

GARDENA, CA
NEW BRUNSWICK, NJ

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table border="1"> <tr><td>Health Hazard</td><td style="text-align: center;">2</td></tr> <tr><td>Physical Hazard</td><td style="text-align: center;">0</td></tr> <tr><td>Reactivity</td><td style="text-align: center;">0</td></tr> </table>	Health Hazard	2	Physical Hazard	0	Reactivity	0	
Health Hazard	2							
Physical Hazard	0							
Reactivity	0							
		See Section 15.						

Section 1. Chemical Product and Company Identification		<i>Page Number: 1</i>
Common Name/ Trade Name	Cesium fluoride	CAS# 13400-13-0
Manufacturer	ProChem, Inc. 826 Roosevelt Rd Rockford, IL 61109	RTECS FK9650000
Commercial Name(s)	Not available.	TSCA TSCA 8(b) inventory: Cesium fluoride
Synonym	Not available.	CI# Not available.
Chemical Name		IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL 815-398-1788
Chemical Family	Not available.	
Chemical Formula	CsF	
Supplier		

Section 2. Composition and Information on Ingredients					
		<i>Exposure Limits</i>			
Name	CAS #	TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	% by Weight
1) Cesium fluoride	13400-13-0	2.5			100
Toxicological Data on Ingredients	Cesium fluoride LD50: Not available. LC50: Not available.				

Section 3. Hazards Identification	
Potential Acute Health Effects	Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant). Slightly hazardous in case of skin contact (corrosive). Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.
Skin Contact	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
Inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
Serious Inhalation	Not available.
Ingestion	Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	Non-flammable.
Auto-Ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

Precautions	Keep container dry. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. May corrode glass. Store in an appropriate container.
Storage	No specific storage is required. Use shelves or cabinets sturdy enough to bear the weight of the chemicals. Be sure that it is not necessary to strain to reach materials, and that shelves are not overloaded.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	TWA: 2.5 (mg/m ³) Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid.	Odor	Not available.
Molecular Weight	151.91 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Not available.
Boiling Point	1251°C (2283.8°F)		
Melting Point	682°C (1259.6°F)		
Critical Temperature	Not available.		
Specific Gravity	4.115 (Water = 1)		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water.		
Solubility	Easily soluble in cold water.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Not available.
Incompatibility with various substances	Not available.

Corrosivity	Corrosive in presence of glass.
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Special Remarks on Reactivity	Not available.
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Special Remarks on Corrosivity	Not available.
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Polymerization	No.
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Section 11. Toxicological Information

Routes of Entry	Eye contact. Inhalation. Ingestion.
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Toxicity to Animals	LD50: Not available. LC50: Not available.
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Chronic Effects on Humans	Not available.
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Other Toxic Effects on Humans	Very hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant). Slightly hazardous in case of skin contact (corrosive).
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Special Remarks on Toxicity to Animals	Not available.
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Special Remarks on Chronic Effects on Humans	Passes through the placental barrier in human. Excreted in maternal milk in human.
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Special Remarks on other Toxic Effects on Humans	Not available.
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Section 12. Ecological Information

Ecotoxicity	Not available.
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BOD5 and COD	Not available.
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Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
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Toxicity of the Products of Biodegradation	The products of degradation are as toxic as the original product.
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Special Remarks on the Products of Biodegradation	Not available.
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Section 13. Disposal Considerations

Waste Disposal	
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Section 14. Transport Information

DOT Classification	Not a DOT controlled material (United States).
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Identification	Not applicable.
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Special Provisions for Transport	Not applicable.
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DOT (Pictograms)



Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

TSCA 8(b) inventory: Cesium fluoride

California Proposition 65 Warnings

Other Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications

WHMIS (Canada) CLASS D-2B: Material causing other toxic effects (TOXIC).

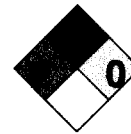
DSCL (EEC) R37/38- Irritating to respiratory system and skin.
R41- Risk of serious damage to eyes.

HMIS (U.S.A.)

	2
	0
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)

Health



Flammability

Reactivity

Specific hazard

WHMIS (Canada) (Pictograms)



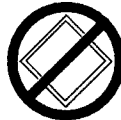
DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment



Gloves.



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16. Other Information

References Not available.

Other Special Considerations Not available.

PREPARATION DATE: NOV 2005

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, ProChem Chemicals Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.