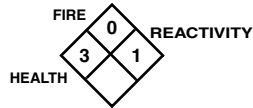


MATERIAL SAFETY DATA SHEET and WARRANTY

A414CS14-5G14

Date: July 14, 2005

Section I Identification



HEALTH	[3]
FLAMMABILITY	[0]
REACTIVITY	[1]
PROTECTION	[H]

Product Name:	LITHOCHROME® Chemstain™ Classic
Color Name:	CS-14 Dark Walnut
Chemical Name:	Mixture
Chemical Family:	Inorganic Salt Solution
Chemical Formula:	Mixture
Emergency Telephone Number:	CHEMTREC (800) 424-9300
Telephone Number for Information:	SCOFIELD (770) 920-6000 (323) 720-3000

Section II Composition/ Information on Ingredients

Composition	Weight	OSHA TWA	ACGIH TLV	CAS Number
Hydrochloric Acid	5–10%	5 ppm	5 ppm	7647-01-0
Sodium Bichromate	5–10%	0.1 mg/m ³	0.05 mg/m ³	10588-01-9
Manganese Chloride	5–10%	5 mg/m ³ (ceiling)	5 mg/m ³ (ceiling)	7773-01-5
Ferrous Chloride	5–10%	1 mg/m ³ (Fe)	1 mg/m ³ (Fe)	7758-94-3

Section III Hazards Identification

Emergency Overview:

Danger! Corrosive — Causes severe eye irritation, possible blindness. Causes eye and skin burns.

May be fatal if swallowed, inhaled, or absorbed through skin. Contact with broken skin may result in ulcers. Prolonged or repeated exposure may cause ulceration or perforation of nasal membranes. **Cancer hazard** — can cause cancer. Risk of cancer depends on duration and level of exposure. Highly reactive with alkaline materials.

Acute Exposure:

Causes severe irritation and damage to eyes, and may cause blindness very rapidly. Causes skin burns and possible deep ulceration. Inhalation of vapor or mist can cause damage to nasal and respiratory passages. Ingestion can result in death on penetration to vital areas. May result in severe liver and/or kidney damage if swallowed.

Chronic Exposure:

Prolonged or repeated eye contact may cause conjunctivitis. Prolonged or repeated skin contact, especially with broken skin, may cause “chrome sores” or dermatitis. Prolonged or repeated inhalation of mist may cause ulceration and perforation of the nasal septum. Epidemiological studies indicate that long term exposure to high levels of mist in the chromate producing industry is associated with increases in respiratory tract cancer in man; the causative agent is not known. Thus far, epidemiological studies have not demonstrated any increased risk of lung cancer at levels below current TLV.

Signs and Symptoms of Exposure:

Inhalation — Irritation of the upper respiratory tract, coughing, sore throat, and shortness of breath.

Eyes — Burning or stinging.

Skin — Irritation, redness, and burning.

Ingestion — Burning of mouth and throat, nausea, vomiting, diarrhea, or dizziness.

Medical Conditions Generally Aggravated by Exposure — Dermatitis

Section IV First Aid Measures

Emergency and First Aid Procedures:

Inhalation — Move to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance: induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Give Cardiopulmonary Resuscitation (CPR) if there is no pulse AND no breathing. Obtain medical attention IMMEDIATELY.

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Section IV First Aid Measures (continued)

Emergency and First Aid Procedures (continued):

Skin — Immediately flush contaminated areas with water. Start flushing while removing contaminated clothing. If irritation persists, repeat flushing. Wash soiled clothing and footwear before reuse. Discard shoes contaminated with this product. If symptoms persist or develop, get medical attention.

Ingestion — Do not induce vomiting. Vomiting will cause further damage to the throat. Give several glasses of water or milk. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in vomitus, rinse mouth and administer more water. IMMEDIATELY contact local poison control center. IMMEDIATELY transport victim to an emergency facility. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing.

Eyes — OBJECT IS TO FLUSH MATERIAL OUT IMMEDIATELY, THEN GET MEDICAL ATTENTION. Flush IMMEDIATELY with large amounts of water while holding eyelids apart. Washing within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY AFTER FLUSHING. If physician is not immediately available, continue flushing with water.

Section V Fire and Explosion Hazard Data

Flash Point (Method Used):	None
Flammable Limits:	Not Applicable
Extinguishing Media:	Nonflammable/noncombustible. Use agents appropriate for surrounding fire.
Special Fire Fighting Procedures:	NIOSH/MSHA pressure-demand, self-contained breathing apparatus should be provided for fire fighters in buildings or confined spaces where this product is stored.
Unusual Fire and Explosion Hazards:	Closed containers may rupture due to high buildup of pressure and weakening of the container structure when exposed to extreme heat. Will give off toxic corrosive fumes of HCl at high temperatures. Reacts with most metals to produce hydrogen gas which can form explosive mixtures in air.

Section VI Accidental Release Measures

Only qualified personnel who have read the product Tech-Data Bulletins and this MSDS should conduct these procedures. Persons not wearing protective equipment should be excluded from the area. Follow procedures in *Section VIII—Exposure Controls/Personal Protection*. Liquid material spills may be slippery. Spilled material may stain the floor and other surfaces.

Cordon off area if necessary to prevent unauthorized traffic or entry. Promptly dike to prevent spreading and stop spill at source. Collect with wet vacuum or absorb with inert material and place in labeled waste container for neutralization and disposal together with all contaminated matter or equipment. If unable to prevent release to soil or waters of the state, immediate notice to local regulatory authorities is required.

Section VII Precautions for Safe Handling and Use

Precautions to Be Taken in Handling and Storing:

Follow personal protection procedures (*Section VIII*) when handling the material. Store upright in a cool, dry, well ventilated area, in tightly closed containers away from combustible materials and sources of heat. Do not use metal containers or equipment. Isolate from other chemicals and materials to avoid chemical incompatibility. Protect from physical damage. Labels must not be removed from containers. Product should only be stored in original containers. Do not reuse empty containers. Empty containers may contain residues which must be neutralized prior to disposal. See *Waste Disposal Methods (Section XIII)* below.

Steps to be Taken During Application and Cleanup Process:

Do not permit runoff. Do not use unless all product, runoff, and rinsate can be kept away from drains, ground water, and soil. Collect all runoff and rinsate with wet vacuum or absorb with inert material and dispose of as detailed in *Waste Disposal Methods (Section XIII)* below.

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Section VIII Exposure Controls/Personal Protection	Ventilation/Engineering Controls:	Adequate ventilation and sufficient local exhaust as needed to maintain exposure below TWA and TLV limits.
	Respiratory Protection:	Wear P100/Hydrogen Chloride respirator (NIOSH TC-84A approved). 3M Company's <i>Tech Line</i> (1-800-243-4630) may be helpful for respirator advice and availability. For respiratory protection guidelines refer to OSHA 29 CFR 1910.134.
	Eye Protection:	Wear chemical-splash goggles.
	Skin Protection:	Wear impervious, chemical-resistant gloves.
	Other Protective Clothing or Equipment:	Wear suitable protective clothing, chemical-resistant apron and boots to avoid skin contact. Emergency eyewash and washing facilities should be available nearby.
	Work/Hygienic Practices:	Minimize exposure in accordance with good hygienic practice. Wash with soap and water immediately after handling.

Section IX Physical and Chemical Characteristics	Boiling Point:	Not determined
	Vapor Pressure (mm Hg.):	Not determined
	Vapor Density (Air = 1):	Not determined
	Solubility in Water:	Soluble
	pH:	< 3.0
	Specific Gravity (H ₂ O = 1):	Approximately 1.0–1.5
	Melting Point:	Not applicable
	Evaporation Rate (Butyl Acetate = 1):	Not determined
	Volatile Organic Compounds:	Nil
Appearance and Odor:	Dark brown liquid. Chlorine odor.	

Section X Stability and Reactivity	Stability:	Stable
	Conditions to Avoid:	Excessive heat
	Incompatibility (Materials to Avoid):	Metals, especially alkali or alkaline earth metals, reducing agents, alkalis, organic and oxidizable materials.
	Hazardous Decomposition or By-products:	May evolve highly toxic chloride and chlorine fumes. Hydrogen may be liberated in contact with certain metals.
	Hazardous Polymerization:	Will not occur.

Section XI Toxicological Information	<p>NTP and IARC have determined that there is sufficient evidence for the carcinogenicity of hexavalent chromium compounds both in humans and experimental animals. However, the hexavalent chromium compounds responsible (for human carcinogenicity) cannot be specified.</p> <p>There is laboratory evidence that aqueous sodium bichromate administered directly into the lung, at the highest tolerated dose, over the lifetime of rats, causes a significant increased incidence of lung cancer.</p> <p>Sodium bichromate contains hexavalent chromium which is classified as an IARC (Group 1) carcinogen, and a known carcinogen by NTP.</p>
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Section XII Ecological Information

Aquatic Toxicity Rating:

LC50 aquatic toxicity rating not determined. Although there is no toxicity data available, it is reasonable to assume that sufficient quantities will affect aquatic life. Precautions should be taken to prevent the accidental release of this material to the environment.

Section XIII Disposal Considerations

Waste disposal method:

Follow personal protection procedures (Section VIII) when rinsing or washing equipment or disposing of material. Rinse or wash equipment in baking soda solution to neutralize pH (acidity). pH neutralized cleanup materials may still contain components listed in this MSDS on Page 1 which are hazardous. Disposal of all residual product, run-off, rinsate, used absorbent materials, and discarded equipment must be in accordance with applicable federal, state, and local regulations. Scofield cannot make specific recommendations for disposal in any particular locality. The user is cautioned to be thoroughly familiar with all applicable requirements before use. Without endorsement of any particular waste disposal company, Scofield offers the following companies as possible resources for the disposal of industrial or hazardous waste:

Onyx Environmental 1-800-426-2382 Heritage Environmental 1-800-827-4374

Companies who dispose of hazardous waste may also be found on the Internet using "Hazardous Waste Disposal" as the key search words.

Section XIV Transport Information

Proper DOT Shipping Name:

Paint related material, 8, UN3066, II

Section XV Regulatory Information

U.S. Federal Regulations:

This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the *Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372*. See Section 2, List Legend 02.

OSHA Standard 19 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training, and access to written records. It is your legal duty to make all information in this Material Safety Data Sheet available to your employees.

Resource Conservation and Recovery Act:

Test waste material for corrosivity, D002, prior to disposal.

State Regulations:

**State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65);
WARNING: This product contains a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm.**

For all state regulations, please check with the appropriate state agency.

International Regulations:

Consult the regulations of the importing country.

Section XVI Other Information

Before using this product: **Completely read the Scofield Tech-Data Bulletin A-414 LITHOCHROME Chemstain Classic and the container label.**

WARRANTY

Since no control is exercised over product use, L. M. Scofield Company (Scofield) represents and warrants only that its products are of consistent quality within manufacturing tolerances. NO OTHER ORAL OR WRITTEN REPRESENTATION OR STATEMENT OF ANY KIND, EXPRESS OR IMPLIED, NOW OR HEREAFTER MADE IS AUTHORIZED OR WARRANTED BY SCOFIELD, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Liability for breach of contract, negligence, or on any other legal basis is limited to the lesser of refund or replacement of defective materials. SCOFIELD WILL NOT BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING FOR DELAYS OR LOST PROFITS. Communication of this warranty and its limitations to end users is not the responsibility of Scofield, but should be communicated by those in direct contract with the end user. Any claim regarding product defect must be received in writing within one year from the date of manufacture. No claim will be considered without such written notice or after the specified time interval. The end user shall determine the suitability of the products for the intended use and assumes all risks and liability in connection therewith.