



Multi-Stain Remover

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 08/06/2014 Date of issue: 08/06/2014

Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: Multi-Stain Remover

Intended Use of the Product

Removing Stains from Pool Wall Surfaces

Name, Address, and Telephone of the Responsible Party

Company

Lo-Chlor, LLC
5841 Powerline Rd. Suite 202
Fort Lauderdale, FL 33309
954-491-9810
Lo-chlor.com

Emergency Telephone Number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Acute Tox. 4 (Oral) H302
Skin Corr. 1A H314
Eye Dam. 1 H318
Aquatic Chronic 3 H412

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements (GHS-US)

: P260 - Do not breathe mist, spray, vapors
P264 - Wash hands, forearms, and exposed areas thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position 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
P310 - Immediately call a POISON CENTER or doctor/physician

Multi-Stain Remover

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P321 - Specific treatment (see Section 4)
P330 - If swallowed, rinse mouth
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations

Other Hazards

Other Hazards Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Name	Product identifier	% (w/w)	Classification (GHS-US)
Oxalic acid	(CAS No) 144-62-7	15 - 40	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Eye Dam. 1, H318
Citric acid	(CAS No) 77-92-9	15 - 40	Comb. Dust, H232 Eye Irrit. 2A, H319
Sulfamic acid	(CAS No) 5329-14-6	15 - 40	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Acute 3, H402 Aquatic Chronic 3, H412

Full text of H-phrases: see Section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician.

Eye Contact: Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Do not induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes severe skin burns and eye damage. Harmful if swallowed.

Inhalation: May cause respiratory irritation.

Skin Contact: Highly corrosive to skin.

Eye Contact: Causes serious eye damage.

Ingestion: Harmful if swallowed.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Multi-Stain Remover

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures. May be combustible with the development of hazardous combustion gases or vapors possible in the event of fire.

Explosion Hazard: Product is not explosive.

Reactivity: Thermal decomposition generates : Corrosive vapors.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Sulfur oxides. Nitrogen oxides.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray).

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Stop leak if safe to do so. Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

Reference to Other Sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Specific End Use(s)

Removing Stains from Pool Wall Surfaces.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Oxalic acid (144-62-7)		
Mexico	OEL TWA (mg/m ³)	1 mg/m ³
Mexico	OEL STEL (mg/m ³)	2 mg/m ³
USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
USA ACGIH	ACGIH STEL (mg/m ³)	2 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	1 mg/m ³
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	2 mg/m ³
USA IDLH	US IDLH (mg/m ³)	500 mg/m ³

Multi-Stain Remover

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Alberta	OEL STEL (mg/m ³)	2 mg/m ³
Alberta	OEL TWA (mg/m ³)	1 mg/m ³
British Columbia	OEL STEL (mg/m ³)	2 mg/m ³
British Columbia	OEL TWA (mg/m ³)	1 mg/m ³
Manitoba	OEL STEL (mg/m ³)	2 mg/m ³
Manitoba	OEL TWA (mg/m ³)	1 mg/m ³
New Brunswick	OEL STEL (mg/m ³)	2 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	1 mg/m ³
Newfoundland & Labrador	OEL STEL (mg/m ³)	2 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	1 mg/m ³
Nova Scotia	OEL STEL (mg/m ³)	2 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	1 mg/m ³
Nunavut	OEL STEL (mg/m ³)	2 mg/m ³
Nunavut	OEL TWA (mg/m ³)	1 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	2 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	1 mg/m ³
Ontario	OEL STEL (mg/m ³)	2 mg/m ³
Ontario	OEL TWA (mg/m ³)	1 mg/m ³
Prince Edward Island	OEL STEL (mg/m ³)	2 mg/m ³
Prince Edward Island	OEL TWA (mg/m ³)	1 mg/m ³
Québec	VECD (mg/m ³)	2 mg/m ³
Québec	VEMP (mg/m ³)	1 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	2 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	1 mg/m ³
Yukon	OEL STEL (mg/m ³)	2 mg/m ³
Yukon	OEL TWA (mg/m ³)	1 mg/m ³

Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Gloves. Protective clothing. Face shield.



Materials for Protective Clothing: Corrosionproof clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses. Face shield.

Skin and Body Protection: Corrosionproof clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink or smoke during use

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Crystalline powder
Appearance	: White
Odor	: Odorless
Odor Threshold	: Not available
pH	: < 2

Multi-Stain Remover

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Specific Gravity	: Not available
Solubility	: Soluble
Partition coefficient: n-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

- Reactivity:** Thermal decomposition generates : Corrosive vapors.
- Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- Conditions to Avoid:** Extremely high or low temperatures. Incompatible materials.
- Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers.
- Hazardous Decomposition Products:** Carbon oxides (CO, CO₂). Corrosive vapors. Sulfur oxides. Nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Harmful if swallowed.

LD50 and LC50 Data:

Multi-Stain Remover	
ATE US (oral)	855.37 mg/kg body weight

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

pH: < 2

Serious Eye Damage/Irritation: Causes serious eye damage.

pH: < 2

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Potential Adverse Human Health Effects and Symptoms: Harmful if swallowed.

Symptoms/Injuries After Inhalation: May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: Highly corrosive to skin.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Harmful if swallowed.

Multi-Stain Remover

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Citric acid (77-92-9)	
LD50 Oral Rat	5400 mg/kg
LD50 Dermal Rat	> 2000 mg/kg
Sulfamic acid (5329-14-6)	
LD50 Oral Rat	1450 mg/kg
LD50 Dermal Rat	> 2000 mg/kg
Oxalic acid (144-62-7)	
LD50 Oral Rat	375 mg/kg
LD50 Dermal Rat	20000 mg/kg
ATE US (dermal)	1,100.00 mg/kg body weight

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Harmful to aquatic life with long lasting effects.

Citric acid (77-92-9)	
LC50 Fish 1	1516 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
Sulfamic acid (5329-14-6)	
LC50 Fish 1	70.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	71.6 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Oxalic acid (144-62-7)	
EC50 Daphnia 1	125 - 150 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Persistence and Degradability

Citric acid (77-92-9)	
Persistence and Degradability	Readily biodegradable in water.

Bioaccumulative Potential

Citric acid (77-92-9)	
Log Pow	-1.72 (at 20 °C)
Oxalic acid (144-62-7)	
BCF fish 1	(no bioaccumulation)
Log Pow	-0.81 (at 30 °C)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Ecology – Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name	: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Contains oxalic acid, sulfamic acid)
Hazard Class	: 8
Identification Number	: UN3261
Label Codes	: 8
Packing Group	: III
Marine Pollutant	: Marine pollutant
ERG Number	: 154



Multi-Stain Remover

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.2 In Accordance with IMDG

Proper Shipping Name : CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Contains oxalic acid, sulfamic acid)
Hazard Class : 8
Identification Number : UN3261
Packing Group : III
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B



14.3 In Accordance with IATA

Proper Shipping Name : CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Contains oxalic acid, sulfamic acid)
Packing Group : III
Identification Number : UN3261
Hazard Class : 8
Label Codes : 8
ERG Code (IATA) : 8L



14.4 In Accordance with TDG

Proper Shipping Name : CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Contains oxalic acid, sulfamic acid)
Packing Group : III
Hazard Class : 8
Identification Number : UN3261
Label Codes : 8
Marine Pollutant (TDG) : Marine pollutant



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Multi-Stain Remover	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
Citric acid (77-92-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Sulfamic acid (5329-14-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Oxalic acid (144-62-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

US State Regulations

Sulfamic acid (5329-14-6)
U.S. - New Jersey - Right to Know Hazardous Substance List
Oxalic acid (144-62-7)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Canadian Regulations

Multi-Stain Remover	
WHMIS Classification	Class E - Corrosive Material

Multi-Stain Remover

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Citric acid (77-92-9)	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
IDL Concentration 1 %	
WHMIS Classification	Class E - Corrosive Material
Sulfamic acid (5329-14-6)	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
IDL Concentration 1 %	
WHMIS Classification	Class E - Corrosive Material
Oxalic acid (144-62-7)	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
IDL Concentration 0.1 %	
WHMIS Classification	Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class E - Corrosive Material

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

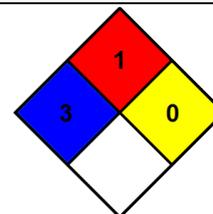
SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 08/06/2014
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Comb. Dust	Combustible Dust
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
H232	May form combustible dust concentrations in air
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

NFPA Health Hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA Fire Hazard : 1 - Must be preheated before ignition can occur.
NFPA Reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Multi-Stain Remover

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 1 Slight Hazard

Physical : 0 Minimal Hazard

Party Responsible for the Preparation of This Document

Lo-Chlor, LLC

5841 Powerline Rd. Suite 202

Fort Lauderdale, FL 33309

954-491-9810

dstivers@teamhorner.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS