

MALLINCKRODT BAKER INC -- TRICHLOROACETIC ACID, 0414 -- 6810-00-834-5162

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

Product ID:TRICHLOROACETIC ACID, 0414

MSDS Date:12/08/1996

FSC:6810

NIIN:00-834-5162

Status Code:A

MSDS Number: CJTTY

=== Responsible Party ===

Company Name:MALLINCKRODT BAKER INC

Address:222 RED SCHOOL LANE

City:PHILLIPSBURG

State:NJ

ZIP:08865

Country:US

Info Phone Num:800-582-2537

Emergen

cy Phone Num:908-859-2151

Resp. Party Other MSDS Num.:T4823

Chemtre Ind/Phone:(800)424-9300

CAGE:70829

=== Contractor Identification ===

Company Name:MALLINCKRODT BAKER, INC.

Address:222 RED SCHOOL LANE

Box:City:PHILLIPSBURG

State:NJ

ZIP:08865

Country:US

Phone:800-582-2537

CAGE:70829

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

Ingred Name:TRICHLOROACETIC ACID (HAZARDOUS)

CAS:76-03-9

RTECS #:AJ7875000

= Wt:100.

Other REC Limits:N/K

OSHA PEL:N/K

OSHA STEL:N/K

ACGIH

TLV:6.7 MG/M3;1 PPM
ACGIH STEL:N/K

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO
Health Hazards Acute and Chronic:ACUTE: INHALATION: INHALATION OF DUST
MAY CAUSE COUGHING, CHOKING, WITH VARIABLE SYMPTOMS OF HEADACHE,
DIZZINESS, AND WEAKNESS. MAY CAUSE LUNG EDEMA. INGESTION:
CORROSIVE. SORE THROAT, SEVERE ABDOMINAL PAIN, VOMITING, AND
TISSUE DAMAGE MAY OCCUR. SKIN: CORROSIVE. REDNESS, PAIN, SKIN BURNS
CAN OCCUR. EYES: CORROSIVE. REDNESS, PAIN, BLURRED VISION CAN
OCCUR. CAN CAUSE BURNS AND PERMANENT EYE DAMAGE. CHRONIC: LONG
EXPOSURES TO ACID FUMES MAY CAUSE EROSION OF THE TEETH FOLLOWED BY
JAW NECROSIS. BRONCHIAL IRRITATION W/CHRONIC COUGH AND FREQUENT
ATTACKS OF BRONCHIAL PNEUMONIA MAY ALSO OCCUR.
Explanation of Carcinogenicity:TRICHLOROACETIC ACID (76-03-9): IARC
CATEGORY 3.
Effects of Overexposure:SEE HEALTH
HAZARDS.
Medical Cond Aggravated by Exposure:PERSONS WITH SKIN DISORDERS, EYE
PROBLEMS, OR RESPIRATORY PROBLEMS MAY BE MORE SUSCEPTIBLE TO THE
EFFECTS OF THIS SUBSTANCE.

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

First Aid:INHAL: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL
RESP. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL MD IMMEDIATELY. INGEST: IF
SWALLOWED, DO NOT INDUCE VOMIT. GIVE LARGE QUANTITIES OF WATER. NEVER
GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY. SKIN:
IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING
CONTAMINATED CLOTHING & SHOES. WASH CLOTHING BEFORE REUSE. EXCESS ACID ON SKIN
CAN BE NEUTRALIZED WITH 2% BICARBONATE OF SODA SOLUTION. CALL MD
IMMEDIATELY. WASH CLOTHING BEFORE REUSE. EYES: IMMEDIATELY FLUSH WITH GENTLE BUT
LARGE STREAM OF WATER FOR AT LEAST 15 MINUTES, LIFTING LOWER & UPPER
EYELIDS OCCASIONALLY. CALL MD IMMEDIATELY. IN ALL CASES, CALL MD IMMEDIATELY.

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

=====

Extinguishing Media:USE ANY MEANS SUITABLE FOR EXTINGUISHING SURROUNDING FIRE.

Fire Fighting Procedures:WEAR NIOSH APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT . WATER SPRAY MAY BE USED TO KEEP FIRE-EXPOSED CONTAINERS COOL. WATER SPRAY MAY ALSO REDUCE FUMES AND IRRITANT GASES.

Unusual Fire/Explosion Hazard:AQUEOUS SOLUTIONS ARE ACIDIC AND CAN REACT WITH MOST COMMON METALS TO RELEASE FLAMMABLE HYDROGEN GAS. NOT CONSIDERED TO BE A FIRE OR AN EXPLOSION HAZARD.

=====

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

Spill Release Procedures:VENT AREA. CLEAN-UP PERS NEED PROT AGAINST INHAL/CONT W/SUBSTANCE. COVER SPILL W/EXCESS SODIUM BICARBONATE. CAREFULLY SWEEP UP MATL & PLACE IN CORR-RESIST CONTR FOR DISP. IF MATL HAS MIXED W/WATER, AF TER NEUTRALIZING MATL W/SODIUM BICARBONATE, ABSORB W/INERT MATL (E.G., VERMICULITE, DRY SAND, EARTH) & PLACE IN CORR-RESIST CONTR. DO NOT USE COMBUST MATLS, SUCH AS SAWDUST. DO NOT FLUSH TO SEWER.

Neutralizing Agent:SODIUM BICARBONATE.

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

Handling and Storage Precautions:KEEP IN TIGHTLY CLOSED CONTAINER, STORED IN COOL, DRY, VENTILATED AREA. PROTECT AGAINST PHYSICAL DAMAGE. ISOLATE FROM INCOMPATIBLE SUBSTANCES. CONTAINERS OF THIS MATL MAY BE HAZARDOUS WHEN EMPTY SINCE THEY RETAIN PRODUCT RESIDUES (DUST, SOLIDS); OBSERVE ALL WARNINGS & PRECAUTIONS LISTED FOR PRODUCT.

Other Precautions:DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. DO NOT BREATHE DUST. KEEP CONTAINER TIGHTLY CLOSED. USE ONLY WITH ADEQUATE VENTILATION.

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

Respiratory Protection:IF EXPOS LIM IS EXCEEDED, A NIOSH APPRVD HALF-FACE RESP W/ORG VAP/ACID GAS CARTRIDGE & DUST/MIST FILTER MAY BE WORN FOR UP TO 10 TIMES EXPOS LIM/MAX USE CONC SPECIFIED BY APPROP REGULATORY AGENCY/RESP SUPPLIER, WHICHEVER IS LOWEST. A NIOSHAPPRVD FULL-FACE PIE

CE RESP W/ORG VAP/ACID GAS CARTRIDGE MAY
BE WORN UP TO 50 TIMES EXPOS LIM/MAX USE CONC (SUP DAT)
Ventilation:A SYSTEM OF LOCAL AND/OR GENERAL EXHAUST IS RECOMMENDED TO
KEEP EMPLOYEE EXPOSURES BELOW THE AIRBORNE EXPOSURE LIMITS.
(TOXICOLOGICAL INFORMATION)
Protective Gloves:IMPERVIOUS PROTECTIVE GLOVES.
Eye Protection:ANSI APPROVED CHEMICAL WORKERS GOGGLES AND FULL LENGTH
FACESHIELD .
Other Protective Equipment:EYEWASH & DELUGE SHOWER MEETING ANSI DESIGN
CRITERIA . WEAR IMPERV
IOUS PROTECTIVE CLOTHING, INCLUDING BOOTS,
LAB COAT, APRON OR COVERALLS, AS APPROPRIATE, TO PREVENT SKIN
CONTACT.
Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING.
Supplemental Safety and Health
WASTE DISP METH: STATE & LOC DISP REGS MAY DIFFER FROM FED DISP REGS.
DISPOSE OF CONTR & UNUSED CONTENTS I/A/W FED, STATE & LOC REQS.
RESP PROT: SPECIFIED BY APPROP REGULATORY AGENCY/RESP SUPPLIER, WH
ICHEVER IS LOWEST. FOR EMERS/INSTANCES WHERE EXPOS LEVELS ARE NOT
KNOWN, U
SE NIOSH APPRVD FULL-FACE PIECE (OTHER INFO)

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

Boiling Pt:=197.8C, 388.F
Melt/Freeze Pt:=57.8C, 136.F
Vapor Pres:1.3 MM HG @ 51C (124F)
Spec Gravity:1.6
pH:1.2
Solubility in Water:VERY SOLUBLE
Appearance and Odor:WHITE HYGROSCOPIC CRYSTALS WITH PUNGENT ODOR.

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

Stability Indicator/Materials to Avoid:YES
STRONG BASES. HEATING WITH ALKALI YIELDS CHLOROFORM AND ALK
ALI
CARBONATE. ACID SOLUTIONS IN WATER CAN REACT WITH METALS TO
LIBERATE HYDROGEN GAS.
Stability Condition to Avoid:STABLE UNDER ORDINARY CONDITIONS OF USE
AND STORAGE. SOLUTIONS ARE ACIDIC. HYGROSCOPIC. AVOID MOISTURE AND
INCOMPATIBLES.
Hazardous Decomposition Products:CARBON MONOXIDE, CARBON DIOXIDE,
CHLOROFORM, HYDROGEN CHLORIDE, PHOSGENE.

===== Toxicological Information =====

Toxicological Information:SKIN RABBIT, STANDARD DRAIZE, 210 UG, MI

LD;

EYE RABBIT, STANDARD DRAIZE, 3500 UG/5S, SEVERE; INVESTIGATED AS A TUMORIGEN, MUTAGEN, AND REPRODUCTIVE EFFECTOR. VENTILATION: LOCAL EXHAUST VENTILATION IS PREFERRED BECAUSE IT CAN CONTROL THE EMISSIONS OF THE CONTAMINANT AT ITS SOURCE, PREVENTING DISPERSION OF IT INTO THE GENERAL WORK AREA. PLEASE REFER TO ACGIH DOCUMENT, INDUSTRIAL VENTILATION, A MANUAL OF RECOMMENDED PRACTICES, MOST RECENT EDITION, FOR DETAILS.

=====
Ecological Information
=====

Ecological:ENVIRONMENTAL FATE: WHEN RELEASED INTO THE SOIL, THIS MATERIAL MAY BIODEGRADE TO A MODERATE EXTENT. WHEN RELEASED INTO THE SOIL, THIS MATERIAL MAY LEACH INTO GROUNDWATER. ENVIRONMENTAL TOXICITY: THIS MATERIAL IS NOT EXPECTED TO BE TOXIC TO AQUATIC LIFE. THE LC50/96-HOUR VALUES FOR FISH ARE OVER 100 MG/L.

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

Waste Disposal Methods:WHATEVER CANNOT BE SAVED FOR RECOVERY/RECYCLING SHOULD BE MANAGED IN APPROP & APPRVD WASTE FACILITY. ALTHOUGH NOT A LISTED RCRA HAZ WASTE, THIS MATL MAY EXHIBIT ONE/MORE CHARACTS OF HAZ WASTE & REQUIRE APPROP ANALYSIS TO DETERMINE SPECIFIC DISP REQ. PROCESSING, USE/CONTAM OF THIS PROD MAY CHANGE WASTE MANAGEMENT OPTIONS. (SUP DAT)

=====
MSDS Transport Information
=====

Transport Information:DOMESTIC (LAND, D.O.T.), INTERNATIONAL (WATER, I.M.O.), INTERNATIONAL (AIR, I.C.A.O.): PROPER SHIPPING NAME:
TRICHLOROACETIC ACID, SOLID; HAZARC CLASS: 8; UN/NA: UN1839;
PACKING GROUP: II; INFORMATION REPORTED FOR PRODUCT/SIZE: 110 LB.

=====
Regulatory Information
=====

SARA Title III Information:TRICHLOROACETIC ACID (76-03-9): SARA 311/312: ACUTE: YES; CHRONIC: YES; FIRE: NO; PRESSURE: NO; REACTIVITY: NO (PURE/SOLID). SARA 302 RQ/TPQ: NO. SARA 313 LIST/CHEMICAL CATEGORY: NO.

Federal Regulatory Information:TRICHLOROACETIC ACID (76-03-9)

): LISTED

IN TSCA, EC, JAPAN, AUSTRALIA, KOREA, CANADA DSL, THE PHILIPPINES.
NOT LISTED IN CANADA NDSL, CERCLA, RCRA 261.33, TSCA 8 (D),
CHEMICAL WEAPONS CONVENTION, TSCA 12 (B), CDTA. AUSTRALIAN HAZCHEM
CODE: 2R. WHMIS: THIS MSDS HAS BEEN PREPARED ACCORDING TO THE
HAZARD CRITERIA OF THE CONTROLLED PRODUCTS REGULATIONS (CPR) AND
THE MSDS CONTAINS ALL OF THE INFORMATION REQUIRED BY THE CPR.

State Regulatory Information:

=====
===== Other Information =====
=====

Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Department
of Defense. The United States of America in no manner whatsoever,
expressly or implied, warrants this information to be accurate and
disclaims all liability for its use. Any person utilizing this
document should seek competent professional advice to verify and
assume responsibility for the suitability of this information to their
particular situation.