

MALLINCKRODT INC. SCIENCE PRODUCTS DIVISION -- HYDROCHLORIC ACID,37 %,37 W 2250 --
6810-00-145-0477

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

Product ID:HYDROCHLORIC ACID,37 %,37 W 2250

MSDS Date:09/10/1986

FSC:6810

NIIN:00-145-0477

MSDS Number: BJRBP

=== Responsible Party ===

Company Name:MALLINCKRODT INC. SCIENCE PRODUCTS DIVISION

Address:PARIS BYPASS

Box:M

City:PARIS

State:KY

ZIP:40361

Country:US

Info

Phone Num:800-354-2050/314-982-5000

Emergency Phone Num:800-354-2050/314-982-5000

CAGE:62910

=== Contractor Identification ===

Company Name:MALLINCKRODT SPECIALTY CHEMICALS CO

Address:222 RED SCHOOL LANE

Box:City:PHILLIPSBURG

State:NJ

ZIP:08865

Country:US

Phone:908-859-2151

CAGE:62910

Company Name:WARDS NATURAL SCIENCE ESTABLISHMENT INC

Address:5100 W HENRIETTA RD

Box:92912

City:ROCHESTER

State:NY

ZIP:14692-9012

Country:US

Phone:(716) 359-2502

CAGE:63759

===== Composition/Information

on Ingredients =====

Ingred Name:HYDROGEN CHLORIDE (HYDROCHLORIC ACID) (SARA 302/313)
(CERCLA)
CAS:7647-01-0
RTECS #:MW4025000
Fraction by Wt: 37%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:C 5 PPM
ACGIH TLV:C 5 PPM; 9495
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

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

LD50 LC50 Mixture:LD50 (ORAL,RAT):900 MG/KG (CONCENTRATED)
Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES
Reports of Carcinogenicity:NTP:NO
IARC:NO OSHA:NO
Health Hazards Acute and Chronic:TARGET ORGANS:EYES, SKIN, TEETH,
RESPIRATORY & GI TRACTS. ACUTE- CORROSIVE. INHALE:MAY CAUSE
INFLAMMATION, CHOCKING, COUGHING, LUNG DAMGE. EYE/SKIN:SEVERE
BURNS. MAY CAUSE PERMANENT EYE DAMAGE. ORAL:I MMEDIATE PAIN & BURNS
OF MOUTH, THROAT,ESOPHAGUS & GI TRACT. MAY BE FATAL. CHRONIC-
EROSION OF TEETH.
Explanation of Carcinogenicity:NONE
Effects of Overexposure:IRRITATION, BURNS, COUGHING, DIFFICULT
BREATHING, CHEST PAIN,
ABDOMINAL PAIN, NAUSEA, VOMITING, DENTAL
EROSION, CHOCKING, SKIN REDNESS OR DISCOLORATION, DEEP ULCERATION,
EYE DAMAGE, DEATH
Medical Cond Aggravated by Exposure:DAMAGED SKIN, EYE DISORDERS,
LUNG/RESPIRATORY SYSTEM DISEASES

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

First Aid:GET MEDICAL CARE IMMEDIATELY IN ALL CASES.
EYES/SKIN:IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES.
KEEP EYELIDS OPEN. TREAT FOR CHEMICAL BURNS IF NECESSARY.
INHALA

TION:REMOVE TO FRESH AIR. PRO VIDE CPR/OXYGEN IF NEEDED.

INGESTION:IFCONSCIOUS, DRINK LARGE AMOUNT OF MILK/WATER. DO NOT INDUCE VOMITING.

===== Fire Fighting Measures =====

Flash Point:NONE

Extinguishing Media:USE WATER SPRAY. USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.

Fire Fighting Procedures:WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:CONTAINER MAY RUPTURE. REACTS WITH MOST METALS FORMING HYDROGEN WHICH CAN EXPLODE.

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

Spill Release Procedures:WEAR PROPER PROTECTIVE EQUIPMENT. VENTILATE AREA. REMOVE IGNITION SOURCES (H2 MAY BE PRESENT). DO NOT RELEASE INTO SOIL, SEWER. NEUTRALIZE WITH SODA ASH/SODIUM BICARBONATE. USE AN ABSORBENT SUCH AS SAND/VERMICULITE ON SLURRY. TRANSFER TO CONTAINER.

Neutralizing Agent:SO
DA ASH, LIME, SODIUM BICARBONATE

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

Handling and Storage Precautions:STORE IN COOL, WELL-VENTILATED, CORROSION-PROOF AREA, AWAY FROM SUNLIGHT, HEAT, COMBUSTIBLES & INCOMPATIBLES. KEEP OUT OF REACH OF CHILDREN.

Other Precautions:DANGER! STRONG ACID. DO NOT GET IN EYES, ON SKIN, ON CLOTHING. AVOID BREATHING VAPORS/MIST. USE UNDER THE HOOD WITH ADEQUATE VENTILATION. PROTECT CONTAINERS AGAINST PHYSICAL DAMAGE.

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

Respiratory Protection:USE NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH) APPROVED SELF-CONTAINED BREATHING APPARATUS OPERATED IN POSITIVE PRESSURE MODE WHEN PERMISSIBLE EXPOSURE LIMITS ARE EXCEEDED.

Ventilation:PROVIDE GENERAL VENTILATION OR LOCAL EXHAUST TO MEET OSHA PERMISSIBLE EXPOSURE LIMITS (OSHA PEL).

Protective Gloves:PVC, NEOPRENE

Eye Protection:CHEMICAL SAFETY GOGGLES AND FACE SHIELD

Other Prot

ective Equipment:USE RUBBER SPLASH APRON AND RUBBER BOOTS.

EYEWASH AND SAFETY SHOWER SHOULD BE LOCATED NEARBY.

Work Hygienic Practices:OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. WASH THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health

NOTE TO PHYSICIAN:WASH AFFECTED SKIN AREAS WITH A 5% SOLUTION OF SODIUM BICARBONATE. IF INGESTED, THE RISK VERSUS THE BENEFIT OF THE PASSAGE OF A NASO-GASTRIC TUBE IS DEBATABLE. ACTIVATED CHARCOAL IS OF NO VALUE

. DO NOT GIVE THE EXPOSED PERSON BICARBONATE TO NEUTRALIZE THE MATERIAL.

===== Physical/Chemical Properties =====

HCC:C1

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:B.P. Text:228F,109C

Melt/Freeze Pt:M.P/F.P Text:-101F,-74C

Vapor Pres:190 @ 77F

Spec Gravity:1.18

Solubility in Water:INFINITE

Appearance and Odor:CLEAR, COLORLESS FUMING LIQUID; PUNGENT ODOR

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

Stability Indicator/Materials to Avoid:YE

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STRONG BASES, ALCOHOLS, CYANIDES, METALS, METAL OXIDES, HYDROXIDES, AMINES, CARBIDES, CARBONATES, FORMALDEHYDE, SULFIDES

Stability Condition to Avoid:EXCESSIVE HEAT, DIRECT SUNLIGHT, MOISTURE

Hazardous Decomposition Products:EMITS HYDROGEN CHLORIDE VAPORS OR GAS.

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

Waste Disposal Methods:OBSERVE FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATORS FOR PROPER DISPOSAL. CONSIDER RECYCLING. KEEP COMBUSTIBLES AWAY FROM SP

ILLED MATERIAL. REPORTABLE QUANTITY (RQ)

IS 5000 POUNDS. NEUTRALIZED SL URRY MAY BE FLUSHED TO SEWER WITH WATERIF ALLOWED

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