



# Metal Gone

## Safety Data Sheet

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

Revision Date: 05/29/2014

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Version: 1.0

### SECTION 1: IDENTIFICATION

#### Product Identifier

**Product Form:** Mixture

**Product Name:** Metal Gone (MG001)

#### Intended Use of the Product

Metal sequestrant/metal stain inhibition for swimming pools.

#### 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](http://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)**

Met. Corr. 1 H290

Skin Corr. 1A H314

Eye Dam. 1 H318

#### Label Elements

##### **GHS-US Labeling**

##### **Hazard Pictograms (GHS-US)**

:



##### **Signal Word (GHS-US)**

: Danger

##### **Hazard Statements (GHS-US)**

: H290 - May be corrosive to metals  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage

##### **Precautionary Statements (GHS-US)**

: P234 - Keep only in original container  
P260 - Do not breathe mist, spray, vapors  
P264 - Wash hands, forearms, and exposed areas thoroughly after handling  
P280 - Wear eye protection, face protection, protective clothing, protective gloves  
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 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  
P321 - Specific treatment (see Section 4)  
P363 - Wash contaminated clothing before reuse  
P390 - Absorb spillage to prevent material damage  
P405 - Store locked up

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P406 - Store in corrosive resistant container with a resistant inner liner  
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

### Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
1-Hydroxyethane-1,1-diphosphonic acid	(CAS No) 2809-21-4	30-60	Met. Corr. 1, H290 Eye Dam. 1, H318
Phosphonic acid [H(P=O)(OH)2]	(CAS No) 13598-36-2	1-5	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314 Eye Dam. 1, H318

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.

**Inhalation:** Inhalation may cause immediate severe irritation progressing quickly to chemical burns.

**Skin Contact:** Highly corrosive to skin.

**Eye Contact:** Causes serious eye damage.

**Ingestion:** May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

**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.

### Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** In case of fire, containers may explode from internal pressure. Cool with water.

**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, CO<sub>2</sub>). Phosphorus oxides.

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### 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. Eliminate ignition sources. 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

**Additional Hazards When Processed:** May be corrosive to metals. May release corrosive vapors.

**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. Protect from frost.

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

**Special Rules on Packaging:** Keep only in original container.

### Specific End Use(s)

Metal sequestrant/metal stain inhibition for swimming pools.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

### 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.

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**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	: Liquid
Appearance	: Yellow/Amber
Odor	: Characteristic
Odor Threshold	: Not available
pH	: < 2
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
Specific Gravity	: 1.1-1.2
Solubility	: Fully miscible
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. Metals.  
**Hazardous Decomposition Products:** Carbon oxides (CO, CO<sub>2</sub>). Phosphorus oxides. Corrosive vapors.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Information on Toxicological Effects - Product

**Acute Toxicity:** Not classified  
**LD50 and LC50 Data:** Not available  
**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:** None expected under normal conditions of use.  
**Symptoms/Injuries After Inhalation:** May cause respiratory irritation.

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

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

**Symptoms/Injuries After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** None expected under normal conditions of use.

### Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

Phosphonic acid [H(P=O)(OH)2] (13598-36-2)	
LD50 Oral Rat	1500 mg/kg
1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)	
LD50 Oral Rat	2400 mg/kg
LD50 Dermal Rabbit	> 7940 mg/kg

## SECTION 12: ECOLOGICAL INFORMATION

**Toxicity** Not classified

Phosphonic acid [H(P=O)(OH)2] (13598-36-2)	
LC50 Fish 1	6980 - 9784 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)	
LC50 Fish 1	868 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	527 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	360 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
NOEC (acute)	1000 mg/kg (Exposure time: 14 Days - Species: Eisenia foetida [soil dry weight])

**Persistence and Degradability** Not available

### Bioaccumulative Potential

1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)	
BCF fish 1	< 50
Log Pow	3.49

**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 LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains etidronic acid, phosphonic acid)  
**Hazard Class** : 8  
**Identification Number** : UN3265  
**Label Codes** : 8  
**Packing Group** : III  
**ERG Number** : 153



### 14.2 In Accordance with IMDG

**Proper Shipping Name** : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains etidronic acid, phosphonic acid)  
**Hazard Class** : 8  
**Identification Number** : UN3265  
**Packing Group** : III  
**Label Codes** : 8  
**EmS-No. (Fire)** : F-A  
**EmS-No. (Spillage)** : S-B



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### 14.3 In Accordance with IATA

**Proper Shipping Name** : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains etidronic acid, phosphonic acid)  
**Packing Group** : III  
**Identification Number** : UN3265  
**Hazard Class** : 8  
**Label Codes** : 8  
**ERG Code (IATA)** : 8L



### 14.4 In Accordance with TDG

**Proper Shipping Name** : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(Contains etidronic acid, phosphonic acid)  
**Packing Group** : III  
**Hazard Class** : 8  
**Identification Number** : UN3265  
**Label Codes** : 8



## SECTION 15: REGULATORY INFORMATION

### US Federal Regulations

<b>Metal Gone (MG001)</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Reactive hazard Immediate (acute) health hazard
<b>Phosphonic acid [H(P=O)(OH)2] (13598-36-2)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

### US State Regulations

<b>Phosphonic acid [H(P=O)(OH)2] (13598-36-2)</b>
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New Jersey - Special Health Hazards Substances List U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term
<b>1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)</b>
U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term

### Canadian Regulations

<b>Metal Gone (MG001)</b>	
WHMIS Classification	Class E - Corrosive Material
<b>Phosphonic acid [H(P=O)(OH)2] (13598-36-2)</b>	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
<b>1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)</b>	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class E - Corrosive Material
<b>Water (7732-18-5)</b>	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

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WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
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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.

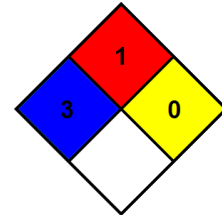
### SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision date** : 05/29/2014  
**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 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

**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.



#### 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

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*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