

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

Inf

o 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.
INHAL

ATION: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:S
ODA 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.

===== 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 Pro

Protective 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

E. 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:Y

ES

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 S

PILLED MATERIAL. REPORTABLE QUANTITY (RQ)

IS 5000 POUNDS. NEUTRALIZED SLURRY MAY BE FLUSHED TO SEWER WITH WATER IF ALLOWED

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