

**MATERIAL SAFETY DATA SHEET  
PRODUCT IDENTIFICATION**

Product Name: “Unicid” E.P.A.C. (Environmental Pump and Carry) (formally Catalyst Plus)

Date: January 1, 2009

Product Use: Mixture with dispersant properties used for the carrying/suspension of biological debris/dissolved solids in pumping systems and to enhance cleaning activity for slime bacteria with acids.

Formula: Acid solution of polyelectrolytes.

DOT Classification: Not regulated as a hazardous material by DOT or IMO.

Manufacturer:

Design Water Technologies

5920 Covington Road

Shorewood, MN 55331

Phone: 952-474-4657

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**COMPONENT INFORMATION**

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**COMPONENTS:** AMT. (%)

Phosphinocarboxylic Acid 7.5 %

(See Regulatory Section)

The balance of the components are not listed or considered hazardous in 29CFR 1910.1200 or other pertinent sections of OSHA Regulations and comprise proprietary information.

**EMERGENCY RESPONSE INFORMATION**

**FIRST AID PROCEDURES:**

This product is an acid and may cause eye burns. Immediately flush eyes with water for at least 15 minutes and get medical attention.

May cause skin irritation or burns. Wash skin surface with mild soap and water .

**FIRE FIGHTING INFORMATION:**

Use self-contained breathing apparatus.

As with any acid, contact with metals may produce flammable hydrogen gas.

Use extinguishing media appropriate for surrounding fire.

**SPILL OR LEAK HANDLING INFORMATION:**

Personal Protection: must be appropriate to handle a spill. See Personal Protection Measures Section.

Neutralize spills with “pH Neutralize”, lime or soda ash; flush spill area with plenty of water .

Procedures: Keep spectators away. Treat as an acid material. Contain spill with inert material (sand, earth, absorbable material). Transfer diking material to suitable container for recovery or disposal. Material may be diluted and rinsed down a sanitary sewer system to a municipal wastewater plant. If quantities in excess of 500 gallons are rinsed to a sewer, the district should be notified of possible pH up set to the plant.

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## HAZARD INFORMATION

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### HEALTH EFFECTS:

The formulation is corrosive to skin and eyes and is not known to be a skin sensitizer. Toxic effects described in animals from exposure by inhalation or ingestion include corrosion of mucosal surfaces, kidney effects, liver effects, and increased oxalate production. Tests of individual constituents in bacterial or mammalian cell cultures gave no mutagenic activity.

Human health effects of overexposure by skin or eye contact may initially include: skin irritation with some discomfort or rash, or eye irritation with discomfort, tearing, or blurring of vision. Higher exposures may lead to these effects: skin burns or ulceration, or eye corrosion with corneal or conjunctival ulceration.

Human health effects of overexposure by inhalation may include irritation or corrosion of mucous membranes with upper and lower respiratory irritation. Human health effects of overexposure by ingestion may include corrosion of mucous membranes with stomach discomfort, nausea, and prostration. Significant skin permeation after contact appears unlikely. There are no reports of human sensitization.

### REACTIVITY INFORMATION:

Stability: Stable [ X ] Unstable [ ]

Incompatibility: metals, oxidizing agents such as nitric acid, cyanide, sulfides.

Hazardous Decomposition Products: carbon monoxide, carbon dioxide, phosphorus oxides.

Hazardous Polymerization will not occur.

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## ACCIDENT PREVENTION INFORMATION

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### PERSONAL PROTECTION MEASURES:

Eye Protection: Wear chemical splash goggles (ANSI Z87.1) or approved equivalent.

Hand Protection: Wear neoprene gloves or approved chemical protective gloves suitable for use with acids.

### FACILITY CONTROL MEASURES:

Ventilation: Keep in well ventilated areas. Keep package tightly closed. Store above 32 degrees F. (0 degrees C)

Storage: Product should not be stored with or near strong caustic or oxidizing agents.

Other Protective Equipment: Eye wash facility should be present where product is stored or utilized.

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## SUPPLEMENTAL INFORMATION

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### PHYSICAL PROPERTIES:

Appearance: Clear pH: 2.4 Color: Yellow

State: Liquid Solubility in Water: Complete

Vapor Pressure: Vapor is water Vapor Density: 1.0 (vapor is water)

Evaporation Rate: N/A Specific Gravity: 1.08

Boiling Point: 243 degrees F Freezing Point: 32 degrees F

### WASTE DISPOSAL:

Comply with Federal, State, and Local regulations. If approved, may be neutralized and flushed to wastewater treatment plant.

**DOT Proper Shipping:**

Not regulated as a hazardous material by the US Dept. of Transportation (DOT)  
49CFR 172.101 Hazardous Material Table.

**RCRA Status:**

Not a hazardous waste under RCRA (40CFR 261). No reportable quantities.

**SARA/TITLE III-CERCLA List:**

This product does not contain a "CERCLA" listed hazardous substance for emergency release notification under Sec. 304 (40CFR 302).

**SARA/TITLE III-Toxic Chemicals List:**

This product does not contain a toxic chemical for routine annual "toxic chemical release reporting" under Sec. 313 (40CFR 372).

**TSCA Inventory Status:**

Chemical components are listed on TSCA inventory.

**California Proposition 65:**

This product does not contain any chemicals currently on the California list of known carcinogens and reproductive toxins.

**SARA/TITLE III-OSHA/HCS Hazardous Chemical:** The following data refers to the constituent reported under Component Information as being considered hazardous under OSHA. HCS 29CFR 1910.1200.

Delayed (Chronic) Health Hazard Primary Routes of Exposure: Dermal Threshold Limit Value: None established Oral LD50 >5 to >10 G/KG 9 (two studies)

Skin Irritation: (Rabbits) Not an irritant Eye Irritation: (Rabbits) Not an irritant

Mutagenicity: Micronucleus Test: Negative-non genotoxic Ames Test:

Negative-non mutagenic in assay.

Subchronic Studies: A 90 day oral gavage study was conducted in the rat using daily doses of 100, 500, and 2500 mg/kg. Preliminary results indicate that at least the highest dose causes increased levels of phosphate and calcium to appear in the urine. This is associated with bone weakness.

Signs & Symptoms of Exposure-Acute: No identified health effects. Chronic: If ingested, this product may cause bone weakness and an increase in urinary phosphate/calcium levels.

Medical Conditions Aggravated by Exposure: None known.

**Emergency & First Aid Procedures:**

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Seek medical attention.

**Skin:** Wash with mild soap and water. Promptly remove and wash contaminated clothing prior to reuse.

**Ingestion:** If conscious, give large quantities of water. Seek medical attention.

**Inhalation:** Remove to fresh air.

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