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**MATERIAL SAFETY DATA SHEET**

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**PERSPEX CAST ACRYLIC SHEET: CLEARS  
AND TRANSPARENTS**Revision Date: 00/11/2002

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**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING**

- 1.1 PRODUCTS IDENTIFICATION: PERSPEX CAST ACRYLIC SHEET: CLEARS AND TRANSPARENTS**
- 1.2 USE OF SUBSTANCE:** Information not supplied
- 1.3 COMPANY:** Lucite International  
PO Box 34  
Darwen  
Lancashire  
BB3 1QB  
United Kingdom  
Tel: +44 (0)1254 874000
- 1.4 EMERGENCY TELEPHONE:** 01642 452461

**2. HAZARDS 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 eg laser cutting, can give rise to toxic and corrosive fumes. Adequate ventilation **MUST** be used.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****PRODUCT DESCRIPTION**

Clear or transparent tinted sheet.

A high molecular weight acrylic sheet used in a wide range of applications. Does not include PERSPEX AS 017.

Polymethyl methacrylate : greater than 90%.

CAS No: 009011-14-7

<b>HAZARDOUS INGREDIENT(S)</b>	<b>CAS No.</b>	<b>EC No.</b>	<b>EC Classification</b>
No classifiable hazardous ingredient(s)			

**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.

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**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 AND 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.

Certain machining operations eg 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 CONTROLS/PERSONAL PROTECTION**

Provide adequate ventilation, including appropriate local extraction if dusts, fumes or vapours are likely to be evolved.

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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. (EN141/EN143).

Vapour: If high levels above the Occupational Exposure Limit are likely - A suitable mask with filter type A may be appropriate. (EN141/EN143).

**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 and Storage.

The following values apply to substances which may be evolved during thermal processing.

HAZARDOUS INGREDIENT(S)	LTEL 8hr TWA ppm	LTEL 8hr TWA mg/m <sup>3</sup>	STEL ppm	STEL mg/m <sup>3</sup>	NOTES
Methyl methacrylate	50	208	100	416	OES

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form:	sheet
Colour:	clear or coloured
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 Temperature (°C):	421 (MMA).
Explosive Properties:	Not explosive
Oxidising Properties:	Not oxidising.
Vapour Pressure (mm Hg):	Not applicable.
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 Temperature (°C):	Will not decompose below 200°C.

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Freezing Point (°C):	Not applicable.
Softening Point (°C):	>100
Viscosity (mPa.s):	solid

**10. STABILITY AND REACTIVITY**

Hazardous Reactions: None known.  
Hazardous Decomposition Product(s): 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 environmental hazard assessment is based on information available on similar products.  
Some coloured grades will contain heavy metal based pigments eg Cobalt and cadmium.

**Environmental Fate and 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 and 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.

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**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. Contact supplier for specialised advice.

**14. TRANSPORT INFORMATION**

Not Classified as Dangerous for Transport.

**15. REGULATORY INFORMATION**

Not Classified as Dangerous for Supply/Use.

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

**16. OTHER INFORMATION**

This data sheet was prepared in accordance with Directive 2001/58/EC.

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