

MATERIAL SAFETY DATA SHEET

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PRODUCT: Acid Etch

DATE PREPARED: 5/27/10

HAZARDOUS COMPONENTS	
INGREDIENTS Phosphoric Acid	PERCENTAGE 35%
COMMON NAMES AND SYNONYMS Orthophosphoric Acid	CAS NUMBER 7664-38-2
PEL 1 mg/m ³ TWA	UN NUMBER 1805
TLV 1 mg/m ³ TWA	

REACTIVITY DATA	
STABILITY Stable	
CONDITIONS TO AVOID Avoid high temperatures. Incompatible with strong caustics and most metals. DO NOT MIX WITH SOLUTIONS CONTAINING BLEACH OR AMMONIA.	
HAZARDOUS DECOMPOSITION PRODUCTS Toxic gasses, steam, hydrogen (flammable gas), oxides of carbon and phosphorus.	
HAZARDOUS POLYMERIZATION Does not occur.	
CONDITIONS TO AVOID None.	

HAZARD RATING	
N	4 - EXTREME
F	3 - HIGH
P	2 - MODERATE
A	1 - SLIGHT
	0 - INSIGNIFICANT

File	0	Reactivity
Health	3	0
	Special	

PHYSICAL/CHEMICAL CHARACTERISTICS	
BOILING POINT 135°C	pH Approx 1
VISCOSITY N/D	DENSITY 1.2 g/cm ³
VAPOR PRESSURE 0.0285	EVAPORATION RATE (Butyl Acetate = 1) N/D
APPEARANCE/ODOR Blue gel with characteristic odor	SOLUBILITY IN WATER Miscible

FIRE AND EXPLOSION HAZARD DATA	
FLASH POINT N/D	LIMITS LEL N/D UEL N/D
EXTINGUISHING MEDIA Use water spray to keep fire-exposed containers cool. Extinguish fire using agent suitable for surrounding fire.	
SPECIAL FIREFIGHTING PROCEDURES Use full protective clothing and self-contained breathing apparatus. Thermal decomposition emits toxic fumes of oxides of phosphorus.	
UNUSUAL FIRE AND EXPLOSION HAZARDS Phosphoric acid can react with metals to liberate hydrogen, a flammable gas. Combustion by-products include oxides of carbon and phosphorus.	

HEALTH HAZARD DATA	
CARCINOGENICITY Not known.	NTP No
IARC No	OSHA REGULATED No

EMERGENCY & FIRST AID PROCEDURES	
TREATMENT FOR EYE CONTACT Immediately flush with plenty of water for 15 minutes. Get medical attention.	
TREATMENT FOR SKIN CONTACT Immediately flush with plenty of water for 15 minutes while removing contaminated clothing. Get medical attention. Wash clothing before reuse.	
TREATMENT FOR INHALATION (BREATHING) Remove to fresh air. Seek medical attention if symptoms persist.	
TREATMENT FOR INGESTION (SWALLOWING) Dilute with water or milk. Do not induce vomiting. Get medical attention.	

EFFECTS & HAZARDS OF OVEREXPOSURE (ACUTE & CHRONIC)	
EFFECTS & HAZARDS OF EYE CONTACT Corrosive. May cause burns or irritation.	
EFFECTS & HAZARDS OF SKIN CONTACT Slightly toxic if absorbed. Corrosive. May cause burns or irritation. May not produce immediate burning sensation, delaying awareness that contact has occurred.	
EFFECTS & HAZARDS OF INHALATION (BREATHING) None expected under normal conditions of use. If inhaled as a mist or vaporized, it can be irritating to the respiratory tract.	
EFFECTS & HAZARDS OF INGESTION (SWALLOWING) Corrosive. May cause burns or irritation to the mouth, throat, or gastrointestinal tract. Slightly toxic.	
OTHER REGULATORY INFORMATION	

CONTROL MEASURES	
RESPIRATORY PROTECTION Under normal conditions of use of this product, the surgical masks usually worn by dental staff are adequate. If used clinically, a high speed evacuation tip should be used to protect patient. When airborne limits are exceeded, a NIOSH-approved respirator with full face piece is recommended.	
VENTILATION	
LOCAL EXHAUST VENTILATION None for normal conditions of use.	
SPECIAL VENTILATION For large quantity adequate ventilation to keep TLV 1 mg/m ³	
MECHANICAL (GENERAL) VENTILATION Recommended	
OTHER VENTILATION For large quantity adequate ventilation to keep TLV 1 mg/m ³	
PROTECTION GLOVES Chemical resistant gloves	
EYE PROTECTION Chemically resistant splash goggles	
OTHER PROTECTIVE EQUIPMENT Wear long sleeves, apron or coat. Clinically, use rubber dam and hi-speed evacuator. Mask all surrounding tissue. Eye wash fountain recommended.	
WORK & HYGIENIC PRACTICES Clean protective equipment before and after use.	

ADDITIONAL INFORMATION	
This MSDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29CFR 1910.1200) and is to be used only for this product. The information contained in this sheet is, to the best of our knowledge, believed to be accurate.	
HEALTH HAZARD INDEX	RATINGS
SEVERE HAZARD	1
SERIOUS HAZARD	2
MODERATE HAZARD	3
SLIGHT HAZARD	4
MINIMUM HAZARD	5
SHIPPING INFORMATION	
REGULATED IATA Yes	
PROPER SHIPPING NAME Phosphoric Acid Solution	
HAZARD CLASS 8	
IDENTIFICATION NUMBER UN 1805	
PACKAGING GROUP III	
LABEL Corrosive	

To the best of our knowledge, the information contained herein is accurate. However, the Harry J. Bosworth Company does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials 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 that exist.