

MATERIAL SAFETY DATA SHEET

Pickering Laboratories, Inc • 1280 Space Park Way, Mountain View CA 94043 USA • 650 694 6700 • Fax 650 968 0749

PRODUCTS: URIPREP™

Cat. No. UP100

Section I – General

CAS #: [7601-90-3]
FORMULA: HClO₄
CHEMICAL NAME: Perchloric acid, 1% wt/v
SYNONYMS: Dioxonium perchlorate
CHEMICAL FAMILY: Inorganic acid

Section II – Hazardous Ingredients

1: Perchloric acid, 1% wt/v

Section III – Physical Data

MELTING POINT: 0°C (approx)
BOILING POINT: 100°C (approx)
VAPOR PRESSURE: < 17 mm Hg @ 20°C
APPEARANCE: Clear, colorless liquid with a characteristic odor of cough drop.
SOLUBILITY: Aqueous solution

Section IV – Toxicity Data

RTECS #: SC7500000
RTECS NAME: Perchloric acid
TOXICITY: Toxicity data are for concentrated perchloric acid (50–99+%). URIPREP is 1% wt/v perchloric acid. Oral-dog LD₅₀: 400 mg/kg; oral-rat LD₅₀: 1100 mg/kg; subcutaneous-mouse LD₅₀: 250 mg/kg; carcinogen status: none.
REVIEWS: Only selected Registry of Toxic Effects of Chemical Substances (RTECS) data for concentrated perchloric acid (50–99+%) are presented here. Refer to actual entry in RTECS for complete information.

Section V – Health Hazards and First Aid

ACUTE EFFECTS: Inhalation of acidic fumes and mist may cause coughing, choking, headache, dizziness, weakness, hypotension, & delayed pulmonary edema with chest tightness, apnea, frothy sputum, & cyanosis. Dyspnea & hemoptysis are possible after several weeks after exposure.
CHRONIC EFFECTS: Repeated exposures may cause dental erosion & jaw necrosis. Bronchial irritation with cough, comma, & frequent attacks of bronchial pneumonia may occur. Gastrointestinal disturbances are also possible.
EYE CONTACT: Immediately flush with plenty of water for at least 15 minutes; assure adequate flushing by separating eyelids with fingers. Call a physician.

SKIN CONTACT: Immediately wash with copious amounts of water and soap. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Call a physician.

INGESTION: If victim is conscious, give large quantities of water immediately to dilute acid. Do not induce vomiting. Give victim one ounce (30 mL) of milk of magnesia. Call a physician.

Section VI – Fire and Explosion Hazards

FLASHPOINT: Noncombustible

EXTINGUISHING MEDIA: Water spray. For larger fires, flood area with water from a distance.

FIREFIGHTING PROCEDURE: Do not move containers if exposure of heat has occurred. Cool containers with water from side until well after the fire is out. Use water in flooding amounts as a fog. Avoid breathing corrosive vapors, keep upwind. If the fire is not controllable, evacuate to a radius of 1,500 ft.

UNUSUAL HAZARDS: Stable at ordinary pressures up to the boiling point. However, prolonged exposure of the containers to heat may result in their violent rupture.

EXPLOSIVE PROPERTIES: URIPREP solution is non-explosive. Anhydrous form of perchloric acid may decompose spontaneously and explosively to release corrosive fume of hydrogen chloride or chlorine dioxide.

Section VII – Reactivity

GENERAL: Stable at ordinary pressures up to the boiling point.

INCOMPATIBILITIES: Primary and secondary amines can cause non-hazardous contamination of URIPREP.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: URIPREP solution is non-explosive. Anhydrous form of perchloric acid may decompose spontaneously and explosively to release corrosive fume of hydrogen chloride or chlorine dioxide.

Section VIII – Spill or Leak Procedures

SPILL PROCEDURE: Wear safety goggles and gloves. Soak up spill with rags, paper towels, sponge. Rinse away or discard. Wash spill-site with soap and water.

WASTE DISPOSAL: This product may be sent to an EPA-approved waste disposal facility. Observe all federal, state, and local regulations.

Section IX – Precautions for Handling and Storage

SAFETY EQUIPMENT: Chemical safety goggles, laboratory coat, rubber / latex / vinyl gloves, safety-shower with eye-wash.

HANDLING PROCEDURES: Avoid eye and skin contact and inhalation. Do not ingest. Wear safety glasses and gloves. Wash thoroughly after handling.

STORAGE PROCEDURES: Keep tightly closed. Store in cool place.

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