



**Section 3: HAZARDS IDENTIFICATION - continued:**

**Chronic / Long Term Effects:** Repeated exposure may produce erosion and discoloration of teeth. May cause systemic toxic effects such as hypocalcemia. 2-Butoxyethanol has caused red blood cell hemolysis in lab animals and secondary injury to the liver and kidney.

**Signs and Symptoms of Overexposure:** Overexposure may cause delayed skin burns, contact dermatitis, bronchitis with cough, phlegm, shortness of breath and emphysema, can cause chronic runny nose, tearing of the eyes, nosebleeds and stomach upsets.

**Target Organ Effects:** Skin, lungs and upper respiratory tract, liver, kidney.

**Reproductive/Developmental Information:** No data.

**Carcinogenic Information:** This material is not listed as a carcinogen by IARC, NTP or OSHA.

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**Section 4: FIRST AID MEASURES**

**EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

**SKIN:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Overexposure may produce hypocalcemia, therefore systemic administration of calcium gluconate may be necessary.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**INGESTION:** Seek medical attention immediately. Do not induce vomiting. If victim is alert, give 1/2 to 1 glass of water. Call a poison control center or doctor for treatment advice.

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**Section 5: FIRE FIGHTING MEASURES**

**Flash Point:** No flash by standard methods

**Extinguishing Media:** Use appropriate methods for combating surrounding fire.

**Special Fire Fighting Instructions:** Wear a self contained breathing apparatus with a full face piece operated in the positive pressure demand mode. Chemical resistant PPE is recommended.

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**Section 6: ACCIDENTAL RELEASE MEASURES**

Stop all leaks. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Absorb spill with inert material (e.g. dry sand, earth). Prevent runoff from entering drains, sewers or other bodies of water. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

**Section 7: HANDLING AND STORAGE**

Follow all MSDS/label precautions even after container is emptied because they may contain product residues. Use with adequate ventilation. Do not get in eyes, on skin or clothing. Store in a cool, dry place. Keep container closed when not in use. Keep out of reach of children.

**Section 8: EXPOSURE CONTROLS and PERSONAL PROTECTION**

**Eye Protection:** Wear safety glasses or goggles and face shield. Remove contact lenses.

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Skin Protection: To prevent repeated or prolonged contact, wear impervious gloves (made from rubber, nitrile or neoprene), clothing and boots.

Respiratory Protection: When respiratory protection is required, use an acid gas cartridge. A respiratory program that meets OSHA's 29 CFR 1910.34 & ANSI Z88.2 requirements must be followed.

Engineering Controls: Good general ventilation required.

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**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance and Odor: Clear, colorless liquid with acid odor  
pH Concentrate: 1.0  
Solubility in Water: Complete  
Vapor Pressure [mmHg]: n/e  
Evaporation Rate (Butyl Acetate=1): n/e  
Vapor Density [Air=1]: n/e  
Specific Gravity [H2O=1]: 1.02  
Boiling Point: > 220 F

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**Section 10: REACTIVITY**

Stability: Stable  
Hazardous Polymerization: Will not occur  
Conditions to avoid: High temperature  
Hazardous Decomposition Products: CO, CO2, H2, SO2  
Incompatibility: Strong alkalis, oxidizers, organic matter, certain metals

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**Section 11: TOXICOLOGICAL INFORMATION**

2-Butoxyethanol: SKIN-Rabbit; 24 hr uncovered-minimal erythema in 2/5; no irritation 3/5  
Sulfuric Acid: LD50 (oral, rat)=2140 mg/kg, LC50 (inhalation, rat)  
=510 mg/m3 for 2 hrs, Skin effects (rabbit):severe irritation, Eye effects (rabbit):  
severe irritation

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**Section 12: ECOLOGICAL INFORMATION**

2-Butoxyethanol: Toxicity to fish-fathead minnow; 96h; LC50 Results: 1700 mg/l.  
Sulfuric Acid: Harmful to aquatic life in very low concentrations. May be dangerous if it enters water intake. 96 hr LC50 - bluegill sunfish: 10.5 ppm; 48 hr TLM - flounder: 100-300 ppm.

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**Section 13: DISPOSAL CONSIDERATIONS**

Waste Disposal Method:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

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**Section 14: TRANSPORTATION INFORMATION**

D.O.T. Shipping Name / Class:  
Corrosive liquid, Acidic, Inorganic, N.O.S., 8, UN 3264, II  
(Contains Hydrofluoric Acid)

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**Section 15: REGULATORY INFORMATION**

U.S. Federal Regulations:

TSCA (Toxic Substances Control Act): The intentional ingredients of product are listed.

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Title III Section 311/312 Hazardous Categories - 40 CFR 370.2:

ACUTE (X) Chronic (X) Fire ( ) Pressure ( ) Reactive ( ) Not Applicable ( )

(1) Title III Section 302/304 Extremely Hazardous Substances - 40 CFR 355 Appendix A

(2) Title III Section 313 Toxic Chemicals - 40 CFR 372.65

If indicated under Section 2 of this MSDS, this product contains toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right to Know Act of 1986. This information must be included in all MSDS that are copied and distributed for this material.

RCRA Status: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. If this product becomes a hazardous waste it would be assigned RCRA Code(s)  
D002

State and Local Regulations: Certain states maintain their own ingredient lists which differ slightly from the Federal standards. If indicated under Section 2 of this MSDS, states listed below may have regulations on ingredients contained in this product. Check with your state for any additional regulations.

(3) California proposition 65 (Safe Drinking Water &amp; Toxic Enforcement Act of 1986)

(4) Massachusetts (Hazardous Substance Disclosure by Employers)

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**Section 16: OTHER INFORMATION**

This information was compiled from current manufacturer's MSDS's of the component parts of the product.

Disclaimer: The Manufacturer believes that the information contained in the Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all inclusive nor fully adequate in every circumstance. Also, the suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements.