product is non-biodegradable in soil. There is no evidence of degradation in soil and water.

### **Toxicity**

The product is predicted to have low toxicity to aquatic organisms.

### **Effect on Effluent Treatment**

Unlikely to have an effect on effluent treatment systems. The material is essentially insoluble in water and can therefore be separated from aqueous medium by sedimentation and filtration processes at an effluent treatment plant.

## 13. Disposal Considerations

Disposal should be in accordance with local, state or national legislation. Incineration may be used to recover energy value. Bury on an authorised landfill site or incinerate under approved controlled conditions, using incinerators suitable for the disposal of noxious chemical waste. Large quantities of waste may be recoverable.

## 14. Transport Information

Not classified as Dangerous for Transport.

## 15. Regulatory Information

Not classified as Dangerous for Supply/Use.

EC Classification: Under the Classification, Packing and Labelling of Dangerous Substances Regs, 1984, this material is not dangerous for supply or conveyance.