

\*\*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\*\*

**SL-812 LIME & SCALE REMOVER**

SUNBELT LABORATORIES P.O. BOX 1563 STAFFORD, TEXAS 77497 (281) 261-4747

**EMERGENCY ASSISTANCE**

For emergency assistance involving chemicals call CHEM-TEL (800) 255-3924

**PRODUCT IDENTIFICATION**

PRODUCT NAME: SL-812 LIME & SCALE REMOVER DATE PREPARED: 03-23-90  
 IDENTITY: LIME AND SCALE REMOVER DATE REVISED: 08-20-04  
 CHEMICAL FAMILY: MIXED MINERAL ACIDS AND ORGANIC ACID

**HAZARDOUS INGREDIENTS**

| MATERIAL                                  | CAS #     | OSHA PEL        | AGCIH TLV  |
|---|-----------|-----------------|------------|
| Phosphoric Acid                           | 7664-38-2 | 1 mg/M(3)       | 1 mg/M(3)  |
| Amido Sulfuric Acid                       | 5329-14-6 | Not established |            |
| 2-Hydroxy-1,2,3-propanetricarboxylic Acid | 77-92-9   | 5 mg/M(3)       | 10 mg/M(3) |

HAZARD RATINGS: HAZARD RATING SCALE:  
 Health: 3 0=Minimal 3=Serious  
 Fire: 0 1=Slight 4=Severe  
 Reactivity: 1 Special: None 2=Moderate

**PHYSICAL DATA**

|                            |                    |  |          |
|----------------------------|--------------------|--|----------|
| BOILING POINT, @ 760 mm Hg | > 212 F            | SOLUBILITY IN WATER                    |          |
| 100%                       |                    | VAPOR PRESSURE, mm Hg @ 77 F           | <        |
| SPECIFIC GRAVITY @ 77 F    | 1.110              | VOLATILES, BY VOLUME                   |          |
| 1                          | < 1                |  | 65       |
| VAPOR DENSITY, (AIR=1)     |                    | ODOR                                   | PLEASANT |
| APPEARANCE @ 77 F          | CLEAR GREEN LIQUID | FREEZE POINT                           | < 32 F   |
| pH (100%)                  | 1.10               | EVAPORATION RATE (BUTYL ACETATE=1) < 1 |          |
| F                          |                    |  |          |

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT, TOC,: None to Boil.  
 FLAMMABLE LIMITS IN AIR, % BY VOLUME: Unknown. LOWER: Undetermined. UPPER: Undetermined.  
 EXTINGUISHING MEDIA: Use Carbon Dioxide or Dry Chemical on small fires. Use foam (alcohol, polymer or ordinary) and water spray for large fires.  
 SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.  
 UNUSUAL FIRE & EXPLOSION HAZARDS: None known to Sunbelt Laboratories.

**HEALTH HAZARD DATA**

PRIMARY ROUTES OF EXPOSURE: Eye or Skin contact, Ingestion & Inhalation.

SIGNS AND SYMPTOMS OF EXPOSURE:

ACUTE:

EYES: Immediate burning, extreme irritation.

SKIN: Mists and liquid are extremely corrosive to the skin.

INGESTION: Immediate burning of all tissues contacted by the liquid. Swallowing the liquid burns the tissues, causes severe abdominal pain, nausea, vomiting and collapse.

INHALATION: Immediate burning of all tissue contacted by the mists and the vapors.

CHRONIC:

EYES: Can cause permanent damage, including blindness.

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SKIN: Chemical burns and permanent damage to the dermal layers, scarring.

INGESTION: Erosion of all tissues in the gastrointestinal tract and digestive system that comes in contact

with the liquid. Subsequent damage can include perforation of the esophageal or abdominal tissues.

INHALATION: Can cause permanent damage to tissues that come in contact with the liquid.

CARCINOGENICITY: This product is not known to contain any carcinogenic ingredients.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

EYES: Extreme burning of the eyes tissues.

SKIN: Liquid that touches the skin will produce an irritation in the areas where this product makes contact.

INGESTION: Extreme sour taste.

INHALATION: Corrosion of all respiratory tract tissues contacted.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush with water and seek immediate medical attention from medical doctor or an optometrist.

SKIN: Flush affected spill area with copious amounts of water until the product is no longer there and has been diluted.

INGESTION: DO NOT Induce Vomiting. Consume as much water as possible. Immediate medical attention of a physician should be sought. If ingestion occurs a serious condition can develop if a physician is not quickly sought and first aid procedures are not followed.

INHALATION: Remove to fresh air. If breathing is difficult, immediate medical attention has to be sought.

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REACTIVITY DATA

STABILITY (THERMAL, LIGHT, ETC): Stable.

INCOMPATIBILITIES (MATERIALS TO AVOID): Alkalis, oxidizing or reducing compounds, cyanides, sulfides or combustible materials. Keep away from formaldehyde. Contact with nitrates, nitrites, chlorates, chlorine, hypochlorous acid, and sodium hypochlorites. Reactive metals are: mild steel, copper, brass, bronze and metal oxides.

HAZARDOUS DECOMPOSITION PRODUCTS: Phosphorous oxides, sulfur oxides, carbon monoxide and carbon dioxide.

POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Contact with any of the substances listed in the "incompatibles" above.

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**SPILL, LEAK AND DISPOSAL PROCEDURES**

**ACTIONS TO TAKE FOR SPILLS OR LEAKS:** Wear protective clothing including rubber gloves, rubber boots, and a supplied air respirator if in a confined area, always wear eye protection. For small spills or drips, dilute with plenty of water and flush to sewer. For large spills, contain by diking with soil or other sorbent material and then pump into DOT approved waste containers. Comply with all applicable governmental regulations on spill reporting, and handling and disposal of waste.

**DISPOSAL METHODS:** Dispose of contaminated product and materials used for cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state and local regulatory agencies to ascertain proper waste disposal procedures.

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**SPECIAL PRECAUTIONS**

**HANDLING AND STORAGE PRECAUTIONS:** Store in cool dry place away from incompatible materials. Protect from freezing. Wash thoroughly after use. Do not get in eyes, on skin, or on clothing.

**OTHER PRECAUTIONS:** Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings and handle empty containers as if they were full. Do not take internally.

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**CONTROL MEASURES**

**RESPIRATORY PROTECTION:** No special protection required if used in normal situations.

**VENTILATION:** General room ventilation is good.

**PROTECTIVE GLOVES:** Rubber gloves are recommended.

**EYE PROTECTION:** Glasses with splash shields, goggles or face shield to prevent eye contact during normal use is recommended.

**OTHER PROTECTIVE MEASURES:** Good personal hygiene practices. Clean up contaminated equipment and clothing before reuse.

**WORK HYGIENIC PRACTICES:** Keep off skin & out of reach of children.

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**FOR ADDITIONAL INFORMATION**

**CONTACT:** Technical Director, Sunbelt Laboratories, during business hours, central time; (281) 261-4747.

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