

MATERIAL SAFETY DATA SHEET

PHOSPHORIC ACID

Components: Phosphoric Acid 40%
Water 60%

Exposure limits - Phosphoric Acid
1 MG/M3 OSHA TWA; 3 MG/M3 OSHA STEL
1 MG/M3 ACGIH TWA; 3 MG/M3 ACGIH STEL

Physical Data:

Description: Odorless, Blue Gel
Boiling Point: 316°F (158°C)
Specific Gravity: 1.685
Vapor Pressure: 2.2 MMHG @ 21°C
PH: 1.5 @ 0.1N SOLN.
Solubility in Water: Complete
Solvent Solubility: Soluble in Alcohol

Fire & Explosion Data:

Fire & Explosion Hazard
Negligible fire hazard when exposed to heat or flame.

Toxicity:

Phosphoric Acid:
595 MG/24 Hrs. Skin-Rabbit severe irritation; 119 MG Eye-Rabbit severe irritation; 220 MG/KG unreported route-man LDLO; 1530 MG/KG Oral-Rat LD50; 2740 MG/KG Skin-Rabbit LD50.

Carcinogen Status: None

Phosphoric Acid is a severe skin, eye and mucous membrane irritant. Persons with chronic respiratory or skin disease may be at an increased risk from exposure.

Health Effects & First Aid:

Inhalation - Phosphoric Acid
Corrosive

Acute Exposure - Inhalation of acidic substances may cause severe respiratory irritation with coughing, choking, and possible burns of the mucous membranes.

Chronic Exposure - Depending on the concentration and duration of exposure. repeated or prolonged exposure to an acidic substance may cause erosion of the teeth, inflammatory and ulcerative changes in the mouth and possibly jaw necrosis. Bronchial irritation with cough and frequent attacks of bronchial pneumonia may occur. Gastro-intestinal disturbances are also possible.

First Aid - Remove from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration. Maintain airway and blood pressure and administer oxygen if available. Get medical attention immediately.

Skin Contact - Phosphoric Acid
Corrosive

Acute Exposure - Direct contact with acidic substances may cause severe pain, burns, and possibly brownish or yellowish stains. Burns may be deep with sharp edges and heal slowly with scar tissue formation.

Chronic Exposure - Effects depend on the concentration and duration of exposure. Repeated or prolonged contact with acidic substances may result in dermatitis or effects similar to acute exposure.

First Aid - Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). In case of chemical burns, cover area with sterile, dry dressing. Bandage securely, but not too tightly. Get medical attention immediately.

Eye Contact - Phosphoric Acid
Corrosive

Acute Exposure - Direct contact with acidic substances may cause pain, lacrimation, photophobia, and burns, possibly severe.

Chronic Exposure - Effects depend on the concentration and duration of exposure. Repeated or prolonged exposure to acidic substances may cause conjunctivitis effects as in acute exposure.

First Aid - Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (at least 15-20 minutes). Continue irrigating with normal saline until the Ph has returned to normal (30-60 minutes). Cover with sterile bandages. Get medical attention immediately.

Ingestion - Phosphoric Acid
Corrosive

Acute Exposure - Acidic substances may cause circumoral burns with discoloration and corrosion of the mucous membranes of the mouth, throat and esophagus. There may be immediate pain and difficulty or inability to swallow or speak. Epiglottal may result in respiratory distress and possibly asphyxia.

Chronic Exposure - Depending on the concentration, repeated ingestion of acidic substances may result in inflammatory and ulcerative changes in the mucous membranes of the mouth and other effects as in acute ingestion.

First Aid - Do not use gastric lavage or emesis. Dilute the acid immediately by drinking large quantities of water or milk. If vomiting persists, administer fluids repeatedly. Ingested acid must be diluted approximately 100 fold to render it harmless to tissues. Maintain airway and treat shock. (Dreisbach, Handbook of Poisoning, 12th ed.) Get medical attention immediately. If vomiting occurs, keep head below hips to help prevent aspiration.

Mfg. By:

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