

# Material Safety Data Sheet

<b>NFPA</b>  	<b>HMIS</b>  <table border="1"> <tr> <td style="background-color: #00FFFF;">Health Hazard</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="background-color: #FFCCCC;">Fire Hazard</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	0	Reactivity	0	<b>Personal Protective Equipment</b>    See Section 15.
Health Hazard	2							
Fire Hazard	0							
Reactivity	0							

Section 1. Chemical Product and Company Identification		Page Number: 1
<b>Common Name/Trade Name</b>	Lead chromate	<b>Catalog Number(s).</b> L1183, L1055
<b>Manufacturer</b>	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	<b>CAS#</b> 7758-97-6
<b>Commercial Name(s)</b>	Not available.	<b>RTECS</b> GB2975000
<b>Synonym</b>	Lead Chromate (VI); Lead Chromium Oxide; Plumbous chromate	<b>TSCA</b> TSCA 8(b) inventory: Lead chromate
<b>Chemical Name</b>	Chromic acid, lead (2+) salt (1:1)	<b>CI#</b> Not available.
<b>Chemical Family</b>	Not available.	<b>IN CASE OF EMERGENCY</b> <b>CHEMTREC (24hr) 800-424-9300</b>  CALL (310) 516-8000
<b>Chemical Formula</b>	PbCrO4	
<b>Supplier</b>	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )	CEIL (mg/m <sup>3</sup> )	
1) Lead chromate	7758-97-6	0.05			100
<b>Toxicological Data on Ingredients</b>	<b>Lead chromate:</b> ORAL (LD50): Acute: >12000 mg/kg [Mouse].				

Section 3. Hazards Identification	
<b>Potential Acute Health Effects</b>	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (sensitizer). Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation.
<b>Potential Chronic Health Effects</b>	Slightly hazardous in case of skin contact (sensitizer). <b>CARCINOGENIC EFFECTS:</b> Classified 1 (Proven for human.) by IARC, 1 (Clear evidence; known carcinogen.) by NTP. Classified A2 (Suspected for human.) by ACGIH. <b>MUTAGENIC EFFECTS:</b> Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. <b>TERATOGENIC EFFECTS:</b> Not available. <b>DEVELOPMENTAL TOXICITY:</b> Not available. The substance may be toxic to blood, kidneys, lungs, the nervous system, liver, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

**Section 4. First Aid Measures**

<b>Eye Contact</b>	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
<b>Serious Skin Contact</b>	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get 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. Seek medical attention.
<b>Ingestion</b>	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
<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 available.
<b>Flash Points</b>	Not available.
<b>Flammable Limits</b>	Not available.
<b>Products of Combustion</b>	Some metallic oxides.
<b>Fire Hazards in Presence of Various Substances</b>	Slightly flammable to flammable in presence of combustible materials, of organic materials.
<b>Explosion Hazards in Presence of Various Substances</b>	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.
<b>Fire Fighting Media and Instructions</b>	Oxidizing material. Use water, but do not use water jet or water spray. Use flooding quantities of water. Avoid contact with organic materials or combustible materials. Flood fire area from a distance. Avoid contact with organic, and combustible materials. Do not use dry chemicals or foams. Carbon Dioxide or Halon should not be used because they may only provide limited control.
<b>Special Remarks on Fire Hazards</b>	When heated to decomposition it emits highly toxic fumes. Contact with combustible or organic materials may cause fire.
<b>Special Remarks on Explosion Hazards</b>	Potentially explosive reaction with azodyestuffs (e.g. dinitroaniline orange, chlorinated para red). Lead chromate decomposes hydrazine explosively.

**Section 6. Accidental Release Measures**

<b>Small Spill</b>	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
<b>Large Spill</b>	Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on 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 away from heat. Keep away from sources of ignition. Keep away from combustible material.. Do not ingest. Do not breathe dust. Wear suitable protective clothing. 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. Keep away from incompatibles such as oxidizing agents, reducing agents, combustible materials, organic materials, metals.
<b>Storage</b>	Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalies, reducing agents and combustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers.

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

<b>Engineering Controls</b>	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.
<b>Personal Protection</b>	Splash goggles. Lab coat. Dust 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. 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.
<b>Exposure Limits</b>	TWA: 0.05 (mg(Pb)/m <sup>3</sup> ) from ACGIH (TLV) [United States] TWA: 0.012 (mg(Cr)/m <sup>3</sup> ) from ACGIH (TLV) [United States] TWA: 0.05 (mg(Pb)/m <sup>3</sup> ) from NIOSH [United States] TWA: 0.001 (mg(Cr)/m <sup>3</sup> ) from NIOSH [United States] TWA: 0.5 (mg(Pb)/m <sup>3</sup> ) from OSHA (PEL) [United States] CEIL: 0.1 (mg(chromates)/m <sup>3</sup> ) from OSHA (PEL) [United States] TWA: 1 (mg(Cr)/m <sup>3</sup> ) from OSHA (PEL) [United States] TWA: 0.012 (mg(Cr)/m <sup>3</sup> ) [Canada] IDLH: 0.15 mg(chromates)/m <sup>3</sup> from NIOSH [United States]  Consult local authorities for acceptable exposure limits.

**Section 9. Physical and Chemical Properties**

<b>Physical state and appearance</b>	Solid. (Crystals solid.)	<b>Odor</b>	Not available.
<b>Molecular Weight</b>	323.2 g/mole	<b>Taste</b>	Not available.
<b>pH (1% soln/water)</b>	Not applicable.	<b>Color</b>	Yellow. Yellow-orange.
<b>Boiling Point</b>	Not available.		
<b>Melting Point</b>	844°C (1551.2°F)		
<b>Critical Temperature</b>	Not available.		
<b>Specific Gravity</b>	6.12 (Water = 1)		
<b>Vapor Pressure</b>	Not applicable.		
<b>Vapor Density</b>	Not available.		
<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>	Not available.		
<b>Solubility</b>	Insoluble in cold water.		

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**Section 10. Stability and Reactivity Data**

<b>Stability</b>	The product is stable.
<b>Instability Temperature</b>	Not available.
<b>Conditions of Instability</b>	Incompatible materials
<b>Incompatibility with various substances</b>	Reactive with reducing agents, combustible materials, organic materials, metals.
<b>Corrosivity</b>	Non-corrosive in presence of glass.
<b>Special Remarks on Reactivity</b>	Incompatible with aluminum + dinitronaphthalene, iron (3+) hexacyanoferrate (-4), G and O azo dyes such as dinitroaniline orange and chlorinated para-red, active metals (e.g. sodium, potassium, magnesium, zinc) , hydrazine, potassium, hydrogen peroxide, sulfur, tantalum, combustible materials (wood, paper, clothing, oil, etc), reducing materials, organic compounds, aluminum, iron, ferric ferrocyanide, hydrazine, oxidizers (perchlorates, peroxides, permanganates, chlorates, and nitrates). Violent reaction with aluminum + dinitronaphthalene + heat. Forms pyrophoric mixtures with sulfur, tantalum, and iron (3+) hexacyanoferrate (4-) (e.g. brunswick green pigment, prussian blue pigment). Reacts violently with ferric ferrocyanide.
<b>Special Remarks on Corrosivity</b>	Not available.
<b>Polymerization</b>	Will not occur.

**Section 11. Toxicological Information**

<b>Routes of Entry</b>	Inhalation. Ingestion.
<b>Toxicity to Animals</b>	Acute oral toxicity (LD50): >12000 mg/kg [Mouse].
<b>Chronic Effects on Humans</b>	<b>CARCINOGENIC EFFECTS:</b> Classified 1 (Proven for human.) by IARC, 1 (Clear evidence; known carcinogen) by NTP. Classified A2 (Suspected for human.) by ACGIH. <b>MUTAGENIC EFFECTS:</b> Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, central nervous system (CNS).
<b>Other Toxic Effects on Humans</b>	Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (sensitizer).
<b>Special Remarks on Toxicity to Animals</b>	Not available.
<b>Special Remarks on Chronic Effects on Humans</b>	May affect genetic material (mutagenic). Can cause cancer. While Lead Chromate has not been tested for its ability to cause reproductive damage, it should be handled with caution since several related Lead and hexavalent chromium compounds damage the developing fetus, decrease fertility in males and females, and cause sperm abnormalities in males.
<b>Special Remarks on other Toxic Effects on Humans</b>	Acute Potential Health Effects: Skin: Causes skin irritation. Eyes: Causes eye irritation. Can cause primary irritant dermatitis. Inhalation: Causes respiratory tract and mucous membrane irritation with sneezing, coughing, labored breathing, dyspnea, nasal damage, throat erythema, nausea, metallic taste. May also cause nasal septum lesions, perforation with bleeding, rhinorrhea, or crusting. Ingestion: May cause gastrointestinal tract irritation with abdominal pain/cramps, nausea, vomiting, constipation, diarrhea, metallic taste, thirst, anorexia, malaise, circulatory collapse. Lead compounds can cause effects in the blood (hemolysis), kidneys (kidney damage - nephritis, renal failure, renal tubular necrosis), liver (liver damage - liver necrosis, hepatitis, jaundice), and central nervous system (headache, insomnia, vertigo, irritability, reduced memory, disturbed sleep, mood and personality changes, convulsions). May also damage nerves causing weakness, "pins and needles," and poor coordination, muscle and joint pain and weakness, and cause hyponatremia. May also cause brain damage, and seizures due to intracranial pressure. Chronic Potential Health Effects: Ingestion: Can cause cancer in humans. Repeated or prolonged exposure to lead compounds may cause lead poisoning (Plumbism) which is characterized by abdominal tenderness, nausea, vomiting, metallic taste, loss of

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appetite (anorexia), weight loss, upset stomach, colic, muscle cramps, a lead line in gum, facial pallor, pallor of the eye grounds, headache, muscle weakness, behavioral/mental changes (headache, irritability, insomnia, ataxia, incoordination, lassitude, forgetfulness and/or poor concentration, hallucinations, anxiety, convulsions, coma), visual disturbances, hypotension, hypertension. May also cause brain damage, kidney damage (glomerular sclerosis, renal tubular necrosis), liver damage (hepatitis, jaundice, liver necrosis) , and affect blood (changes in white blood cell count (leukocytosis, monocytosis, eosinophilia), anemia), hearing loss.

Skin: Repeated or prolonged skin contact may cause sensitization dermatitis (a skin allergy), blisters, penetrating skin ulcers.

Inhalation: Prolonged or repeated inhalation may cause respiratory tract irritation, congestion, cough, wheezing, dyspnea, headache, perforated septum, inflammation of the lungs, emphysema, tracheitis, pharyngitis, inflammation of the larynx, bronchospasm and lung cancer. Respiratory sensitization may also occur, resulting in asthma attack.

### Section 12. Ecological Information

<b>Ecotoxicity</b>	Not available.
<b>BOD5 and COD</b>	Not available.
<b>Products of Biodegradation</b>	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
<b>Toxicity of the Products of Biodegradation</b>	The product itself and its products of degradation are not toxic.
<b>Special Remarks on the Products of Biodegradation</b>	Not available.

### Section 13. Disposal Considerations

<b>Waste Disposal</b>	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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### Section 14. Transport Information

<b>DOT Classification</b>	CLASS 5.1: Oxidizing material.
<b>Identification</b>	: Oxidizing solid, n.o.s. (Lead chromate) UNNA: 1479 PG: III
<b>Special Provisions for Transport</b>	Not available.
<b>DOT (Pictograms)</b>	

### Section 15. Other Regulatory Information and Pictograms

<b>Federal and State Regulations</b>	<p>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 chromate</p> <p>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 chromate</p> <p>Rhode Island RTK hazardous substances: Lead chromate</p> <p>Pennsylvania RTK: Lead chromate</p> <p>Minnesota: Lead chromate</p> <p>Massachusetts RTK: Lead chromate</p> <p>New Jersey: Lead chromate</p> <p>California Director's List of Hazardous Substances: Lead chromate</p> <p>TSCA 8(b) inventory: Lead chromate</p> <p>TSCA 5(a)2 proposed significant rules: Lead chromate</p> <p>TSCA 12(b) one time export: Lead chromate</p> <p>SARA 313 toxic chemical notification and release reporting: Listed as lead compounds (inorganic compounds)</p>
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**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 chromate

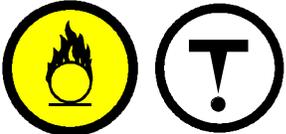
**Other Regulations** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).  
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications**

<b>WHMIS (Canada)</b>	CLASS C: Oxidizing material. CLASS D-2A: Material causing other toxic effects (VERY TOXIC).										
<b>DSCL (EEC)</b>	<table border="0"> <tr> <td>R33- Danger of cumulative effects.</td> <td>S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</td> </tr> <tr> <td>R40- Limited evidence of a carcinogenic effect.</td> <td>S53- Avoid exposure - obtain special instructions before use.</td> </tr> <tr> <td>R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td> <td>S60- This material and its container must be disposed of as hazardous waste.</td> </tr> <tr> <td>R61- May cause harm to the unborn child.</td> <td>S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.</td> </tr> <tr> <td>R62- Possible risk of impaired fertility.</td> <td></td> </tr> </table>	R33- Danger of cumulative effects.	S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).	R40- Limited evidence of a carcinogenic effect.	S53- Avoid exposure - obtain special instructions before use.	R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	S60- This material and its container must be disposed of as hazardous waste.	R61- May cause harm to the unborn child.	S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.	R62- Possible risk of impaired fertility.	
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<b>HMIS (U.S.A.)</b>	<table border="1"> <tr><td>Health Hazard</td><td>2</td></tr> <tr><td>Fire Hazard</td><td>0</td></tr> <tr><td>Reactivity</td><td>0</td></tr> <tr><td>Personal Protection</td><td>E</td></tr> </table>	Health Hazard	2	Fire Hazard	0	Reactivity	0	Personal Protection	E	<b>National Fire Protection Association (U.S.A.)</b>	 <p>Flammability: 1 Health: 2 Reactivity: 0 Specific hazard: OXY</p>
Health Hazard	2										
Fire Hazard	0										
Reactivity	0										
Personal Protection	E										

**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****MSDS Code** L3170**References** Not available.**Other Special Considerations** Not available.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.  
Printed 9/12/2006.

CALL (310) 516-8000

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