





# Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table><tr><td>Health Hazard</td><td>3</td></tr><tr><td>Fire Hazard</td><td>0</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>	Health Hazard	3	Fire Hazard	0	Reactivity	0	<div></div> <div>See Section 15.</div>
Health Hazard	3							
Fire Hazard	0							
Reactivity	0							

Section 1. Chemical Product and Company Identification			Page Number: 1	
Common Name/ Trade Name		Lead Fluoborate, 51%	Catalog Number(s).	L1065
			CAS#	Mixture.
Manufacturer		SPECTRUM CHEMICAL MFG. CORP. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	RTECS	Not applicable.
			TSCA	TSCA 8(b) inventory: Lead tetrafluoroborate; Water
Commercial Name(s)		Not available.	CI#	Not available.
Synonym		Not available.	<b><u>IN CASE OF EMERGENCY</u></b> <b><u>CHEMTREC (24hr) 800-424-9300</u></b>  CALL (310) 516-8000	
Chemical Name		Not applicable.		
Chemical Family		Not available.		
Chemical Formula		Not applicable.		
Supplier		SPECTRUM CHEMICAL MFG. CORP. 14422 S. SAN PEDRO STREET GARDENA, CA 90248		

Section 2. Composition and Information on Ingredients					
		Exposure Limits			
Name	CAS #	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )	CEIL (mg/m <sup>3</sup> )	% by Weight
1) Lead tetrafluoroborate	13814-96-5	0.15		0.45	51
2) Water	7732-18-5				49
Toxicological Data on Ingredients		Lead tetrafluoroborate LD50: Not available. LC50: Not available.			

Section 3. Hazards Identification	
Potential Acute Health Effects	Extremely hazardous in case of ingestion. Very hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Hazardous in case of skin contact (corrosive). Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

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<b>Potential Chronic Health Effects</b>	<p>Extremely hazardous in case of ingestion.</p> <p>Very hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.</p> <p>Hazardous in case of skin contact (corrosive).</p> <p>Non-sensitizer for skin. Non-permeator by skin.</p> <p><b>CARCINOGENIC EFFECTS:</b> Classified 2B (Possible for human.) by IARC [Lead tetrafluoroborate].</p> <p><b>MUTAGENIC EFFECTS:</b> Not available.</p> <p><b>TERATOGENIC EFFECTS:</b> Not available.</p> <p><b>DEVELOPMENTAL TOXICITY:</b> Not available.</p> <p>The substance is toxic to blood, kidneys, lungs, the nervous system, mucous membranes.</p> <p>Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.</p>
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#### Section 4. First Aid Measures

<b>Eye Contact</b>	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.
<b>Skin Contact</b>	If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical got on the victim's exposed skin, such as the hands : 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. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
<b>Serious Skin Contact</b>	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
<b>Inhalation</b>	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
<b>Serious Inhalation</b>	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
<b>Ingestion</b>	Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. 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.
<b>Serious Ingestion</b>	Not available.

#### Section 5. Fire and Explosion Data

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

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**Section 6. Accidental Release Measures**

<b>Small Spill</b>	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
<b>Large Spill</b>	Absorb with an inert material and put the spilled material in an appropriate waste disposal. 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**

<b>Precautions</b>	Keep locked up. Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapour/spray. 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.
<b>Storage</b>	Keep container tightly closed. Keep in a cool, well-ventilated place. Highly toxic or infectious materials should be stored in a separate locked safety storage cabinet or room.

**Section 8. Exposure Controls/Personal Protection**

<b>Engineering Controls</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
<b>Personal Protection</b>	Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
<b>Personal Protection in Case of a Large Spill</b>	Splash goggles. Full suit. Vapor 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.
<b>Exposure Limits</b>	<b>Lead tetrafluoroborate</b> TWA: 0.15 CEIL: 0.45 (mg/m <sup>3</sup> )  Consult local authorities for acceptable exposure limits.

**Section 9. Physical and Chemical Properties**

<b>Physical state and appearance</b>	Liquid.	<b>Odor</b>	Not available.
<b>Molecular Weight</b>	Not applicable.	<b>Taste</b>	Not available.
<b>pH (1% soln/water)</b>	Neutral.	<b>Color</b>	Not available.
<b>Boiling Point</b>	The lowest known value is 100°C (212°F) (Water).		
<b>Melting Point</b>	Not available.		
<b>Critical Temperature</b>	Not available.		
<b>Specific Gravity</b>	The only known value is 1 (Water = 1) (Water).		
<b>Vapor Pressure</b>	The highest known value is 17.535 mm of Hg (@ 20°C) (Water).		
<b>Vapor Density</b>	The highest known value is 0.62 (Air = 1) (Water).		
<b>Volatility</b>	Not available.		
<b>Odor Threshold</b>	Not available.		
<b>Water/Oil Dist. Coeff.</b>	Not available.		
<b>Ionicity (in Water)</b>	Not available.		
<b>Dispersion Properties</b>	See solubility in water.		
<b>Solubility</b>	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	Highly corrosive in presence of glass.
Special Remarks on Reactivity	Not available.
Special Remarks on Corrosivity	Not available.
Polymerization	No.

**Section 11. Toxicological Information**

Routes of Entry	Eye contact. Inhalation. Ingestion.
Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	<b>CARCINOGENIC EFFECTS:</b> Classified 2B (Possible for human.) by IARC [Lead tetrafluoroborate]. The substance is toxic to blood, kidneys, lungs, the nervous system, mucous membranes.
Other Toxic Effects on Humans	Extremely hazardous in case of ingestion. Very hazardous in case of skin contact (irritant), of inhalation. Hazardous in case of skin contact (corrosive).
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on other Toxic Effects on Humans	Not available.

**Section 12. Ecological Information**

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are more toxic.
Special Remarks on the Products of Biodegradation	Not available.

**Section 13. Disposal Considerations****Waste Disposal****Section 14. Transport Information****DOT Classification** CLASS 6.1: Poisonous material.**Identification** : Lead compound, soluble, n.o.s. (Lead fluoborate, solution) (Lead tetrafluoroborate) : UN2291 PG: III**Special Provisions for Transport** Marine Pollutant**DOT (Pictograms)****Section 15. Other Regulatory Information and Pictograms****Federal and State Regulations**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Lead tetrafluoroborate

California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: Lead tetrafluoroborate

California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (male) which would require a warning under the statute: Lead tetrafluoroborate

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Lead tetrafluoroborate

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Lead tetrafluoroborate

Pennsylvania RTK: Lead tetrafluoroborate

Massachusetts RTK: Lead tetrafluoroborate

TSCA 8(b) inventory: Lead tetrafluoroborate; Water

SARA 313 toxic chemical notification and release reporting: Lead tetrafluoroborate

CERCLA: Hazardous substances.: Lead tetrafluoroborate;

**California Proposition 65 Warnings**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Lead tetrafluoroborate

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Lead tetrafluoroborate

**Other Regulations** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).**Other Classifications****WHMIS (Canada)** CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).  
CLASS D-2A: Material causing other toxic effects (VERY TOXIC).**DSCL (EEC)** R38- Irritating to skin.  
R40- Possible risks of irreversible effects.  
R41- Risk of serious damage to eyes.**HMIS (U.S.A.)**

Health Hazard	3
Fire Hazard	0
Reactivity	0
Personal Protection	h

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

Health	3	0	0	Flammability
				Reactivity
				Specific hazard

**WHMIS (Canada)  
(Pictograms)****DSCL (Europe)  
(Pictograms)****TDG (Canada)  
(Pictograms)****ADR (Europe)  
(Pictograms)****Protective Equipment**

Gloves.



Lab coat.



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



Splash goggles.

**Section 16. Other Information****MSDS Code** L3200**References** Not available.**Other Special Considerations** Not available.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.

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CALL (310) 516-8000

[Notice to Reader](#)**Continued on Next Page**

*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, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.*