



8931-C MAISLIN DRIVE, TAMPA, FL 33637

FOR 24 HOUR EMERGENCY IN US, CANADA, PR, USVI:

CALL CHEM*TEL 1-800-255-3924

ALL OTHERS CALL COLLECT: (813) 248-0585

FOR INFORMATION: (813) 988-4910

C.A.S. NO.: Mixture Proprietary

REVISION DATE: December 30, 2003

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

TRADE NAME: Step 1 Tub Prep Cleaner

DOT SHIPPING NAME: Corrosive Liquids, Acidic, Inorganic NOS (Hydrochloric Acid, Phosphoric Acid)

LABEL REQUIRED: Corrosive

DOT/UN ID NO.: UN 3264

DOT CLASS: 8

PACKING GROUP: II

2. COMPOSITION AND INFORMATION ON INGREDIENTS

MATERIAL	C.A.S. NO	OSHA PEL/STEL	ACGIH TLV/TWA	TLV/STEL	TLV
Aqueous Hydrogen Chloride	7647-01-0	N/A	N/A	N/A	5 ppm
Phosphoric Acid	7664-38-2	3 MG/CUM	1 MG/CUM	3 MG/CUM	N/A
Diethylene Glycol Monobutyl Ether	112-34-5	N/A	N/A	N/A	N/A

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Liquid is corrosive (causes burns) to eyes and skin, mist produces irritation to eyes, nose, throat and lungs. Use water to keep fire-exposed containers cool. Oxides of phosphorus, hydrogen chloride and other toxic fumes are formed during thermal decomposition.

POTENTIAL HEALTH EFFECTS: May cause irritation, pain, tears, excess fluid retention (edema), tissue destruction and blindness in case of eye contact. May cause dermatitis, pain, redness, burns and tissue ulceration in case of skin contact. In case of inhalation, may cause irritation, burns, coughing, choking, tissue ulceration, bronchitis, pneumonia, irregular heartbeat, headache, swelling, suffocation especially in confined spaces and even death. Prolonged or repeated overexposure by inhalation may cause erosion of teeth and bronchitis. Ingestion may cause burns, pain, nausea, vomiting, diarrhea, weakness, shock symptoms (rapid pulse, sweating and collapse), tissue perforation and even death. Overexposure may aggravate disorders of the lungs. Routes of entry: eye contact, skin contact, and inhalation.

4. FIRST AID MEASURES

SKIN: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse. Call a physician if irritation persists.

EYE: Immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids apart to ensure flushing of entire surface. Call a physician.

INGESTION: If swallowed, DO NOT induce vomiting. Keep person warm and quiet and obtain immediate medical attention. If conscious, give large quantities of water or milk. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. Keep person warm and quiet. Call a physician immediately.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not Applicable.

FLAMMABLE LIMITS: None Determined.

EXTINGUISHING MEDIA: Use water spray to keep fire-exposed containers cool. Extinguish fire using agent suitable for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURE: Prevent human exposure to fire, fumes, smoke and products of combustion. Evacuate non essential personnel. Firefighters should wear full face, self contained breathing apparatus and impervious protective clothing.

UNUSUAL FIRE EXPLOSION HAZARD: Toxic fumes may be released.

AUTO IGNITION TEMPERATURE: None Determined.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of phosphorus and hydrogen chloride.

6. ACCIDENTAL RELEASE MEASURES

Evacuate non essential personnel, eliminate ignition sources and wear protective equipment. Shut off source of leak only if it is safe to do so. Contain the spill. Recover free product. To clean up residue, flush sparingly with water or use an absorbent. Avoid runoff to ground water, surface waters and sewers. It may be necessary to remove contaminated soil. If acidity (low pH) is a problem, neutralize with hydrated lime, soda ash or sodium bicarbonate. If required, notify state and local authorities.

7. HANDLING AND STORAGE

Do not breathe vapors or mist. Do not get in eyes, on skin or clothing. Do not swallow. Wash thoroughly after handling.

ATTENTION: This container is considered hazardous when emptied. Since emptied container contains product residues (vapor or liquid), all labeled hazard precautions must be observed. Keep container closed when not in use. Store in a cool, dry place. Keep out of reach of children.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

RESPIRATORY PROTECTION: If exposure limits are exceeded, or if exposure may occur, use a NIOSHA/MSHA respirator approved for your conditions of exposure. Refer to the most recent NIOSHA publications concerning chemical hazards, or consult your safety equipment supplier. Respiratory protection programs must be in compliance with OSHA requirements in 29 CFR 1910.134. For emergencies, a NIOSHA/MSHA approved positive pressure breathing apparatus should be readily available.

VENTILATION REQUIREMENTS: Adequate ventilation is required to minimize exposure or to maintain exposure levels below OSHA/ACGIH requirements.

EYE PROTECTION: Use chemical goggles or faceshield. Do not wear contact lenses when working with chemicals.

SKIN PROTECTION: Use acid proof gloves and clothing.

ADDITIONAL PROTECTIVE MEASURES: Safety shower, eye wash fountain and washing facilities should be readily available.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 182 to 212° F.

VAPOR PRESSURE (MM Hg): 1.1600 MM Hg @ 60° F.

VAPOR DENSITY (AIR = 1): 1.27000.

SPECIFIC GRAVITY (H₂O = 1): 1.05628.

DENSITY (LB/GAL): 8.8030.

PERCENT VOLATILE BY VOLUME (%): 99.00 to 100.00.

MELTING POINT: N/A.

EVAPORATION RATE (Butyl Acetate = 1): < 1.0000.

SOLUBILITY IN WATER: Complete.

pH: 0.15.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal temperature and pressure.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of phosphorus. Hydrogen chloride.

KEEP AWAY FROM: Metals and metal blends, inorganic bases, organic bases and bleaching agents (oxidizers). Avoid contact with bleaching agents and oxidizers which include chlorine, oxygen, permanganates, perchlorates, percarbonates, peroxides, chromates, hypochlorites, nitric acid and sulfuric acid. Contact with reactive metals (e.g. mild steel and aluminum) may produce flammable/explosive hydrogen-air mixtures. Reacts with strong bases.

11. TOXICOLOGICAL INFORMATION

EYE CONTACT: Corrosive (Rabbit) Ref: J. Amer. Coll. of Toxicol., 1990.

SKIN CONTACT: Non-Corrosive (4 hr) (Rabbit) Ref: J. Amer. Coll. of Toxicol., 1(1):68, 1990.

SKIN ABSORPTION: LD50>1260 MG/KG (Rat) Ref: J. Amer. Coll. of Toxicol., 1990.

INHALATION: No Data Available.

INGESTION: LD50 = 3500 MG/KG (Rat).

ACUTE EFFECTS FROM OVEREXPOSURE: Phosphoric acid has low acute oral and moderate dermal toxicity. It is corrosive to eyes. Slightly toxic when inhaled.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE: Inorganic phosphates in contact with soil, sub-surface waters may be taken up by plants and utilized as essential nutrients. Phosphates may also form precipitates, usually with calcium or magnesium. The resultant compounds are insoluble in water and become a part of the soil or sediment. The term biodegradability, as such, is not applicable to inorganic materials.

ENVIRONMENTAL EFFECTS: Aquatic toxicity data (for sodium phosphates) 96 HR LC50>100 MG/L, non-toxic (rainbow trout, inland silversides and mysid shrimp) FMC studies I89-1085, -1086 & -1087; 48 HR EC50.100 MG/L, non-toxic (Daphnia Magna) FMC study I89-1088.

13. DISPOSAL CONSIDERATIONS

Solids must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated. Incineration must be handled in a permitted hazardous waste management facility. Dispose of material in accordance with all federal, state and local regulations. Local regulations may be more stringent than federal or state.

14. TRANSPORTATION INFORMATION

DOT SHIPPING NAME: Corrosive Liquids, Acidic, Inorganic, NOS (Hydrochloric Acid, Phosphoric Acid)

DOT HAZARD CLASS: 8

UN/NA NUMBER: UN 3264

PACKING GROUP: II

PRODUCT RQ (lbs): 5000 Lbs.

DOT LABEL: Corrosive Liquids, Acidic, Inorganic, NOS (Hydrochloric Acid, Phosphoric Acid), UN 3264, 8, II.

DOT PLACARD: Corrosive

PRODUCT LABEL: Corrosive

15. REGULATORY INFORMATION

This product is on the TSCA Inventory.

SARA TITLE III Information:

Section 302: No.

Section 313: Yes.

Section 311/312: Yes.

Section 372: Yes

16. OTHER INFORMATION

	HEALTH	FLAMMABILITY	REACTIVITY	SPECIAL HAZARD
NFPA Info	3	0	0	None

(Degree of hazard: 0 = No Hazard, 4 = Severe Hazard)

USERS RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where,

precautions - in addition to those described herein - are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

DISCLAIMER OF LIABILITY: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

< = Less Than

> = More Than

N/A = Not Applicable or Not Available

ND = Not Determined