

# ICS

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** ICS-Premium, ICS-400, ICS-Jewel Cast  
**MSDS Number:** ICS-001  
**Product Use:** Casting Molds

**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 <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>	LD50 mg/kg (oral, rat)	LC50 (inh, rat)
Silica, Cristobalite And Quartz	>40	14464-46-1 14808-60-7	.05* .05*	N.E. N.E.	N.E. N.E.	N.E. N.E.
Calcium Sulfate	<40	10101-41-4 & 7778-18-9	10 (total) 10 (total)	N.E. N.E.	N.E. 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, tightness in chest, shortness of breath, wheezing and sputum production.

**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.

#### 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.

**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:** Boots, aprons or chemical suits should be used when necessary to prevent excessive skin contact.

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	<b>GAS</b>	<b>LIQUID</b>	<input checked="" type="checkbox"/> <b>SOLID</b>
<b>Appearance:</b>	White to off white dry powder	<b>Evaporation Rate (n-butyl acetate = 1):</b> Not applicable	
<b>Odour:</b>	Odourless	<b>Boiling Point:</b> Not applicable	
<b>Odour Threshold:</b>	Not applicable	<b>Melting Point:</b> Gypsum will decompose above 1450°C to form CaO & SO <sub>2</sub> (SiO <sub>2</sub> melting point 1710°C)	
<b>Specific Gravity:</b>	2.32-2.96	<b>pH:</b> Not established	
<b>Vapour Pressure:</b>	Not applicable	<b>Coefficient of Water/Oil Distribution:</b> Not established	
<b>Vapour Density:</b>	Not applicable	<b>Solubility in Water:</b> > 0.20%	
<b>Volatile Organic Compound VOC (g/L):</b> Not established			

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable below 1710°C	<b>If not, under what conditions:</b>	Not applicable
<b>Conditions of Reactivity:</b>		Not established.	
<b>Conditions to Avoid / Incompatible Materials:</b>	Avoid strong oxidizing agents. Avoid contact with acetylene ammonia, hydrofluoric acid, magnesium, manganese trifluoride, sodium and xenon hexafluoride. Avoid generation of dust		
<b>Hazardous Dec./Comb.:</b>	Silica will dissolve in hydrofluoric acid and produce corrosive gas, silicon tetrafluoride. Gypsum will decompose to SO <sub>2</sub> and CaO gas when heated above 1450°C.		
<b>Hazardous Polymerization:</b>	Will not occur.		

## 11. TOXICOLOGICAL INFORMATION

<b>Carcinogenicity:</b>	<b>NTP:</b> Yes, Crystalline silica	
	<b>OSHA:</b> No	
	<b>IARC:</b> Yes, Crystalline silica	
<b>LD50:</b> Not established	<b>LC50:</b> Not established	
<b>Irritancy of Product:</b>	May cause irritation.	<b>Sensitization to Product:</b> Not applicable
<b>Reproductive Toxicity:</b>	Not established	<b>Mutagenicity:</b> Not established
<b>Teratogenicity:</b>	Not established	<b>Synergistic Products:</b> Not established

## 12. ECOLOGICAL INFORMATION

This section is subject to future development.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** 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

This section is subject to future development.

**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**

**Revised Date:** 08/13/2003

**Reason for Issue:** Reviewed, changes to Sections 2, 4, 7, 10 and 16.

**Previous Date of Issue:** 11/26/1998

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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.