

**Gardacid® P 4309**

Version 0.1

Revision Date 06/04/2015

Print Date 06/04/2015

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Gardacid® P 4309

Substance number : REL\_11448

Chemical usage : Scale remover.

**Manufacturer or supplier's details**

Company : Chemetall US, Inc.

Address : 675 Central Avenue  
New Providence NJ 07974

Telephone : (800) 526-4473

Telefax : (908) 464-4658

Emergency telephone no : CHEMTREC - 800-424-9300, 1-703-527-3887 (International)

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

Appearance	liquid
Colour	light yellow
Odour	stinging
Hazard Summary	Causes severe burns. Oxidizing properties. Reacts violently with water. Also harmful by inhalation and if swallowed. Inhalation of sulfuric acid mist may cause cancer

**GHS Classification**

Skin corrosion : Category 1A

Serious eye damage : Category 1

Carcinogenicity : Category 1A

**GHS Label element**

Hazard pictograms :



Signal word : Danger

Hazard statements : Causes severe skin burns and eye damage.

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May cause cancer.

## Precautionary statements

: **Prevention:**

Obtain special instructions before use.

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

Wash skin thoroughly after handling.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

Use personal protective equipment as required.

**Response:**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

IF exposed or concerned: Get medical advice/ attention.

Wash contaminated clothing before reuse.

**Storage:**

Store locked up.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

**Potential Health Effects**

Inhalation

: yes

Skin

: yes

Ingestion

: yes

Aggravated Medical  
Condition

: None known.

**Carcinogenicity:****IARC**

Group 1: Carcinogenic to humans

Sulfuric acid

7664-93-9

**ACGIH**

Suspected human carcinogen

Sulfuric acid

7664-93-9

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

Known to be human carcinogen

Sulfuric acid

7664-93-9

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture :

**Hazardous components**

Component	CAS-No.	Weight percent
Sulfuric acid	7664-93-9	70 - 90

Unidentified ingredients are considered not hazardous under Federal Hazard Communication Standard (29CFR 1910.1200).

Specific chemical identity of composition has been withheld as a trade secret.

Exact percentage of composition has been withheld as a trade secret.

**SECTION 4. FIRST AID MEASURES**

- If inhaled : Remove to fresh air.  
If symptoms persist, call a physician.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.  
Take off contaminated clothing and shoes immediately.  
Get medical attention immediately if irritation develops and persists
- In case of eye contact : Rinse immediately with plenty of water for at least 15 minutes.  
Keep eye wide open while rinsing.  
Get medical attention immediately
- If swallowed : Rinse mouth.  
Drink 1 or 2 glasses of water.  
Never give anything by mouth to an unconscious person.  
Get medical attention immediately

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Carbon dioxide (CO2)  
Dry chemical  
Foam
- Further information : Use CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.
- Methods and materials for containment and cleaning up : Clean up with inert absorbant material.  
Keep in suitable, closed containers for disposal.  
Flush with plenty of water.
- Additional advice : Never return spills in original containers for re-use.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : Add this product to surface of solution slowly to avoid spattering  
Do not add large amounts of product to solution at any one time.
- Conditions for safe storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination.  
Store indoors in a cool, well-ventilated place

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Sulfuric acid	7664-93-9	TWA (Thoracic fraction)	0.200000 mg/m3	ACGIH
		TWA	1.000000 mg/m3	NIOSH REL
		TWA	1.000000 mg/m3	OSHA Z-1
		TWA	1.000000 mg/m3	OSHA P0

**Personal protective equipment**

- Respiratory protection : If the occupational exposure limits cannot be met, suitable respirator equipment shall be worn.
- Hand protection
- Remarks : Nitrile rubber Neoprene gloves
- Eye protection : Chemical resistant goggles must be worn.  
Face-shield
- Skin and body protection : protective suit
- Hygiene measures : Avoid contact with skin, eyes and clothing.  
Wear suitable gloves and eye/face protection.  
Wear suitable protective clothing.

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Wash hands before breaks and immediately after handling the product.  
Provide adequate ventilation.  
Do not inhale fumes.  
Keep away from food and drink.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: liquid
Colour	: light yellow
Odour	: stinging
pH	: < 2.0
Freezing point	: < -13.89 °C
Boiling point/boiling range	:
Flash point	: does not flash
Evaporation rate	: 1 Water = 1
Upper explosion limit	: not applicable
Lower explosion limit	: not applicable
Vapour pressure	: no data available
Relative density	: 1.675
Bulk density	: 13.98 lb/gal
Solubility(ies)	
Water solubility	: completely soluble
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available

**SECTION 10. STABILITY AND REACTIVITY**

Incompatible materials	: Bases Warning! Do not use together with other products. May release dangerous gases (chlorine).
Hazardous decomposition products	: Boron oxides Carbon oxides Sulphur oxides Hydrogen when reacts with certain metal.

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Product:

Acute oral toxicity : Acute toxicity estimate : 2,834.000000 mg/kg  
Method: Calculation method

#### Components:

##### **Sulfuric acid:**

Acute oral toxicity : LD50 rat: 2,140.000000 mg/kg

Acute inhalation toxicity : LC50 rat: 0.510000 mg/l  
Exposure time: 2 h

LC50 mouse: 0.320000 mg/l  
Exposure time: 2 h

### Skin corrosion/irritation

#### Components:

##### **Sulfuric acid:**

Result: Severe skin irritation

### Serious eye damage/eye irritation

#### Components:

##### **Sulfuric acid:**

Result: Moderate eye irritation

### Respiratory or skin sensitisation

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

### Reproductive toxicity

no data available

### STOT - single exposure

no data available

### STOT - repeated exposure

no data available

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**Aspiration toxicity**

no data available

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

no data available

**Bioaccumulative potential****Product:**Partition coefficient: n-  
octanol/water : Remarks: no data available**Other adverse effects**

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Refer to all federal, provincial, state and local regulation prior to disposition of container and unused contents by reuse, recycle or disposal.

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**SECTION 14. TRANSPORT INFORMATION****International regulation****Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations**

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**SECTION 15. REGULATORY INFORMATION****TSCA Status** : All components of this material comply with US TSCA requirements.**OSHA Hazards** : Carcinogen, Highly toxic by inhalation  
**WHMIS Classification** : E: Corrosive Material**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric acid	7664-93-9	1,000	1,325

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**SARA 304 Extremely Hazardous Substances Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric acid	7664-93-9	1,000	1,325

**SARA 311/312 Hazards** : Chronic Health Hazard  
 Acute Health Hazard

**SARA 302** : The following components are subject to reporting levels established by SARA Title III, Section 302:  
 Sulfuric acid 7664-93-9

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:  
 Sulfuric acid 7664-93-9

**US State Regulations****Massachusetts Right To Know**

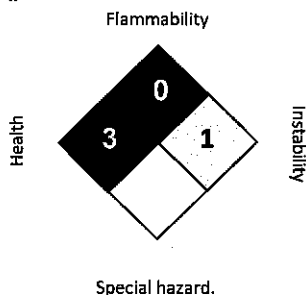
Sulfuric acid 7664-93-9  
 Diethyl thiourea 105-55-5

**Pennsylvania Right To Know**

Sulfuric acid 7664-93-9  
 water 7732-18-5

**New Jersey Right To Know**

Sulfuric acid 7664-93-9  
 water 7732-18-5

**NFPA:****HMIS III:**

<b>HEALTH</b>	<b>3</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>1</b>

0 = not significant, 1 = Slight,  
 2 = Moderate, 3 = High  
 4 = Extreme, \* = Chronic

Corrosive Acid

Splash Goggles, Gloves, Apron, Dust  
 and Vapour Respirator

**SECTION 16. OTHER INFORMATION**



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**Further information**

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