MATERIAL SAFETY DATA SHEET

SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : MURIATIC ACID ID NUMBER: MURIATIC PRODUCT USE/CLASS: MURIATIC ACID

MANUFACTURER: DIVERSIFIED CHEMICAL PRODUCTS INC. 1208 IRON NORTH KANSAS CITY, MO 64116

EMERGENCY TELEPHONE: 1-800-752-6589 PHONE: 816-472-5515 PREPARE DATE: 04/23/99

CHEMICAL NAME

WT. PERCENT
IS LESS THAN
TLV-TWA
TLV-STEL
PEL-TWA
DESIGNATION

HYDROGEN CHLORIDE 7647-01-0 35.0 % NO INFO NO INFO NO

(See Section XI for abbreviation legend)

SECTION III - PHYSICAL DATA

BOILING RANGE: 150 - 230 F VAPOR DENSITY: Is lighter than air ODOR: CHARACTERISTIC SPECIFIC GRAVITY: 1.1611
APPEARANCE: CLEAR LIQUID EVAPORATION RATE: Is slower than Ether SOLUBILITY IN H2O: COMPLETE

(See Section XI for abbreviation legend)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: NA LOWER EXPLOSIVE LIMIT: NA UPPER EXPLOSIVE LIMIT: NA

EXTINGUISHING MEDIA: CO2 DRY CHEMICAL WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: EXTINGUISH ALL NEARBY SOURCES OF IGNITION SINCE FLAMMABLE HYDROGEN GAS WILL BE LIBERATED FROM CONTACT WITH SOME METALS (ALUMINUM, MAGNESIUM, ETC.).

SPECIAL FIREFIGHTING PROCEDURES: COOL CONTAINERS IN VICINITY TO PREVENT OVERHEATING. FIREFIGHTERS SHOULD WEAR SELF CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE - EYE CONTACT: EXTREMELY CORROSIVE

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: EXTREMELY CORROSIVE.

EFFECTS OF OVEREXPOSURE - INHALATION: FUMES IRRITATING. BREATHING HIGH CONCENTRATIONS MAY BE DANGEROUS.

EFFECTS OF OVEREXPOSURE - INGESTION: EXTREMELY CORROSIVE. LARGE QUANTITIES COULD CAUSE SEVERE PAIN, NAUSEA, DEATH.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: No Information.

FIRST AID - EYE CONTACT: FLUSH WITH WATER 15-30 MINUTES, LIFTING EYELIDS.GET MEDICAL ATTENTION.

FIRST AID - SKIN CONTACT: FLUSH WITH WATER 15 MINUTES. REMOVE CONTAMINATED CLOTHING. LAUNDER BEFORE REUSE. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

FIRST AID - INHALATION: REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION, GET MEDICAL ATTENTION.

FIRST AID - INGESTION: DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER OR MILK. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION. GET MEDICAL ATTENTION.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT INHALATION INGESTION EYE CONTACT

SECTION VI - REACTIVITY DATA

HAZARDOUS DECOMPOSITION PRODUCTS: NONE KNOWN.

CONDITIONS TO AVOID: STRONG ALKALI, OXIDIZING OR REDUCING MATERIALS.

INCOMPATABILITY: ACTIVE METALS. CAUSTIC MATERIALS (EG: LIME, SODA ASH, CAUSTIC SODA).

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

(Continued on Page 2)

Product: LB1040 Preparation Date: 04/23/99 Page 2

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: WEAR APPROPRIATE PROTECTIVE AND RESPIRATORY EQUIPMENT. PREVENT SPILLS FROM ENTERING SEWERS, OR ANY UNAUTHORIZED WATER SYSTEMS. DIKE FOR RECOVERY OR DISPOSAL. WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH APPROPRIATE FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: NIOSH/OSHA APPROVED RESPIRATOR TYPES SUITABLE FOR MATERIALS IN SECTION II RECOMMENDED. APPROVED CHEMICAL/MECHANICAL FILTERS RECOMMENDED WHEN VENTILATION IS RESTRICTED.

VENTILATION: SUFFICIENT VENTILATION, IN VOLUME AND PATTERN, SHOULD BE PROVIDED TO KEEP AIR CONTAMINATION BELOW CURRENT APPLICABLE OSHA PERMISSIBLE EXPOSURE LIMIT OR ACGHI'S TLV LIMIT.

SKIN PROTECTION: HEAVY RUBBER GLOVES NEEDED.

EYE PROTECTION: CHEMICAL GOGGLES WITH SIDE SHIELDS OR FACE SHIELD RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT: No Information.

HYGENIC PRACTICES: WASH AFTER EACH USE.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: STORE IN A COOL DRY AREA.

OTHER PRECAUTIONS: OBEY ALL HAZARD WARNINGS WHEN CONTAINERS ARE EMPTIED.

SECTION X - HMIS RATINGS

HMIS RATINGS HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 0

SECTION XI - OTHER REGULATIONS

SARA SECTION 313: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

PREVIOUS MSDS REVISION DATE: 11/17/97

LEGEND: NA - Not Applicable, NE - Not Established, ND - Not Determined

The information contained on this MSDS is been checked and should be accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

<END OF MSDS>