QUIP SERVICE SELLS QUIP

OUIP LABORATORIES INCORPORATED 1500 EASTLAWN AVENUE WILMINGTON, DE 19802 (302) 761-2600

EMERGENCY NUMBER: 1-800-424-CHEM

MATERIAL SAFETY DATA SHEET

IDENTIFICATION: ACIDULATE 28 ORGANIC ACID CLEANING COMPOUND

PRODUCT CODE:

HAZARD RATING:

4 = EXTREMETOXICITY = 3FIRE = 3 = HIGH2 = MODERATE REACTIVE = 2 SPECIAL = 0 1 = SLIGHT

0 = INSIGNIFICANT

COMPOSITIONAL INFORMATION

...........

% TLV HAZARDOUS INGREDIENTS CITRIC ACID (C.A.S. # 77-92-9) < 30 N/A

HYDROXYACETIC ACID (C.A.S. # 79-14-1)

PHYSICAL DATA

APPEARANCE: CLEAR PINKISH-RED SPECIFIC GRAVITY: 1.22 SOLUBILITY IN WATER: SOLUBLE VOLATILE BY VOLUME: N/A ODOR: MILD CHEMICAL PH: 1.0

EVAPORATION RATE: 1

BOILING POINT: 212 F - 99 C

FIRE & EXPLOSION DATA

FLASH POINT: N/A FLAMMABILITY: N/A

EXTINGUISHING MEDIA: NONE REQUIRED.

SPECIAL FIRE FIGHTING PROCEDURES: NONE
UNUSUAL FIRE OR EXPLOSION HAZARD: EXERCISE CAUTION WHEN FIGHTING FIRES INVOLVING CHEMICAL SUBSTANCES. RESPIRATORY PROTECTION IS REQUIRED.

PAGE 1

HEALTH HAZARD DATA

 ${\tt EFFECTS} \ \, {\tt OF} \ \, {\tt OVEREXPOSURE:} \ \, ({\tt MEDICAL} \ \, {\tt CONDITIONS} \ \, {\tt AGGRAVATED/TARGET} \ \, {\tt ORGAN} \ \, {\tt EFFECTS}):$ A. ACUTE (PRIMARY ROUTE OF EXPOSURE) EYES AND SKIN. PRODUCT MAY BE MILDLY IRRITATING TO EYES AND SKIN.

INHALATION: MISTING MAY PRODUCE SOME RESPIRATORY IRRITATION. INGESTION: PRACTICALLY NONTOXIC IF SWALLOWED.

B. SUBCHRONIC, CHRONIC, OTHER: NONE KNOWN.

EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT: FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR 15 MINUTES. GET IMMEDIATE MEDICAL.

SKIN CONTACT: IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. WASH WITH MILD SOAP AND WATER. IF IRRITATION DEVELOPS, GET MEDICAL ATTENTION.

INHALATION: REMOVE TO FRESH AIR, IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION IF IRRITATION PERSISTS OR SYMPTOMS DEVELOP LATER.

INGESTION: DO NOT INDUCE VOMITING. GIVE GLASS OF WATER OR MILK TO DILUTE. GET IMMEDIATE MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

SPECIAL PROTECTION INFORMATION

PROTECTIVE GLOVES: RUBBER OR PLASTIC.

EYE PROTECTION: CHEMICAL SPLASH GOGGLES OR FACE SHIELD IF NEEDED TO PREVENT CONTACT.

RESPIRATORY PROTECTION: GENERALLY NOT REQUIRED UNLESS HEAVY MISTING OCCURS. LOCAL EXHAUST: MECHANICAL VENTILATION TO MAINTAIN VAPORS AND MISTS. OTHER EQUIPMENT: NONE.

REACTIVITY DATA

INCOMPATIBLE MATERIALS: STRONG OXIDIZERS; WILL CORRODE COPPER, ZINC, ALUMINUM OR THEIR ALLOYS IN HIGH CONCENTRATIONS.

STABILITY: CONDITIONS TO AVOID: NONE KNOWN.

HAZARDOUS POLYMERIZATION: N/A

HAZARDOUS DECOMPOSITION PRODUCTS: UNKNOWN.

SPILL OR LEAK PROCEDURES

SPILL RESPONSE: CONTAIN SPILL. ABSORB INTO SODIUM BICARBONATE. FLUSH RESIDUE TO THE SEWER WITH PLENTY OF WATER.

WASTE DISPOSAL METHODS: DISPOSE OF IN A LANDFILL OR FLUSH TO A SANITARY SEWER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

PAGE 2

SPECIAL INFORMATION

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: MILD ACID SOLUTION. AVOID CONTACT WITH EYES, SKIN OR CLOTHING. WEAR CHEMICAL SPLASH GOGGLES AND RUBBER GLOVES WHEN HANDLING. KEEP CONTAINER CLOSED WHEN NOT IN USE.

ADDITIONAL INFORMATION: READ AND OBSERVE LABEL PRECAUTIONS.

PREPARED BY: T.B. HIDELL

DATE: 8/8/95

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA BELIEVED TO BE CORRECT. NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE.

PAGE 3 (LAST PAGE)