



SAFETY DATA SHEET

1. Identification of the Substance and Company

Liquid Descaler

Acid Based Scale Remover

Product No. 1051

MSDS No. 1051

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STERIS Corporation, P. O. Box 147, St. Louis, MO 63166, US

Emergency Telephone No.1-314-535-1395 (STERIS); 1-800-424-9300 (CHEMTREC)

Telephone Number for Information: 1-800-548-4873 (Customer Service-Healthcare Products)

2. Hazards Identification: Corrosive

3. Composition/Information on Ingredients

Hazardous Component(s)	% By Wt.	CAS No.	EU No.	R Phrases	Symbol	Oral LD ₅₀	Inhalation LC ₅₀
Phosphoric Acid	30 - 60	7664-38-2	231-633-2	NA	NA	1530 mg/kg (rat)	61-1689 mg/m ³ P ₂ O ₅ /1hr (Guinea pig, mouse, rat, rabbit)
Glycolic Acid	1 - 5	79-14-1	201-180-5	NA	NA	1938 mg/kg (rat)	3.6 mg/L/4hr (male rats)

4. First Aid Measures

Eye Contact: Flush eyes immediately with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact: Flush skin immediately with plenty of water for at least 15 minutes. Get medical attention.

Inhalation: Remove patient to fresh air. If not breathing, give artificial respiration. Get medical attention.

Ingestion: Do not induce vomiting. Get medical attention. Do not give anything by mouth to an unconscious person. If conscious, drink a large quantity of milk or water.

5. Fire-Fighting Measures

Conditions of Flammability/Flash Point/Auto-ignition Temperature: ND **Method:** NA

Upper Flammable Limit: NA **Lower Flammable Limit:** NA

Special Hazards: Product will not burn, but may splatter if temperature exceeds boiling point.

Explodability Data: ND **Extinguishing Media:** Use water fog or carbon dioxide.

Special Fire Fighting Procedures: Wear positive-pressure self-contained breathing apparatus.

Hazard Combustion Products: Toxic gases of carbon oxides, nitrogen oxides and sulfur oxides upon thermal decomposition.

6. Accidental Release Measures: Contain spill and neutralize by smothering with excess lime or soda ash. Scoop spilled materials into container for disposal.

7. Handling and Storage

7.1 Handling: Avoid breathing spray mist. Keep away from heat and flame. Use with adequate ventilation.

7.2 Storage: Store in a cool, dry area away from alkalides, sulfides and sulfites.

8. Exposure Control/Personal Protection

8.1 Occupational Exposure Limits: Phosphoric Acid: OSHA PEL and ACGIH TLV = 1mg/m³ / STEL=3mg/m³

8.2 Personal Protection

Respirator Protection: MSHA/NIOSH approved respirator.

Eye Protection: Splash proof chemical goggles and full face shield.

Protective Gloves: Neoprene **Other Protective Clothing and Equipment:** Rubber boots and rubber suit.

Engineering Controls/Ventilation: Provide general or local exhaust ventilation systems to control any release to the environment in excess of the specified threshold limits.

9. Physical and Chemical Properties

Solubility in Water: Complete

Specific Gravity: ~ 1.38 @ 25°C

Physical State/Appearance/Odor: Clear violet liquid

pH (1%): ~ 1.85

Odor Threshold, Vapor Pressure, Vapor Density, Evaporation Rate, Boiling Point and Freezing Point: Not Available **Coefficient of Water/Oil Distribution:** Not Applicable

10. Stability and Reactivity

Stability: Stable

Hazardous Polymerization: May occur

Incompatible Materials: Alkalies, sulfides and sulfites.

Conditions to Avoid/Conditions of Reactivity: None known.

Hazardous Decomposition or Byproducts: Toxic gases of carbon oxides, nitrogen oxides and sulfur oxides upon thermal decomposition.

11. Toxicological Information

11.1 Acute (Primary Routes of Exposure)

Eyes (Irritancy): Corrosive. Contact will cause severe eye burns.

Skin (Irritancy or Sensitization): Corrosive. Contact will cause severe burns. Irritation and dermatitis may also occur.

Inhalation: Mists are severely irritating to nose, throat and lungs and causes a burning sensation. Coughing, wheezing, bronchitis, pneumonitis and pulmonary edema may occur.

Ingestion: Corrosive. Will cause severe burns and extensive tissue perforation of mucous membranes of the mouth, throat, esophagus and stomach.

11.2 Long Term Exposure: **Glycolic acid:** Repeated dosing in cats produced weight and appetite loss, depression, vomiting, coma, convulsions, kidney failure due to calcium oxalate deposition and death; dogs given similar and higher doses exhibited no toxic effects. Long-term dosing in male and female rats resulted in higher mortality in male rats (60-70%) and kidney toxicity due to calcium oxalate deposition. Female rats exhibited no toxic effects. In an animal test there was no evidence of neurotoxic or immunologic effects. No animal test reports are available to define carcinogenicity. At high dietary levels, animal data show developmental toxicity but only at exposure levels producing other toxic effects in the adult animal. Glycolic acid is not considered a unique developmental hazard to the conceptus. The compound does not produce genetic damage in bacterial cell cultures. It has not produced genetic damage in tests on animals. There was no evidence of reproductive effects in an animal test. **Carcinogenicity:** IARC, NTP and OSHA do not list this product or its ingredients as carcinogens.

Reproductive Toxicity/Teratogenicity/Mutagenicity/Toxicologically Synergistic Products: ND

12. Ecological Information: None Available

13. Disposal Considerations: Dispose in accordance with local, state, and Federal regulations.

14. Transport Information

Shipping Name: Phosphoric Acid Solution, 8, Corrosive, UN 1805, PG III

ROAD/RAIL: ADR/RID Class: UN 1805, Phosphoric Acid Solution

SEA IMDG Class: Phosphoric Acid Solution, 8, Corrosive, UN 1805, PG III (**Not** a Marine Pollutant)

AIR ICAO/IATA Class: 4 x1 gallon package restricted from air shipment; 5 gallon pail: Phosphoric Acid Solution, 8, Corrosive, UN 1805, PG III

15. Regulatory Information:

WHMIS Classification: E – Corrosive Material

This product has been classified in accordance with the hazard criteria of the controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Registration.

16. Other Information: The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions or recommendations are not followed NA - Not Applicable ND - No Data