MATERIAL SAFETY DATA SHEET
PRODUCT IDENTIFICATION

Product Name: **Unicid Catalyst**
Date: January 1, 2009

Product Use: Mixture with dispersant properties used to enhance acid cleaning activity for slime bacteria.

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

COMPONENT INFORMATION

COMPONENTS: **AMT. (%)**
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. Causes eye burns. Immediately flush eyes with water for at least 15 minutes and get medical attention.

Causes 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 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.

HAZARD INFORMATION

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 ef fects, liver effects, and increased oxylate production. Tests of individual constituents in bacterial or mammalian cell cultures gave no mut agenic activity.

Human health effects of overexposure by skin or eye cont act may initially include: skin irrit ation with some discomfort or rash, or eye irrit ation 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 over exposure by inhalation may include irrit ation or corrosion of mucous membranes with upper and lower respirator irrit ation. Human health effects of overexposure by ingestion may include corrosion of mucous membranes with stomach discomfort, nausea, and prostration. Significant skin permeation af ter contact appears unlikely. There are no reports of human sensitization.

REACTIVITY INFORMATION:
Stability: Stable [X] Unst able [ ]
Incompatibility: metals, oxidizing agents such as nitric acid, cyanide, sulfides.
Hazardous Decomposition Products: carbon monoxide, carbon dioxide, phosphorus oxides.
Hazardous Polymerization will not occur.

ACCIDENT PREVENTION INFORMATION

PERSONAL PROTECTION MEASURES:
Eye Protection: Wear chemical splash goggles (ANSI Z871) or approved equivalent.

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

FACILITY CONTROL MEASURES:
Ventilation: Keep in well ventilated areas. Keep p ackage tightly closed. Store above 32 degrees F. (0 degrees C)

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

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

SUPPLEMENTAL INFORMATION

PHYSICAL PROPERTIES:

Appearance: Clear	Color: Yellow
State: Liquid	Solubility in Water: Complete
Vapor Pressure: Vapor is water	Vapor Density: 1.0
Evaporation Rate: N/A	Specific Gravity: 1.08
Boiling Point: 250 degrees F	Freezing Point: 32 degrees F

Proper Use: Concentrations should not exceed greater than 5% of the tot al volume of cleaning solution used. Total volume for wells is calculated at 1.5 times the volume of the well casing. Total volume for pipelines, storage t anks, etc., is the actual volume. At least 20 volumes of the unit being cleaned, should be flushed from the system prior to putting it back into service.

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

REGULATORY INFORMATION

Certified since March 1, 1997 under ANSI/NSF Standard 60, which covers the health effects of water treatment chemicals.

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
Threshold Limit Value: None established
Skin Irritation: (Rabbits) Not an irritant
Mutagenicity: Micronucleus Test: Negative-non genotixic

Primary Routes of Exposure: Dermal
Oral LD50 >5 to >10 G/KG 9 (two studies)
Eye Irritation: (Rabbits) Not an irritant
Ames Test: Negative-non genotoxic 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.

Signs & Symptoms of Exposure-Chronic: 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.

Design Water Technologies supplies this data sheet for your information, consideration, and investigation. The information and recommendations contained have been compiled from sources believed to be reliable. No warranty, guarantee, or representation is made by DWT as to the absolute correctness or efficiency of any representation contained in this and other MSDS nor assumes any responsibility in connection; nor can it be assumed that all acceptable safety measures are contained in this and other MSDS, or that other or additional measures may not be required under particular or exceptional conditions/circumstances. You should satisfy yourself that you have all current data relevant to your particular use.