

**SECTION 1: MATERIAL IDENTIFICATION**

Product Name: Sheet / Bulk Moulding Compound
Product Identification No.: All Product Series (SMC - S, BMC - B) and experimental (EXS, EXB)
Chemical Family: Polyester / Vinyl Ester
Chemical Formula: Proprietary
Trade Name and Synonyms: SMC (Sheet Moulding Compound), BMC (Bulk Moulding Compound)
Material Use: Compression Moulding
Manufacturer: Jet Moulding Compounds Inc.
251 Station Street, Ajax, ON, Canada L1S 1S3
Telephone (905) 683-7022 (8 am to 6 pm ET weekdays)

SECTION 2: INGREDIENTS

Hazardous Ingredients	Approximate Concentration%	CAS No. or UN No.	Exposure Limits	LD50 / LC50 Specify Species and Route
Styrene Monomer	10-16%	CAS 100-42-5	OSHA 50 ppm TWA (voluntary) 100 ppm STEL ACGIH 20 ppm TWA 40 ppm STEL	LD 5000 mg/kg (Rat Ingestion) LC 24 g/cu.m/4M (Rat Inhalation)
Organic Peroxide	0.1 – 1.5%	CAS 614-45-9 CAS 6731-36-8	N/A	Not Available
Carbon Black	0.00 – 1.53%	CAS 1333-86-4	OSHA 3.5 mg/m ³ ACGIH 3.5 mg/cu.m TWA	Not Available
Reinforcing	8 – 70%	65997-17-3 Fibrous Glass	ACGIH Total Dust 10 mg/m ³ TWA OSHA Total Dust 15 mg/m ³ TWA Respirable 5.0 mg/m ³ TWA	Not Available

N/A – Not Established / TWA – 8 hour time weighted average / STEL – 15 minute maximum limit

SECTION 3: PHYSICAL DATA

Appearance and Odour: Solid mass with styrene odour
Odour Threshold: 0.01 ppm
Specific Gravity: 1.1 - 2.0
Freezing Point: Not Applicable
Solubility in Water: Not Applicable
% Volatile by Volume: Not Applicable
Boiling Point and Evaporation Rate: Not Applicable
pH: Not Available



SECTION 4: FIRE AND EXPLOSION INFORMATION

Flammability:	Yes (will typically not maintain flame at room temperature)
Under What Conditions:	Moderate when exposed to flame at elevated temperature
Means of Extinction	Water or chemical fire extinguisher
Special Procedures:	None
Flash Point (Celsius) and Method:	24.5 degrees C / ASTM D56 (Styrene)
Upper Explosion Limit (% By Volume):	In air, 7% (Styrene)
Lower Explosion Limit (% By Volume):	1.1%
Explosion Data:	Not applicable
Sensitivity to Mechanical Impact:	Not applicable
Explosive Power:	Not applicable
Hazardous Combustion Products:	None known
Auto Ignition Temperature:	490 degrees Celsius
Sensitivity to Static Discharge:	Not applicable
Special Fire Fighting Equipment:	May require protective clothing that will prevent skin contact and personal protection equipment to prevent inhalation.

SECTION 5: HEALTH HAZARD DATA

Permissible Exposure Level

Not Established for Product (See Section 2)

Effects of Acute Overexposure

Eyes	Can cause severe irritation, redness, tearing and blurred vision.
Skin	Prolonged or repeated contact can cause moderate irritation, dermatitis.
Breathing	Excessive inhalation of vapours can cause nasal and respiratory irritation, fatigue, headache and nausea.

First Aid

Eyes	Flush with large amounts of water, lifting upper and lower lids occasionally, seek medical attention.
Skin	Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.
Breathing	If affected, remove individual to fresh air. If breathing is difficult administer oxygen. If breathing has stopped, give artificial respiration. Seek medical attention.

Effects of Chronic Overexposure

The international Agency for Research on Cancer (IARC) has classified Styrene in Group 2B (possibly carcinogenic to humans). This classification is not based on any significant new evidence that Styrene may be carcinogenic, but rather on a revised definition for Group 2B and consideration of new data on Styrene Oxide. A number of lifetime animal studies with styrene including those conducted in the NCI BIOASSAY Program have not shown styrene to be carcinogenic.

Long term overexposure to styrene has been associated to the following effects in laboratory animals: liver abnormalities, kidney damage, lung damage and nervous disorders. OSHA, National Toxicology Program and American Conference of Governmental Industrial Hygienists have not classified styrene as a carcinogen.



SECTION 6: REACTIVITY DATA

Chemical Stability: Yes
Incompatibility to Other Substances: No
Reactivity and Under What Conditions: N/A
Hazardous Decomposition Products: Can produce oxides of carbon

SECTION 7: SPILL OR LEAK PROCEDURES

Steps to take if material is released or spilled: None (Moulding Compound is a Solid Mass Product).

Waste Disposal Method: Contaminated or scrap moulding compound should be cured and then recycled or deposited in a landfill in accordance with local, state/provincial and federal regulations.

SECTION 8: PROTECTIVE EQUIPMENT TO BE USED

Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see Section 2), an NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control.

Ventilation: Provide sufficient mechanical (general and/or local exhaust) to maintain exposure below TLV(s) (see Section 2).

Protective Gloves: Wear gloves such as cotton or impregnated cotton.

Eye Protection: Wear approved safety glasses.

Other Protective Equipment: Normal work clothing covering arms and legs.

SECTION 9: SPECIAL PRECAUTIONS OR OTHER COMMENTS

Storage: Unless noted otherwise, material should be kept in a cool area of the building (below 70 degrees F). Material should be kept well wrapped in nylon to prevent styrene loss.

Handling: When drilling, grinding or de-flashing cured moulding compound, special care should be taken to seal off potential areas of dust entry, i.e. shirt sleeves, pant legs.

Additional: PPE should be considered (as a minimum) if environmental conditions are poor, there is long term exposure to dust, or exposure limits are exceeded.



SECTION 10: PREPARATION DATE OF MSDS

Additional Information

- Rev 1 07/14/93 Revised Styrene Monomer Concentration
- Rev 2 12/09/95 Revised MSDS Package
- Rev 3 06/04/96 Manufacturer's Company Name Changed
- Rev 4 04/08/97 Product ID and ID Numbers updated, Format Changed, Legal Disclaimer Added
- Rev 5 07/28/98 Issuer Name and Document Number Changed
- Rev 6 01/18/00 Issuer Name Changed
- Rev 7 05/11/00 Revised Section 2 Ingredients (CAS No.'s)
- Rev 8 10/02/02 Revised Section 1 Product Identification No.
- Rev 9 06/26/03 Revised Document to Reflect New Company Logo and Format Changed
- Rev 10 11/1/04 Revised Section 2, 3, 4, 5, 8 and 9 (no significant product changes)
- Rev 11 11/17/06 Revised Section 2 Ingredients Carbon Black approximate concentration updated

Sources Used

Jet Moulding Compounds Inc. SMC MSDS, 11/1/04.

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SECTION 11: LEGAL DISCLAIMER

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