Product ID:LDC-04 ACTIVATOR & ETCH MSDS Date:01/01/2000 FSC:6850 NIIN:01-418-1968 MSDS Number: CCMDS === Responsible Party === Company Name: LIQUID DEVELOPMENT CO INC Address:3748 E 91ST STREET City:CLEVELAND State:OH ZIP:44105-2156 Country:US Info Phone Num:216-641-9366/FAX -6416 Emergency Phone Num:800-424-9300(CHEMTREC) Chemtrec Ind/Phone: (800) 424-9300 CAGE:57868 === Contractor Identification === Company Name: LIQUID DEVELOPMENT CO INC Address:3748 E 91ST STREET Box:City:CLEVELAND State:OH ZIP:44105-2156 Country:US Phone:216-641-9366/800-424-9300(CHEMTREC) Contract Num:SP0411-01-M-E298 CAGE:57868

Ingred Name:WATER CAS:7732-18-5 RTECS #:ZC0110000 Minumum % Wt:60. Maxumum % Wt:70. Other REC Limits:NONE RECOMMEND ED

Ingred Name:SODIUM CHLORIDE CAS:7647-14-5 RTECS #:VZ4725000 Minumum % Wt:10. Maxumum % Wt:20. Other REC Limits:NONE RECOMMENDED Ingred Name: HYDROGEN CHLORIDE (HYDROCHLORIC ACID) (SARA 302/313) (CERCLA) CAS:7647-01-0 RTECS #:MW4025000 Minumum % Wt:20. Maxumum % Wt:30. Other REC Limits:NONE RECOMMENDED OSHA PEL:C 5 PPM ACGIH TLV:C 5 PPM; 9596 EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS LD50 LC50 Mixture:NONE SPECIFIED B Y MANUFACTURER. Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:SKIN:IRRITATION AND INFLAMMATION. CHRONIC EXPOSURE MAY CAUSE BURNS & RASHES, EYES: IRRITATION AND BURNS. LONG TERM: MAY CAUSE LOSS OF SIGHT. INHALATION: BURNING, CHOKING, COUGHING. LONG TERM: CAUSES R ESPIRATORY TRACT DAMAGE & BREATHING DIFFICULTIES. INGESTION: MAY BURN MOUTH, THROAT, STOMACH & ERODE TEETH. Explanation o f Carcinogenicity:PER MSDS:NTP/IARC/OSHA:NO. NO EVIDENCE HAS BEEN FOUND TO SUSPECT THESE CHEMICALS. Effects of Overexposure: IRRITATION AND INFLAMMATION OF SKIN. IRRITATION OF EYES. COUGHING AND BURNING OF LUNGS. Medical Cond Aggravated by Exposure: IMPAIRED PULMONARY FUNCTION. RESPIRATORY, SKIN AND EYE DISORDERS.

First Aid:SKIN & EYES: REMOVE CONTAMINATED CLOTHING, FLUSH WITH LARGE QUANTITIES OF WATER. SEEK MED

ICAL ATTENTION. INHALATION: REMOVE TO FRESH AIR. SEEK MEDICAL ATTENTION. INGESTION: GET IMMEDIATE MEDICAL ATTEN TION. DO NOT INDUCE VOMITING.

Flash Point:NONE Autoignition Temp:Autoignition Temp Text:NP Lower Limits:NA Upper Limits:NA Extinguishing Media:WATER, CO2, DRY CHEMICAL. Fire Fighting Procedures:CHEMICAL RESISTANT CLOTHING AS WELL AS SELF-CONTAINED BREATHING APPARATUS SHOULD BE WORN. Unusual Fire/Explosio n Hazard:CONTACT WITH COMMON METALS MAY PRODUCE FLAMMABLE HYDROGEN GAS.

Spill Release Procedures:FIRST VENTILATE AREA. WEAR PROTECTIVE CLOTHING. SMOTHER WITH EXCESS NEUTRALIZING AGENT. SCOOP INTO CONTAINER FOR PROPER DISPOSAL. DO NOT FLUSH INTO SEWER SYSTEM. Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER. HMIS-20% SODIUM BICARBONATE.

Handl

ing and Storage Precautions:STORE BETWEEN 45-75F, OUT OF DIRECT LIGHT, WITH CONTAINER SEALED TIGHT.

Other Precautions: DO NOT EAT, DRINK, OR SMOKE IN WORK AREA.

======= Exposure Controls/Personal Protection ===============

Respiratory Protection:NIOSH/MSHA APPROVED RESPIRATOR SHOULD BE WORN AS NECESSARY.

Ventilation:LOCAL EXHAUST-SHOULD BE USED TO MAINTAIN CONCENTRATIONS BELOW TLV.

Protective Gloves:RUBBER

Eye Protection: FACESHIELD OR CHEMICAL GOGGLES

Other Protective Equipme

nt:CHEMICAL RESISTANT CLOTHING (APRON, BOOTS, ETC).
Work Hygienic Practices:WASH HANDS THOROUGHLY WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. Supplemental Safety and Health
NO DATA PROVIDED BY MANUFACTURER
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HCC:C1 Boiling Pt:=93.3C, 200.F Spec Gravity:1.11-1.13 pH:0.0-1.0 Viscosity:NP
Solubility in Water:COMPLETE Appearance and Odor:CLEAR LIQUID, SLIGHT HYDROCHLORIC ACID ODOR
===== Stability and Reactivity Data ==================================
Stability Indicator/Materials to Avoid:YES ALKALINE MATERIALS, COMMON METALS. Hazardous Decomposition Products:NONE
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Toxicological Information:NO DATA PROVIDED BY MANUFACTURER
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Ecological:NO DATA PROVIDED BY MANUFACTURER
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Waste D isposal Methods:DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL LAWS.
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Transport Information:NO DATA PROVIDED BY MANUFACTURER
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SARA Title III Information:NO DATA PROVIDED BY MANUFACTURER Federal Regulatory Information:NO DATA PROVIDED BY MANUFACTURER State Regulatory Information:NO DATA PROVIDED BY MANUFACTURER

====== Other Info

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