SAFETY DATA SHEET

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name: PERSPEX® CAST ACRYLIC SHEET

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use(s): Various fabrication applications.

Uses advised against: This material is not for human implantation.

1.3 Details of the supplier of the safety data sheet

Perspex International, Orchard Mill, Duckworth Street, Darwen, Lancashire, BB3 1AT, United Kingdom Tel: +44 (0)1254 874000

msdsinfo@perspex.com

1.4 Emergency telephone number

Not applicable

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

2.2 Label elements

Not applicable.

2.3 Other hazards

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.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

According to Regulation (EC) No. 1272/2008 (CLP).

Hazardous Ingredient(s)	%W/W	EC No.	REACH Registration No.	Hazard Class and Category Code(s)	Hazard statement Code(s)
No classifiable hazardous ingredient(s).					

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Dust or fumes from fabrication operations may cause irritation.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN: Wash with plenty of water/… If skin irritation occurs: Get medical attention.

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: Low oral toxicity. Do not induce vomiting. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Not applicable.

4.3 Indication of any immediate medical attention and special treatment needed

None necessary.

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media: Water spray, foam, dry powder or CO_2
Unsuitable Extinguishing Media: None.

5.2 Special hazards arising from the substance or mixture

Combustion will evolve toxic, irritant and flammable vapours.

5.3 Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

See Section: 8, 13

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe 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. 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. Local exhaust ventilation and/or respiratory protective equipment should be used. Certain machining operations e.g. laser cutting, can give rise to toxic and corrosive fumes. Adequate ventilation MUST be used.

7.2 Conditions for safe storage, including any incompatibilities

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

Storage temperature	< 40°C
Storage life	Indefinite under specified storage conditions.
Incompatible materials:	Soluble in most organic solvents, acetone and chlorinated hydrocarbons

7.3 Specific end use(s)

Various fabrication applications.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

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

Substance	CAS No.	LTEL ppm (8Hr TWA)	LTEL mg/m³ (8Hr TWA)	STEL ppm	STEL mg/m³	Notes
Methyl methacrylate	000080-62-6	50	208	100	416	WEL, IOELV

8.2 Exposure controls

Appropriate engineering controls

Do not eat, drink or smoke at the work place.
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.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear eye/face protection. Safety spectacles/goggles/full face shield.

Skin protection

Wear protective gloves. Sharp edges may cause cuts.

Respiratory protection

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).

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	Sheet
Colour.	Clear or coloured
pH (Value)	Not applicable.
Freezing Point (°C)	Not applicable.
Boiling Point (°C)	Not applicable.
Flash Point (°C)	10 (MMA) Sheet has no flash point.
Relative Evaporation Rate (Ether = 1)	Not applicable.
Flammable Limits	Not applicable.
Vapour pressure (Pascal)	Not applicable.
Vapour Density (Air=1)	Not applicable.
Solubility (Water)	Insoluble.
Solubility (Other)	Soluble in most organic solvents, acetone and chlorinated hydrocarbons
Partition Coefficient (n-Octanol/water)	Not applicable.
Auto Ignition Temperature (°C)	421 (MMA)
Viscosity (mPa. s)	Solid.
Explosive properties	Not explosive.
Oxidising Properties	Not oxidising.
Density (g/ml)	1.19

9.2 Other information

Softening Point (°C)	>100

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Non-reactive material.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

Keep away from heat.

10.5 Incompatible materials

Soluble in most organic solvents, acetone and chlorinated hydrocarbons

10.6 Hazardous decomposition product(s)

Methyl methacrylate, traces of Acrolein.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

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

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

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

12.2 Persistence and degradability

The product is non-biodegradable in soil.

12.3 Bioaccumulative potential

The product has low potential for bioaccumulation.

12.4 Mobility in soil

The product has low mobility in soil.

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6 Other adverse effects

None known.

13. SECTION 13: DISPOSAL CONSIDERATIONS

The waste is considered to be non hazardous. Large quantities of waste may be recoverable. Contact supplier for specialised advice.

13.1 Waste treatment methods

Disposal should be in accordance with local, state or national legislation. May be disposed of by landfill in accordance with local regulations. Incineration may be used to recover energy value. Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

14. SECTION 14: TRANSPORT INFORMATION

14.1 UN number

Not applicable.

14.2 UN Proper Shipping Name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

15. SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This product is an Article and as such Article 31 (Requirements for Safety Data Sheets) of Regulation (EC) No 1907/2006 does not apply.

Directive 2009/161/EU (third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC).

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this substance/mixture.

16. SECTION 16: OTHER INFORMATION

Date of preparation:	2 -June- 2014
The following sections contain revisions or new statements:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16

LEGEND

Note Not all of the following are necessarily contained in this Safety Data Sheet:
IOELV: Indicative Occupational Exposure Limit Value
WEL: Workplace Exposure Limit (UK HSE EH40)
Bmgv: Biological Monitoring Guidance Value
Sen: Capable of causing respiratory sensitisation
Sk: Can be absorbed through skin
Carc: Capable of causing cancer and/or heritable genetic damage
CHAN: Chemical Hazard Alert Notice
COM: The company aims to control exposure in its workplace to this limit
LTEL: Long Term Exposure Limit
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
STOT SE: Specific Target Organ Toxicity - Single Exposure
Repr.: Reproductive toxicity
Aquatic acute/chronic: Hazardous to the aquatic environment

Perspex International does not recommend this product for use in applications involving long-term contact with body tissues.

PERSPEX® acrylic sheets are generally suitable for use in applications involving food contact however, regulations are known to vary from country to country. If statements on the compliance of any grades of PERSPEX® acrylic sheet with specific food contact regulations are required, please contact Perspex International for further details.

It is the responsibility of the end-product manufacturer to identify all market and use-specific regulations and to ensure compliance with these regulations.

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