



# Safety Data Sheet and Warranty

## LITHOCHROME® Chemstain™ Classic

### CS-1 Black, and CS-14 Dark Walnut

06/01/2015 SDS according to GHS OSHA HazCom 29 CFR 1910.1200 and 1272/2008/EC (CLP) amending 1907/2006/EC (REACH)

## 1 IDENTIFICATION OF SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

### 1.1 GHS Product Identifier:

Commercial Product Name: **LITHOCHROME® Chemstain™ Classic, Includes: CS-1 Black and CS-14 Dark Walnut**

Chemical Name: Aqueous mixture of metal salts: May contain one or more of the following chemicals: Manganese II Chloride, Ferrous Chloride and Sodium Bichromate in Hydrochloric Acid solution.

### 1.2 Relevant identified uses of product:

Product is intended for use only by professionals to chemically stain concrete.

### 1.3 Details of the supplier of the safety data sheet:

#### L. M. SCOFIELD Company

6533 Bandini Blvd, Los Angeles, CA 90040

4155 Scofield Road, Douglasville, GA 30134

#### Scofield Phone No. (800) 800-9900

Information Phone Number (323) 720-3000 8AM-5PM M-F

Information Phone Number (770) 920-6000 8AM-5PM M-F

[www.scofield.com](http://www.scofield.com)

### 1.4 Transportation Emergency Telephone Number:

CHEMTREC (800) 424-9300

## 2 HAZARDS IDENTIFICATION

### 2.1 Classification of substance or mixture:

Human Health: GHS and CLP, Irritant, corrosive, and toxin, product can cause serious eye damage

Corrosive to metals, Category 1, H290

Acute Toxicity, Oral, Category 3, H301

Acute Toxicity, Dermal, Category 3, H311

Acute Toxicity, skin burns, serious eye damage, Categories 1A, 1B, 1C, H314

Acute Toxicity, Inhalation, Category 3, H331

Chronic Toxicity, carcinogenicity, STOT, skin, lungs, Category 1B, H350

GHS Category Key

1 = Most Hazardous

5 = Least Hazardous

### 2.2 Label elements:

#### GHS Hazard (H) Statements:

H290--May be corrosive to metals

#### Acute Toxicity

H301--Toxic if swallowed

H311--Toxic in contact with skin

H314--Causes severe skin burns and eye damage

H331--Toxic if inhaled

#### Chronic Toxicity

H350--May cause cancer, RE, STOT, lungs, skin

#### GHS Precautionary (P) Statements:

##### Prevention Precautionary Statements

P102--Keep out of the reach of children

P202--Do not handle until all safety precautions have been read and understood

P261--Avoid breathing fume/gas/mist/vapors/spray

P262--Do not get into eyes, on skin, or on clothing

P264--Wash thoroughly after handling

P270--Do not eat, drink or smoke when using this product

P273--Avoid release into the environment

P280--Wear protective gloves/protective clothing/eye protection/face protection, see section 8 PPE

P284--Wear respiratory protection, see section 8 PPE

##### Response Precautionary Statements

P301+P311--IF SWALLOWED: Immediately call a POISON CENTER (800) 222-1222 or 911



Signal Word: **DANGER**

P301+P330+P331--IF SWALLOWED: rinse mouth, Do NOT induce vomiting.  
 P302+P352--IF ON SKIN: Wash with plenty of water.  
 P304+P340--IF INHALED: Move person to fresh air, keep comfortable for breathing.  
 P305+P351+P338--IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313--If eye irritation persists, get medical attention.

**Disposal Statement**

**2.2 Disposal** P501--Dispose of contents/container and rinsings in accordance with local/state/federal regulations as specified.

**2.3 Other hazards:**

May contain unreacted hexavalent chromium. May cause cancer after repeated exposure, refer to OSHA 1910.1026. Refer to Section 16 for wording of terms.

**3 COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Main Constituents:**

Mixtures of various metal salts: Ferrous chloride, manganese II chloride, and sodium bichromate in hydrochloric acid solution.

**3.2 Mixture**

Dangerous Components	CAS No.	CS-1	CS-14	Chemical Formula
Ferrous Chloride	7758-94-3	0%	5-10%	FeCl <sub>2</sub>
Manganese II Chloride	7773-01-05	<20%	5-10%	MnCl <sub>2</sub>
Sodium Bichromate*	10588-01-9	<20%	5-10%	Na <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>
Hydrochloric Acid	7647-01-0	<10%	5-10%	HCl

\*Chemical is Listed as a Substance of Very High Concern (SVHC) 1272/2008/EC

The exact composition of this product is withheld as a trade secret and as confidential business information.

**4 FIRST AID MEASURES**

**4.1 Description of first aid measures**

Eye Contact: Immediately rinse eyes with plenty of water and for at least 15 minutes, then take person to hospital.  
 Inhalation: Move person to fresh air and keep comfortable for breathing.  
 Skin Contact: Remove contaminated clothing and wash skin with soap and water.  
 Ingestion: Toxic if swallowed, call a poison center (800) 222-1222 or 911 immediately for first aid instructions.

**4.2 Most important symptoms and effects both acute and delayed:**

If eye contact occurs, quickly rinse eyes with large amounts of fresh water, continue rinsing at least 15 minutes. Have an eyewash station as close as possible to work area for product. Ingestion will cause burning of mouth and throat with nausea and vomiting, call a poison center (800) 222-1222 immediately. Inhalation will cause irritation of the upper respiratory system and lungs and may result in permanent damage. Repeated or prolonged exposure can cause respiratory tract cancer, skin cancer or cancer of other organs (liver, kidneys).

**4.3 Indication of any immediate medical attention and special treatment needed:**

If eye contact occurs, immediately flush eyes with water and after flushing eyes take person to hospital emergency room. Seek medical attention when experiencing skin or eye irritation, coughing, burning sensation or if not feeling well. Primary routes of entry: Eyes, skin, inhalation and ingestion are potential primary routes of entry. Ingestion can be very serious. Eye damage can be permanent in some cases. Breathing mists can cause serious irritation or cancer of upper respiratory tract, lungs and other organs.

**5 FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

Use water spray or dry extinguishing media that is suitable for surrounding areas. Acidic metal solution is not combustible.

**5.2 Special Hazards arising from the substance or mixture**

Acid solution has a very low pH and it can react with metals to produce hydrogen gas which is highly explosive.

**5.3 Advice for fire fighting:**

Use water spray to keep containers cool. Avoid contact with strong bases which react dangerously with high exotherm. Firefighters should wear full protective clothing including self-contained breathing apparatus (SCBA).

**6 ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions**

## General measures

Have emergency spill containment materials available. Do not permit discharge of product or rinse water into any waterways or soil area. Neutralize spills with pulverized limestone, slaked lime, soda ash or baking soda. Use absorbent to contain spill, Dispose of the spilled product and the absorbent material in properly marked containers or drums. (See P501 in section 2)

### Protective equipment:

Wear appropriate safety equipment, eye and face protection, chemical resistant gloves and an apron or coat and a tight fitting respirator with acid gas cartridges and particulate/mist filters.

### 6.2 Environmental precautions

Product is toxic to fish and other water species. Do not allow release of product into sewers, waterways or soil.

### 6.3 Methods and material containment and cleaning up:

Contain spills using dikes and/or absorbent materials, such as clays or sawdust or similar materials. Use a shovel to collect and handle waste from spills.

## 7 HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Product is for professional use only. Store product in original containers in a cool dry and shaded area off of the ground. Keep product away from children and animals. Open container slowly and carefully while wearing the proper safety equipment, Keep children and animals away from work area during use of product and afterwards until clean-up is complete.

### 7.2 Conditions for safe storage including any incompatibilities

Product is not compatible with most common metals, including aluminum, magnesium, iron and most steel products. Storage of product in the sun can cause heating and pressure build-up in the container. Keep product in shade during storage. Check compatibility of application equipment before use.

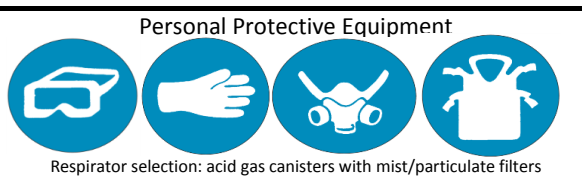
### 7.3 Specific end uses

Product is intended for use only by professionals to stain and color concrete and similar cementitious materials.

## 8 EXPOSURE CONTROL/PERSONAL PROTECTION

### 8.1 Control parameters

Chemical Name	ACGIH TLV	OSHA PEL 8hr	OSHA TWA	NIOSH REL TWA
Ferrous Chloride	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	NDA	1 mg/m <sup>3</sup>
Manganese II Chloride	0.2 mg/m <sup>3</sup>	NDA	NDA	3 mg/m <sup>3</sup>
Sodium Bichromate	0.05 mg/m <sup>3</sup>	0.005 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup>	NDA
Hydrochloric Acid	2 ppm	5 ppm	7 mg/m <sup>3</sup>	NDA



### 8.2 Exposure controls:

NDA = No Data Available

#### Engineering measures:

Use a properly equipped respirator to keep exposure of airborne contaminants below agency or statutory limits.

### 8.3 Individual protective measures:

Eye protection: Wear tight-fitting chemical splash goggles to protect eyes.

Respiratory equipment: Wear a properly fitted respirator with acid gas canisters and mist/particulate filters.

Hand protection: Wear chemical/acid resistant (neoprene) impervious gloves to protect hands from product.

Skin protection: Wear a chemical/acid resistant rubber apron or rubber jacket and boots to protect skin from contact with product.

Hygiene measures: Minimize exposure in accordance with good hygiene practice. Wash with soap, water after handling product.

Environmental exposure controls: Provide eyewash stations close to work areas and adequate ventilation when using product.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information of basic physical and chemical properties

	Physical State/Property	Value/Result
a)	Appearance	colored liquid
b)	pH	< 3.0
c)	Color	various colors
d)	Odor	pungent acid
e)	Flash Point	will not flash
f)	Explosive Limits, Lower	not applicable
g)	Explosive Limits Upper	not applicable
h)	Boiling Point	212 °F (100 °C)

- |  |                      |
|--|----------------------|
| i) Flammability                        | not applicable       |
| j) Relative Density-sp gr, water = 1.0 | 1.1 to 1.5           |
| k) Solubility in water                 | soluble              |
| l) Viscosity                           | similar to water     |
| m) VOC g/L                             | 0.0 g/L (0.0 lb/gal) |

**9.2 Other information:** No other information is available.

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

Reacts vigorously with strong bases liberating heat.

### 10.2 Chemical stability

Product is stable when stored at moderate temperatures and in shaded areas out of direct sunlight.

### 10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur. Reacts rapidly with strong bases causing heat build up.

### 10.4 Conditions to avoid

Avoid heat and direct sunlight.

### 10.5 Incompatible materials

Keep away from strong bases which can react vigorously liberating heat. Contact with metals (aluminum, magnesium and iron) can form hydrogen gas which is potentially explosive.

### 10.6 Hazardous decomposition products:

Product can decompose at high temperatures to form hydrochloric acid fumes. These fumes are highly toxic and corrosive.

## 11 TOXICOLOGICAL INFORMATION

Chemical Name	LD <sub>50</sub> Rat Oral	LC <sub>50</sub> Inhalation	LD <sub>50</sub> Other Exposure Route
Ferrous Chloride	450 mg/kg	no data available	no data available
Manganese II Chloride	250 mg/kg	no data available	no data available
Sodium Bichromate	50 mg/kg	no data available	1000 mg/kg dermal rabbit
Hydrochloric Acid	700 mg/kg	3124 ppm/1 hr (rat)	900 mg/kg oral rabbit

### 11.1 Principal routes of entry:

Ingestion: Toxic if swallowed. Causes chemical burns to mouth, throat and stomach. Causes vomiting, nausea and diarrhea. Aspiration of material into lungs may cause chemical pneumonia, which can be a serious health condition.

### 11.2 Skin Contact:

Corrosive. Causes severe skin irritation and chemical burns, resulting in scarring or serious medical condition.

### 11.3 Inhalation:

Corrosive to the respiratory system. Causes irritation of respiratory tract, chest pain, and coughing. Vapors may cause pulmonary edema, which is a serious medical condition.

### 11.4 Eye contact:

Vapors are corrosive to eyes. Concentrated vapor, mist or splashes can cause severe irritation, burns and blindness.

### 11.5 Specific effects:

Specific effects: Prolonged or repeated exposure can cause chronic bronchitis, redness, swelling, and pain.

### 11.6 Chronic Toxicity:

This product contains one or more components that have been reported to be carcinogens based on IARC, OSHA, ACGIH, or NTP classifications. Refer to OSHA 1910.1026 for details.

Teratogenicity: May alter genetic material

Mutagenicity: Investigated as a mutagen.

Embryotoxicity: May cause reproductive disorders

Specific Target Organ Toxicity, STOT, RE, lungs, skin and other organs

Specific sensitizing, can cause contact dermatitis or contact eczema

## 12 ECOLOGICAL INFORMATION

Chemical Name	Aquatic toxicity fish			Aquatic toxicity invertebrates		
	LC <sub>50</sub>	Species	Interval	EC <sub>50</sub>	Species	Interval

Ferrous Chloride	4 mg/L	Morone saxatilis	96 hr	17 mg/L	Daphnia magna	64 hr
Manganese II Chloride	51 mg/L	Orconectes limosus	96 hr	11 mg/L	Daphnia magna	48 hr
Sodium Bichromate	33.2 mg/L	Pimephales promelas	96 hr	0.035 mg/L	Daphnia magna	48 hr
Hydrochloric Acid	282 mg/L	Gambusia affinis	96 hr	0.45 mg/L	Daphnia magna	48 hr

Ecotoxicity: Toxic to aquatic organisms. May cause long-term effects in the aquatic environment.

**12.2 Persistence and degradability:**

Components are persistent and not degradable.

**12.3 Bioaccumulative potential:**

No information is available.

**12.4 Mobility in soil:**

Mobility: No additional information is available.

Results of PBT and vPvB assessment: Not applicable for inorganic materials.

PBT/vPvB: No additional information is available.

Other adverse affects: None other adverse effects are known.

**13 DISPOSAL CONSIDERATIONS**

**13.1 Disposal P501**--Dispose of contents/container and rinsings in accordance with local/state/federal regulations as specified.

**14 TRANSPORT INFORMATION**

**US DOT**

**14.1 UN proper shipping name**

UN3264, Corrosive liquid, inorganic, acidic, n.o.s.,

**14.2 Transport hazard class(es)**

Hazard Class 8 Corrosive

**14.3 Packing group**

Packing Group II

**14.4 Environmental hazards**

Product is a not a marine pollutant

**14.5 Special precautions for user:** Corrosive

**14.6 Transport in bulk according to:** Annex II of MARPOL 73/78 and IBC Code: Not applicable



**15 REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

OSHA HazCom 2012, 29 CFR 1910.1200 and regulation (EC) No. 1272/2008 CLP of the European Parliament

TSCA Inventory Status All ingredients are listed in the TSCA inventory

REPORTING REQUIREMENTS For SARA Title III					
Dangerous Components	SARA III Section 302	Acute Health Hazard Section 311/312	Chronic Health Hazard Section 311/312	Reactivity Hazard Section 311/312	SARA Title III Sec 313
Ferrous Chloride	not listed	listed	listed	not listed	no requirement
Manganese II Chloride	not listed	listed	listed	not listed	listed
Sodium Bichromate	listed	listed	listed	listed	listed
Hydrochloric Acid	not listed	listed	not listed	not listed	listed

Check with the appropriate state or local agency for regulatory information.

RCRA Hazardous Waste Characteristic Corrosive (Liquid with pH <2.0)

Clean Air Act Listed as a Hazardous Air Pollutant (Hydrochloric Acid)

**15.2 Chemical Safety Assessment**

Right to Know States, Massachusetts, Pennsylvania and New Jersey: hydrochloric acid, chromium compounds, ferrous chloride

For information on labeling go to section 2

There is one TSCA 12b chemical in this product, Sodium Bichromate

**16 OTHER INFORMATION**

**Before using product, read Scofield's Tech-Data Bulletin TD-1320, the complete package label and this SDS & Warranty.**

Wording of terms:

ACGIH American Conference of Government Industrial Hygienists.


CAS No. Chemical Abstract Service, a unique number for each chemical  
 CERCLA Comprehensive Environmental Response, Compensation and Liability Act  
 EC<sub>50</sub> Effective Concentration that has causes 50% mortality of population  
 GHS Global Harmonization System  
 IARC International Agency for Research on Cancer  
 HazCom Hazard Communication  
 LC<sub>50</sub> Lethal Concentration that causes 50% mortality of population  
 LD<sub>50</sub> Lethal Dose that causes 50% mortality of population.  
 NFPA National Fire Prevention Association  
 NIOSH National Institute for Occupational Safety and Health  
 OSHA Occupational Safety & Health Administration  
 PEL Permissible Exposure Limit  
 RCRA Resource Conservation and Recovery Act  
 RE Repeated Exposure  
 REL Recommended Exposure Limit  
 RQ Reportable Quantity  
 SARA III Superfund Amendments and Reauthorization Act  
 SDS Safety Data Sheet (GHS replacement for MSDS)  
 STOT Specific Target Organ Toxicity  
 TLV Threshold Limit Value  
 TSCA Toxic Substances Control Act  
 TWA Time Weighted Average  
 US DOT United States Department of Transportation  
 VOC Volatile Organic Compound(s)  
 WHMIS Workplace Hazardous Materials Information System (Canada)

The details in this document are based on our current knowledge and experience and are only for this product and only in regard to safety requirements.  
 SDS issue date: June 1, 2015

Hazardous Material Information	
Health Hazard	3
Fire Hazard	0
Reactivity Hazard	1
Personal Protection	See sec. 8 PPE

0 = minimal hazard, 4 = extreme hazard

WHMIS Signal Word: **DANGER**




**TOXIC D2A**

WHMIS Classification:

D2A: Carcinogen toxic effects

NFPA 704 Fire



Health 3 0 1 Reactivity  
ACID

0 = low hazard, 4 = high hazard

**California Prop 65: WARNING! This product contains one or more chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.**

**END OF SDS**

#### LIMITED 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 the suitability of the products for the intended use and assumes all risks and liability in connection therewith.