SAFETY DATA SHEET

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

PRODUCT NAME	ELVACITE® 4055
Product Description	Isobornyl methacrylate rich copolymer.
Use of Substance / Preparation:	Manufacture of inks, paints and varnishes.
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2. HAZARDS IDENTIFICATION

EC Classification Not Classified as Dangerous for Supply/Use.

Combustible but not readily ignited.
Low toxicity under normal conditions of handling and use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.

HAZARDOUS INGREDIENT(S)	%W/W	CAS No.	EC No.	EC Classification
No classifiable hazardous ingredient(s).				

4. FIRST AID MEASURES

Inhalation	Remove patient from exposure. Obtain medical attention if ill effects occur.
Skin Contact	Wash skin with water. If symptoms (irritation or blistering) occur obtain medical attention.
Eye Contact	Remove particles by irrigating with eye wash solution or clean water, holding the eyelids apart. Obtain medical attention.
Ingestion	Do not induce vomiting. Wash out mouth with water. Obtain medical attention if ill effects occur.
Further Medical Treatment	Symptomatic treatment and supportive therapy as indicated.

5. FIRE-FIGHTING MEASURES

Combustible but not readily ignited. By analogy with similar materials, the product may decompose if heated to temperatures above 200°C.
Combustion or thermal decomposition will evolve toxic, irritant and flammable vapours.
Incompatible materials: None known.

Extinguishing Media	Water spray, foam, dry powder or CO2.
Fire Fighting Protective Equipment	A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Caution - spillages may be slippery. Sweep up and shovel into waste drums or plastic bags. Wash the spillage area with water.

7. HANDLING AND STORAGE

HANDLING	Product as supplied: Avoid contact with eyes. Avoid prolonged skin contact. Unlikely to represent a dust hazard under normal handling conditions.
Process Hazards	The product may be suitable for a wide range of industrial applications and therefore it is impossible to make detailed recommendations regarding all process hazards. Thermal processing requires adequate ventilation to remove any monomer decomposition products, and use of inert atmosphere may be required in some processes to safely decompose the resin when it is used as a binder. Any thermal processing must consider the time-temperature decomposition of the resin. If the product is to be used in applications for which the hazards are not fully understood it is recommended to consult the supplier before use.
STORAGE	Acrylic polymers are supplied in either bags or bulk containers. Keep containers in a clean, cool and dry area away from heat sources. Natural ventilation is adequate.
Storage Temperature	Ambient.
Specific use	Dispersions and inks. Not intended for thermal processing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Provide adequate ventilation, including appropriate local extraction, to ensure that the occupational exposure limit is not exceeded. 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. The following information is given as general guidance.

Respirators

A suitable dust mask or dust respirator with filter type P may be appropriate. In the unlikely event of formation of particularly high levels of dust a self contained breathing apparatus may be appropriate.

Eye Protection

Safety spectacles/goggles/full face shield.

Gloves

Not normally required.

Other

Wear suitable protective clothing. For information regarding process hazards refer to Section 7, Handling and Storage.

Occupational exposure limits

Substance	CAS No.	LTEL ppm (8Hr TWA)	LTEL mg/m3 (8Hr TWA)	STEL ppm	STEL mg/m3	Notes
Dust (total inhalable dust) (respirable dust)			10 4			
The following values apply to substances which may be evolved during thermal processing.						
Methyl methacrylate						
Isobornyl methacrylate						

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Beads.
Colour	White.
Odour	Typically methacrylate.
pH (Value)	Not available.
Boiling Point (°C)	Not applicable.
Flash Point (°C)	Not available.
Flammable Limits	Not applicable.
Explosive Properties	Not applicable.
Oxidising Properties	Not applicable.
Vapour Pressure (Pascal)	Not applicable.
Solubility (Water)	Negligible.
Solubility (Other)	Not available.
Partition Coefficient (n-Octanol/water)	Not applicable.
Viscosity (mPa.s)	Not available.
Vapour Density (Air=1)	Not applicable.
Specific Gravity	1.18
Relative Evaporation Rate (Ether = 1)	Not applicable.

10. STABILITY AND REACTIVITY

Hazardous Reactions	None known.
Hazardous Decomposition Product(s)	Methyl methacrylate, Isobornyl methacrylate, Carbon dioxide, Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Inhalation	Unlikely to be hazardous by inhalation.
Skin Contact	Unlikely to cause skin irritation. Contains greater than 0.1% residual (Methyl methacrylate, Isobornyl methacrylate). During normal handling this will not constitute a hazard. If the polymer matrix is destroyed e.g. when the product is dissolved in organic solvent, chemical residues will be released from the polymer matrix. Under these conditions, they may produce an allergic reaction in persons already sensitised.
Eye Contact	Dust may cause irritation.
Ingestion	Low oral toxicity.
Long Term Exposure	This type of material has been in use for many years with no evidence of adverse effects.

12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution	High tonnage material produced in partially contained systems. Solid with low volatility. The product is essentially insoluble in water. The product has low potential for bioaccumulation. The product is predicted to have low mobility in soil.
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	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

The waste is considered to be non hazardous. Clean scrap may be reprocessed. Incineration may be used to recover energy value. May be disposed of by landfill in accordance with local regulations. Certain packages are returnable. Please consult your local office for further details. Ensure that all packaging is disposed of safely.

14. TRANSPORT INFORMATION

Not Classified as Dangerous for Transport.

15. REGULATORY INFORMATION

EC Classification Not Classified as Dangerous for Supply/Use.

16. OTHER INFORMATION

This Safety Data Sheet was prepared in accordance with Directive 2001/58/EC.

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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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The following sections contain revisions or new statements: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.

GLOSSARY

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