

ICS

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: ICS-SL-102
MSDS Number: ICS-006
Product Use: Mold casting

MANUFACTURER: International Casting Supply Inc.
 6915 Louis Sicard St.
 St. Leonard, QC H1P 1T6 CANADA
 Information: (514) 327-6688

Emergency #: (514) 327-6688 (During working hours)

2. COMPOSITION / INFORMATION ON INGREDIENTS

Components	wt. %	CAS Number	TLV-TWA mg/m ³	TLV-STEL mg/m ³	LD50 mg/kg (oral, rat)	LC50 (inh, rat)
Zirconium Silicate	<30	14940-68-2	5 as Zr	10 as Zr	N.E.	N.E.
Calcined Kaolin (Mullite)	<20	1302-93-8	2*	N.E.	N.E.	N.E.
Amorphous Silica (Glass)	<30	60676-86-0	0.1*	N.E.	N.E.	N.E.
Amorphous Silica	<6	7631-86-9	0.1*	N.E.	N.E.	N.E.
Silica, Cristobalite	<10	14464-46-1	.05*	N.E.	N.E.	N.E.

Notes: * Respirable N.E = Not Established

3. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

Eye Inhalation Skin Ingestion

POTENTIAL HEALTH EFFECTS:

Eye Contact: May cause eye irritation.

Ingestion: Not a likely route of exposure.

Inhalation: May cause coughing and mild, temporary irritation.

Skin Contact: Not a likely route of exposure.

Chronic: Lung scarring produced by inhalation may lead to a progressive massive fibrosis of the lung, which may aggravate other pulmonary conditions and diseases and which increases susceptibility of pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure, and pulmonary failure. Smoking aggravates the effects of exposure. Kaolinosis exists in both simple and complicated forms. Crystalline silica exposure appears to enhance the severity of Kaolinosis.

4. FIRST AID MEASURES

Eye Contact: Do not rub eyes. Let eyes water naturally for a few minutes. Have victim look left and right, then up and down. If particle/dust does not dislodge, flush with plenty of water. If irritation persists, consult a physician.

Ingestion: Not applicable.

Inhalation: If symptoms of discomfort or irritation occur, remove affected person to fresh air. If irritation persists, consult a physician.

Skin Contact: Not applicable.

Note to Physician: Jurisdictions which have specific regulations for crystalline silica also require medical surveillance programs. Medical surveillance programs may include periodic physical examinations, chest X-rays and pulmonary function tests. Since there may be some variation in these requirements, specific information should be sought from the appropriate government agency in each jurisdiction.

5. FIRE FIGHTING MEASURES

Flash Point: Not applicable **Method:** Not applicable

Auto-Ignition Temperature: Not applicable

Upper Flammability Limits (% vol.): Not applicable

Lower Flammability Limits (% vol.): Not applicable

Fire Hazard Comments: Not combustible

Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Special Fire Fighting Procedures: Not applicable

Explosion Data – Sensitivity to: **Mechanical Impact:** Not applicable

Static Discharge: Not applicable

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Use dustless methods (vacuum) and place into closable container for disposal, or flush with water. DO NOT dry sweep. Wear appropriate personal protective equipment, including respiratory protection. Vacuum exhaust must be vented outside or provided with a high efficiency particulate air filter. Avoid creating dust.

7. HANDLING AND STORAGE

Handling Procedure/Equipment: Avoid creating dust. Use with adequate ventilation or approved respirators. Avoid contact with eyes. Wash thoroughly after handling. Do not eat, drink or smoke in work areas. Use dustless systems for handling, storage and clean up so that airborne dust does not exceed exposure limits. **WARNING:** Cristobalite is a suspected human carcinogen.

Storage Requirements: Keep container closed when not in use. Inspect periodically for damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Ventilation is normally required when handling or using this product to minimize exposure to dust.

PERSONAL PROTECTIVE EQUIPMENT:

Eyes: Wear safety glasses with side shields if exposure to dust is likely.

Respirator: A NIOSH approved N99 air purifying respirator with a dust cartridge is recommended where dust concentrations are expected to be high.

Skin: Not applicable.

Other: Avoid inhalation and ingestion of this material. Avoid eye contact. Maintain good housekeeping.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	GAS	LIQUID	<input checked="" type="checkbox"/> SOLID
Appearance:	White to off white dry powder	Evaporation Rate (n-butyl acetate = 1): Not applicable	
Odour:	Odourless	Boiling Point: Not applicable	
Odour Threshold:	Not applicable	Melting Point: Not applicable	
Specific Gravity:	2.64	pH: 6.5 - 8	
Vapour Pressure:	Not applicable	Coefficient of Water/Oil Distribution: Not established	
Vapour Density:	Not available	Solubility in Water: Insoluble	
Volatile Organic Compound VOC (g/L):	Not established		

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable	If not, under what conditions:	Not applicable
Conditions of Reactivity:			Not established.
Conditions to Avoid / Incompatible Materials:	Avoid strong oxidizing agents. Avoid contact with hydrofluoric acid, magnesium, manganese trifluoride, sodium and xenon hexafluoride.		
Hazardous Dec./Comb.:	Thermal decomposition products will produce silicon dioxide and aluminum oxide. Silica will dissolve in hydrofluoric acid and produce corrosive gas, silicon tetrafluoride.		
Hazardous Polymerization:	Will not occur.		

11. TOXICOLOGICAL INFORMATION

Carcinogenicity:	NTP: Yes, Crystalline silica	
	OSHA: Unknown	
	IARC: Yes, Crystalline silica	
LD50: Not established	LC50: Not established	
Irritancy of Product:	May cause irritation.	Sensitization to Product: Not applicable
Reproductive Toxicity:	Not established	Mutagenicity: Not established
Teratogenicity:	Not established	Synergistic Products: Not established

12. ECOLOGICAL INFORMATION

ICS-SL-202 is a relatively inert material which is not expected to exert an ecotoxic effect or bioconcentrate in the food chain.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Product is Non-Biodegradable. Dispose of in a waste container which is suitable for transportation and which does not release fugitive dust. Dispose in landfill in accordance with all governmental regulations.

14. TRANSPORT INFORMATION

Proper Shipping Name:	Not required
Technical Name:	N/A Crystalline silica, (Cristobalite or Goresil®) is NOT a hazardous material for purposed of transportation under the U.S. Department of Transportation Table of Hazardous Materials. 49 CFR 172.101
UN Number:	N/A

15. REGULATORY INFORMATION

WHMIS Classification: D2A

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200: This product is hazardous under the criteria of this rule.

EPCRA Section 302 (EHSs): This product does not contain ingredients subject to reporting requirements of 40 CFR Part 355, Appendices A and B (Extremely Hazardous Substances).

CERCLA, Section 304: This product does not contain ingredients subject to state and local reporting under Section 304 of SARA Title III as listed in 40 CFR Part 302, Table 302.4

SARA 313 REPORTING REQUIREMENTS: This product does not contain ingredients subject to the reporting requirements of Section 313 SARA, and Section 6607 of the Pollution Prevention Act.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and by definition meets the requirements of the following category:

Chronic Health Hazard

CALIFORNIA PROPOSITION 65: Silica, crystalline (airborne particles of respirable size)

TSCA (Toxic Substances Control Act): All ingredients contained in this product are on the TSCA inventory.

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR) and the American OSHA Hazard Communication Standard.

16. OTHER INFORMATION

Preparation Date: 10/05/2005

Prepared By: Cameron W. Sherry, Les Consultants LBCD Inc.

The information and recommendations contained herein are, to the best of International Casting Supply's knowledge and belief, accurate and reliable as of the date issued. International Casting Supply does not warrant or guarantee their accuracy or reliability, and International Casting Supply shall not be liable for any loss or damage arising out of the user thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container.