

EM DIAGNOSTIC SYSTEMS INC -- MURIATIC ACID, 23 DEG. BE (SEE SUPP DATA) --  
6810-00-237-2955

===== Product Identification =====

Product ID:MURIATIC ACID, 23 DEG. BE (SEE SUPP DATA)

MSDS Date:04/27/1993

FSC:6810

NIIN:00-237-2955

MSDS Number: BXDNH

=== Responsible Party ===

Company Name:EM DIAGNOSTIC SYSTEMS INC

Address:480 DEMOCRAT RD

Box:NONE

City:GIBBSTOWN

State:NJ

ZIP:08027

Country:US

Info Phone N

um:609-423-6300 / FAX 609-423-0671

Emergency Phone Num:609-423-6300

CAGE:0GDF9

=== Contractor Identification ===

Company Name:CAROLINA BIOLOGICAL SUPPLY CO

Address:2700 YORK RD

Box:City:BURLINGTON

State:NC

ZIP:27215-3387

Country:US

Phone:800-227-1150/910-584-0381

CAGE:59896

Company Name:EM SCIENCE, A DIVISION OF EM INDUSTRIES

Address:480 DEMOCRAT RD

Box:70

City:GIBBSTOWN

State:NJ

ZIP:08027

Country:US

Phone:856-423-6300

CAGE:0GDF9

===== Composition/Information on Ingredients =====

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Ingred Name:HYDROCHLORIC ACID; (HYDROGEN CHLORIDE APPROX 30% AQUEOUS SOLUTION) (SARA 302/313) (CERCLA)  
CAS:7647-01-0  
RTECS #:MW4025000  
Fraction by Wt: 100%  
OSHA PEL:5 PPM, C  
ACGIH TLV:5 PPM, C  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

===== Hazards Identification =====

LD50 LC50 Mixture:PRODUCT'S LD50 (ORAL RBT) = 900 MG/KG  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:CAUSES SEVERE BURNS. MAY BE FATAL IF INHALED OR SWALLOWED. VAPOR EXTREMELY IRRITATING. MAY CAUSE DAMAGE TO RESPIRATORY PASSAGES & LUNGS.  
Explanation of Carcinogenicity:THIS MATERIAL IS NOT LISTED AS CANCER CAUSING AGENT.  
Effects of Overexposure:EYE:SEVERE BURNS, PERMANENT EYE DAMAGE. SKIN:SEVERE BURNS, POSSIBLE DEEP ULCERATION. INHALATION:DAMAGE TO NASAL & RESPIRATORY PASSAGES, PULMONARY EDEMA. INGESTION:BURNS OF MOUTH, THROAT & G/I TRACT.  
Medical Condition Aggravated by Exposure:RESPIRATORY CONDITIONS.

===== First Aid Measures =====

First Aid:\*\*GET MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE.\*\*  
EYE:FLUSH THOROUGHLY W/WATER FOR 15 MIN. SKIN:FLUSH THOROUGHLY W/LARGE AMOUNTS OF WATER. INHALED:REMOVE FROM EXPOSURE. AID OR RESTORE BREATHING AS NEEDED. INGESTED:DO NOT INDUCE VOMITING. GIVE MILK OR WATER TO DRINK IF CONSCIOUS. GET IMMEDIATE MEDICAL ATTENTION.

===== Fire Fighting

ng Measures =====

Flash Point:NON COMBUSTIBLE

Extinguishing Media:WATER SPRAY.

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS & PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard:CONTACT W/METALS PRODUCES HYDROGEN WHICH MAY FORM EXPLOSIVE MIXTURES W/AIR.

===== Accidental Release Measures =====

Spill Release Procedures:EVACUIATE ALL UNNECESSARY PERSONNEL. WEAR SUITABLE PROTECTIVE EQUIPMENT. ELIMINAGE IGNITION SOURCES. C

ONTAIN

THE RELEASE, ELIMINATE ITS SOURCE, IF W/O RISK. TAKE UP & CONTAINERIZE FOR PROPER DISPOSAL. OBSERVE REGULATIONS IF RQ IS EXCEEDED.

Neutralizing Agent:SPILL-X NEUTRALIZEDRS & ABSORBENT AGENTS.

===== Handling and Storage =====

Handling and Storage Precautions:KEEP CONTAINER TIGHTLY CLOSED. STORE IN A COOL, WELL-VENTILATED AREA SEPARATED FROM INCOMPATIBLE MATERIALS.

Other Precautions:DO NOT BREATHE VAPOR. DO NOT GET IN EYES, ON SKIN O R

ON CLOTHING. HANDLE EMPTY CONTAINERS W/CAUTION. ADD ACID CAUTIOUSLY TO WATER WHEN DILUTING - NEVER ADD WATER TO ACID.

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

Respiratory Protection:USE NISOH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IF WORKPLACE EXPOSURE LIMITS ARE EXCEEDED OR IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGS PERMIT OTHER RESPIRATORS. USSE ENGINEERING OR ADM INISTRATIVE CONTROLS TO REDUCE EXPOSURES

Ventilation:MATERIAL SHOU

LD BE HANDLED OR TRANSFERRED IN AN APPROVED FUME HOOD OR W/ADEQUATE VENTILATION.

Protective Gloves:NEOPRENE OR EQUIVALENT GLOVES.

Eye Protection:SAFETY GLASSES W/SIDE SHIELDS

Other Protective Equipment:EYE WASH & SAFETY EQUIPMENT SHOULD BE READILY AVAILABLE.

Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING. DO NOT TAKE INTERNALLY.

Supplemental Safety and Health

NOTE:MSDS IS FOR "MURIATIC ACID" NOT ACS PURITY HYDROCHLORIC ACID AS PER TIR. HOWEVER ALL SAFETY PRECAUTIONS APPLY

TO BOTH. \*\* PORTIONS  
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===== Physical/Chemical Properties =====

HCC:C1  
NRC/State Lic Num:NONE  
Boiling Pt:B.P. Text:230F,110C  
Melt/Freeze Pt:M.P/F.P Text:-101F,-74C  
Vapor Pres:160 MM  
Vapor Density:1.25  
Spec Gravity:1.1885  
Evaporation Rate & Reference:2 (BUTYL ACETATE=1)  
Solubility in Water:  
MISCIBLE  
Appearance and Odor:CLEAR COLORLESS LIQUID; ACRID ODOR.  
Percent Volatiles by Volume:99.9+  
Corrosion Rate:UNKNOWN

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
BASES, AMINES, ALKALIES, CONTACT W/METALS PRODUCES HYDROGEN  
Stability Condition to Avoid:HEAT, CONTACT W/METALS.  
Hazardous Decomposition Products:TOXIC HYDROGEN CHLORIDE GAS.  
Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Disposal Considerations =====

Waste Disposal Methods:EPA NO. = D002. ALWAYS CONTACT A PERMITTED WASTE DISPOSER TO ASSURE DISPOSAL I/A/W FEDERAL, STATE & LOCAL REGULATIONS. SPECIFIED TECHNOLOGY - NEUTRALIZE TO PH 6-9. CONTACT YOUR LOCAL PERMITTED WASTE DISPOSAL SITE (TSD) FOR POSSIBLE TREATMENT SITES.

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