MATERIAL SAFETY DATA SHEET - MASTIC

SECTION 1: MATERIAL AND SUPPLIER IDENTIFICATION

Product name:	**Styrene (Muros Mastic)**
Chemical name:	Unsaturated polyester resin based filler compound
Application/ Use:	A mouldable filler compound used when installing Muros Wall Panels (to create joints and cover screw heads)
Company name:	Muros International Limited
Address:	Suite 9, 349 Remuera Office Suites, Remuera, Auckland 1050 PO Box 90239, Victoria Street West, Auckland 1142, New Zealand
Contact:	Tel +64-9-523 3433 Email design@muros.co.nz
Emergency contact: *(in case of poisoning)*	National Poisons Centre **Tel 0800-764 766 (NZ) / 13 11 26 (Australia)**

SECTION 2: HAZARDS IDENTIFICATION

Classified as Hazardous under the Hazardous Substances and New Organisms Act (1996)

Hazard	**Risk**
Flammable (4.1)	Flammable solid
Toxic	
6.1D	Toxic by ingestion
6.3A	Skin irritant
6.4A	Eye irritant

Several other toxic classifications (6.6B, 6.7B, 6.8B, 6.9A) are to be re-assessed by the Environmental Risk Management Authority.

Ecotoxic	**Risk**
9.1B	Harmful to aquatic organisms

SECTION 3: INFORMATION ON HAZARDOUS COMPONENTS

Component	**CAS No**	**Proportion**	**Threshold Limit Value**
Styrene	100-42-5	19 - 22%	50ppm

SECTION 4: FIRST AID MEASURES

Ingestion
Harmful if swallowed. Single dose oral toxicity is low. Do not induce vomiting. Aspiration of material into lungs could cause pneumonitis which can be fatal. Give milk or water. Seek immediate medical attention.

Inhalation of Vapour
Harmful. Effects may include headache, nausea, fatigue, central nervous system depression, pulmonary oedema. May be irritating to nose, throat and respiratory tract. Move patient to fresh air. Apply artificial respiration or give oxygen if necessary. Seek immediate medical attention.

Eye contact
Irritant. Flush with large amounts of water for 15 minutes – lift eyelids repeatedly. Seek immediate medical attention.

Skin contact
Irritant. Wash thoroughly with soap and water. Remove contaminated clothing and launder before re-use. Seek medical advice if irritation persists.

SECTION 5: FIRE-FIGHTING MEASURES

When tested as described in the United Nations Recommendations on the Transport of Dangerous Goods this product is classified as a Flammable Solid.

Flammable Vapour Flammable Limits: LEL 1.1% UEL 6.1%

Flash Point: 31°C (Styrene) (Setaflash)
EXTINGUISHING MEDIA: Foam, carbon dioxide, dry powder, water fog.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Styrene will polymerise at elevated temperatures. If this occurs in a closed container there is risk of violent rupture.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to be taken if the material is released or spilled:

Eliminate all sources of ignition (flames, hot surfaces, electrical, static or frictional sparks). Ventilate area.
Prevent contamination of stormwater drains. Scrape up spilled material using plastic or non-sparking tools and place in suitable container for disposal or use.

SECTION 7: HANDLING AND STORAGE

Avoid inhalation of vapour and contact with skin, eyes and clothing. Launder contaminated clothing before re-use.
Wash hands thoroughly before eating.
Use with adequate ventilation and wear appropriate protective equipment to prevent contact with skin and eyes.
Keep away from heat and sources of ignition.
Store in a cool, dry and well ventilated space in original containers (ideally below 27˚C to prevent spoilage). Open vessels slowly in case of internal pressure. Keep containers closed and away from heat and sunlight when not in use.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Workplace Exposure Limit: Styrene 50ppm
Keep workplace ventilated to maintain low vapour concentration.
Skin protection: Wear overalls or other work clothing providing arm and leg cover. Use protective gloves (PVC) and mask.
Eye protection: Safety glasses

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Off-white or blue paste	Odour:	Sweet or sharp aromatic odour
Boiling Point:	(Styrene) 145°C	% Volatiles w/w:	19-22
Specific Gravity:	0.7 - 0.9	Water Miscibility:	Immiscible
Flammable Vapour		Flammable Limits:	LEL 1.1%
Flash Point:	(Styrene) 31°C		UEL 6.1%

SECTION 10: STABILITY AND REACTIVITY

Stability:	Potentially unstable - may polymerise producing heat if stored incorrectly.
Conditions to avoid:	Exposure to sunlight, open flames, contamination and prolonged storage above 27°C.
Materials to avoid:	Strong acids, peroxides, other oxidising agents, transition metals e.g. copper and zinc, their alloys and galvanised items.

SECTION 11: TOXICOLOGICAL INFORMATION

Prevent this product from entering storm-water drains sewers or waterways.
Styrene is the major contaminant hazard in these formulations and it will undergo slow (but near complete) biodegradation in contact with soil. Styrene vapour degrades rapidly in the atmosphere.
Styrene floats on water and will vapourise and biodegrade.

When used under properly controlled conditions, within workplace exposure limits and with adequate protective equipment, no adverse health effects are to be expected.

Acute effects of over-exposure
If Swallowed: Harmful by ingestion. Possible irritation of mucous membranes, nausea, vomiting and gastric disturbance. Possible depression of central nervous system. Aspiration into lungs could cause pneumonitis which may damage lungs or may be fatal.
Eye Contact: Mild to moderate irritation. Reddening may occur if exposure is prolonged.
Skin Contact: Irritant. May cause itching and redness of skin.
Inhalation of Vapour: May cause headaches, nausea, irritation of the respiratory tract and depression of the central nervous system.

Chronic effects of over-exposure
Mild dermatitis may result from prolonged or repeated skin contact. Styrene can be absorbed through the skin. Excessive exposure to the putty or its' vapour may affect the central nervous system, the liver, kidneys and respiratory system.

SECTION 12: ECOLOGICAL INFORMATION

Prevent this product from entering storm-water drains, sewers or waterways. In the event of escape notify the local authorities. Styrene is the major contaminant hazard and it will, in contact with soil, undergo slow (but nearly complete) biodegradation. Styrene vapours degrade rapidly in the atmosphere. Styrene floats on water and will vapourise and biodegrade. **Dispose of as a hazardous waste.**

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Small quantities of this material may be mixed with appropriate amounts of polymerisation initiators (e.g. methyl ethyl ketone peroxide) and allowed to solidify before disposal as solid waste.
Recover or recycle if possible. Any disposal must comply with applicable local and national government regulations. Ensure that this material does not enter drains, sewers or waterways.

SECTION 14: TRASPORT INFORMATION

UN Number:	2926	Flammable Solid, Toxic, Organic, N.O.S
Dangerous Goods Class:	4.1, 6. 1	Packing Group: 111
Hazchem Code:	3[Y]	Marine Pollutant

SECTION 15: REGULATORY INFORMATION

These products are hazardous goods approved by the Environmental Risk Management Authority (New Zealand) under the Group Standard for Surface Coatings and Colourants (Toxic).
HSNO Approval Code: HSR002669

SECTION 16: DISCLAIMER

The information in this safety data sheet is given in good faith and endeavours to provide valid and accurate information at the time of publication. No responsibility is accepted for accident or injury which may occur from use of the product or from omissions or guidance contained in the data sheet.