

ICS

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: ICS-Colloidal Silica
MSDS Number: ICS-007
Product Use: Colloidal silica based primary binder for investment 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)
Amorphous Silica Dipotassium Flourescein	<50	7631-86-9	0.1*	N.E.	N.E.	N.E.
Oxirane polymer With 2 ethyl hexyl di-hydrogen phosphate	<10	6417-85-2	N.E.	N.E.	N.E.	N.E.
	<10	68460-10-6	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: Not a likely route of exposure.
Skin Contact: May tend to dry out skin.
Chronic: Not established

4. FIRST AID MEASURES

Eye Contact: Flush with flowing water for at least 15 minutes. 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: Wash with soap and water.

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: Spills should be contained and placed in suitable containers for disposal in a licensed facility. Clean up promptly as spills are a slipping hazard.

7. HANDLING AND STORAGE

Handling Procedure/Equipment: Contains alkaline material. May cause irritation. Avoid contact with eyes, skin and clothing.
Storage Requirements: Keep from freezing. Binder stored in transparent or translucent containers should be sheltered from direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Local exhaust
PERSONAL PROTECTIVE EQUIPMENT:
Eyes: Not normally necessary but recommended. Chemical worker goggles.
Respirator: A NIOSH approved N95 approved respirator with a dust cartridge is recommended.
Skin: Protective gloves.
Other: Avoid ingestion of this material. Avoid eye contact. Maintain good housekeeping.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	GAS	<input checked="" type="checkbox"/> LIQUID	SOLID
Appearance:	Yellow	Evaporation Rate (n-butyl acetate = 1): Not applicable	
Odour:	Odourless	Boiling Point: 100°C (212°F)	
Odour Threshold:	Not applicable	Melting Point: 0°C (32°F)	
Specific Gravity:	1.180	pH: 10.6 (typical)	
Vapour Pressure:	17.5 mmHg	Coefficient of Water/Oil Distribution: Not established	
Vapour Density:	0.016	Solubility in Water: 100%	
Volatile Organic Compound VOC (g/L): 65%			

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 freezing. Acids. Metal salts will coagulate product.		
Hazardous Dec./Comb.:	See Section 11.		
Hazardous Polymerization:	Will not occur.		

11. TOXICOLOGICAL INFORMATION

Carcinogenicity:	NTP: Not listed		
	OSHA: Not regulated		
	IARC: Not evaluated		
Although amorphous silica is not a carcinogen as purchased in this product, portions of it may convert to crystalline silica (cristobalite) when subjected to higher temperatures (1700°F). IARC and NTP define silica, crystalline (respirable) as a known human carcinogen.			
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

No exotoxicity data is available. This product is not expected to present an environmental hazard.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of waste materials and containers in a licensed facility.

14. TRANSPORT INFORMATION

Proper Shipping Name: Not Regulated

15. REGULATORY INFORMATION

WHMIS Classification: D2B

This product contains trace amounts of 1, 3 Butadiene, a chemical known to the State of California to cause cancer.

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

NFPA Hazard Ratings: Health -1
none → extreme Fire - 0
0 → 4 Reactivity -0

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

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