



Safety Data Sheet

Issue Date: 01-Jan-2011

Revision Date: 12-Nov-2013

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Cal 589

Other means of identification

SDS # CPCI-015

UN/ID No UN1786

Recommended use of the chemical and restrictions on use

Recommended Use Aluminum brightener.

Details of the supplier of the safety data sheet

Supplier Address

Cal Pac Chemicals, Inc
6231 Maywood Ave
Huntington Park, CA 90255

Emergency Telephone Number

Company Phone Number (323) 585-2178

Emergency Telephone (24 hr) Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Appearance Clear, light amber liquid

Physical State Liquid

Odor No odor

Classification

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 2
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A
Corrosive to Metals	Category 1

Signal Word**Danger****Hazard Statements**

Toxic if swallowed

Fatal in contact with skin

Fatal if inhaled

Causes severe skin burns and eye damage

May cause cancer

May be corrosive to metals

**Precautionary Statements - Prevention**

Obtain special instructions before use

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

Use personal protective equipment as required

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not get in eyes, on skin, or on clothing

Do not breathe dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Wear respiratory protection

Keep only in original container

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention

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

Immediately call a POISON CENTER or doctor/physician

Wash contaminated clothing before reuse

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 SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Rinse mouth

Do not induce vomiting

IN CASE OF SPILL: Absorb spillage to prevent material damage

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Store in corrosive resistant container with a resistant inner liner

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Sulfuric Acid	7664-93-9	>20
Hydrofluoric acid	7664-39-3	<10

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.
Skin Contact	Wash off immediately with plenty of water. Wash skin thoroughly with mild soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. Get medical attention immediately.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. Seek immediate medical attention/advice.
Ingestion	Rinse mouth. Immediately drink large amounts of milk, water, or gelatin solution. Induce vomiting, but only if victim is fully conscious. Seek medical attention immediately.

Most important symptoms and effects

Symptoms	Prolonged contact may even cause severe skin irritation or mild burn. May cause eye burns and permanent eye damage. May cause irritation to the mucous membranes and upper respiratory tract. Irritation and corrosive burns to mouth, throat, and stomach. Ingestion may cause vomiting. Ingestion may cause nervous system depression.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Possible fluoride exposure.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray (fog).

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Contents are corrosive and all personal contact must be avoided. Contact with metals may evolve flammable hydrogen gas.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Personal Precautions** Use personal protective equipment as required.
- Environmental Precautions** Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

- Methods for Containment** Prevent further leakage or spillage if safe to do so.
- Methods for Clean-Up** Collect with dry sand, clay, or other absorbent. Carefully neutralize the dilute liquid with caustic soda, lime, or other alkaline material. Wash spill area with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling

- Advice on Safe Handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Use only in well-ventilated areas.

Conditions for safe storage, including any incompatibilities

- Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep locked up and out of reach of children. Store away from food stuffs. Keep only in original container.
- Incompatible Materials** Strong alkalis. Chlorinated compounds. copper. Brass. Aluminum. Tin. Zinc. Heavy metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric Acid 7664-93-9	TWA: 0.2 mg/m ³ thoracic fraction	TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³	IDLH: 15 mg/m ³ TWA: 1 mg/m ³
Hydrofluoric acid 7664-39-3	TWA: 0.5 ppm F TWA: 2.5 mg/m ³ F S* Ceiling: 2 ppm F	TWA: 3 ppm F TWA: 2.5 mg/m ³ F TWA: 2.5 mg/m ³ dust (vacated) TWA: 3 ppm F (vacated) TWA: 2.5 mg/m ³ (vacated) STEL: 6 ppm F	IDLH: 30 ppm Ceiling: 6 ppm 15 min Ceiling: 5 mg/m ³ 15 min TWA: 3 ppm TWA: 2.5 mg/m ³

Appropriate engineering controls

- Engineering Controls** Use local mechanical ventilation capable of maintaining emissions below or at the applicable occupational exposure limits. Eyewash stations.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Face shield. Wear safety glasses with side shields (or goggles).
- Skin and Body Protection** Rubber or acid resistant gloves. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
- Respiratory Protection** NIOSH-approved acid cartridge respirator in areas of high mist or fume concentration.
- General Hygiene Considerations** Wash after handling, paying special attention to areas under fingernails.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	No odor
Appearance	Clear, light amber liquid	Odor Threshold	Not determined
Color	Light amber		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	>1.4	(1% solution in water)
Melting Point/Freezing Point	Not available	
Boiling Point/Boiling Range	Not available	
Flash Point	Not combustible	
Evaporation Rate	Not available	
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	Not applicable	
Lower Flammability Limit	Not applicable	
Vapor Pressure	Not available	
Vapor Density	Not available	
Specific Gravity	1.09	(1=Water)
Water Solubility	Completely soluble	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not available	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Use plastic taps or pumps for dispensing. Do not use aluminum, zinc, or white metal fitting taps with stock solution tanks.

Incompatible Materials

Strong alkalis. Chlorinated compounds. copper. Brass. Aluminum. Tin. Zinc. Heavy metals.

Hazardous Decomposition Products

Reactions with metals may produce hydrogen gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Causes severe eye damage.
Skin Contact	Causes severe skin burns. Fatal in contact with skin.
Inhalation	Fatal if inhaled.
Ingestion	Toxic if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sulfuric Acid 7664-93-9	= 2140 mg/kg (Rat)	-	= 510 mg/m ³ (Rat) 2 h
Hydrofluoric acid 7664-39-3	-	-	= 850 mg/m ³ (Rat) 1 h = 1276 ppm (Rat) 1 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Note: The agencies below have listed Strong Inorganic Acid Mists, Containing Sulfuric Acid as a known carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sulfuric Acid 7664-93-9	A2	Group 1	Known	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sulfuric Acid 7664-93-9		500: 96 h Brachydanio rerio mg/L LC50 static		29: 24 h Daphnia magna mg/L EC50
Hydrofluoric acid 7664-39-3		660: 48 h Leuciscus idus mg/L LC50		270: 48 h Daphnia species mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Hydrofluoric acid 7664-39-3	-1.4

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Hydrofluoric acid 7664-39-3	U134			U134

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Sulfuric Acid 7664-93-9	Toxic Corrosive

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN1786
 Proper Shipping Name Hydrofluoric acid and Sulfuric acid mixtures
 Hazard Class 8
 Subsidiary Hazard Class 6.1
 Packing Group I

IATA

Cargo Aircraft only
 UN/ID No UN1786
 Proper Shipping Name Hydrofluoric acid and Sulfuric acid mixture
 Hazard Class 8
 Subsidiary Hazard Class 6.1
 Packing Group I

IMDG

UN/ID No UN1786
 Proper Shipping Name Hydrofluoric acid and Sulfuric acid mixture
 Hazard Class 8
 Subsidiary Hazard Class 6.1
 Packing Group I

15. REGULATORY INFORMATION

International Inventories

Not determined

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sulfuric Acid 7664-93-9	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ
Hydrofluoric acid 7664-39-3	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Sulfuric Acid - 7664-93-9	7664-93-9	>20	1.0
Hydrofluoric acid - 7664-39-3	7664-39-3	<10	1.0

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sulfuric Acid 7664-93-9 (>20)	1000 lb			X
Hydrofluoric acid 7664-39-3 (<10)	100 lb			X

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Sulfuric Acid - 7664-93-9	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sulfuric Acid 7664-93-9	X	X	X
Hydrofluoric acid 7664-39-3	X	X	X

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Special Hazards
	2	0	1	Acid
HMIS	Health Hazards	Flammability	Physical Hazards	Personal Protection
	Not determined	Not determined	Not determined	Not determined

Issue Date: 01-Jan-2011
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Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet