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M A T E R I A L S A F E T Y D A T A S H E E T

SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -

CATALOG #: T4885
NAME: TRICHLOROACETIC ACID CRYSTALLINE

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #: 76-03-9
MF: C2HCL3O2
EC NO: 200-927-2

HAZARDOUS INGREDIENTS

CONTAINS DICHLOROACETIC ACID, CHEMICAL ABSTRACTS REGISTRY NUMBER
79-43-6.

SYNONYMS

ACETO-CAUSTIN * ACIDE TRICHLORACETIQUE (FRENCH) * ACIDO
TRICHLOROACETICO (ITALIAN) * AMCHEM GRASS KILLER * KONESTA * KYSELINA
TRICHLOROCTOVA (CZECH) * NA TA * SODIUM TCA SOLUTION *
TRICHLORAZIJNZUUR (DUTCH) * TRICHLOROACETIC ACID (IUPAC) *
TRICHLOROSSIGSAEURE (GERMAN) * TRICHLOROACETIC ACID (ACGIH) *
TRICHLOROETHANOIC ACID * TRICHLOROMETHANECARBOXYLIC ACID *

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -

LABEL PRECAUTIONARY STATEMENTS

TOXIC
MAY CAUSE CANCER.
CAUSES BURNS.
VESICANT.
TARGET ORGAN(S):
CENTRAL NERVOUS SYSTEM
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
WATER AND SEEK MEDICAL ADVICE.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE
PROTECTION.
DO NOT BREATHE DUST.

SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS
AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED
CLOTHING AND SHOES.
ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS
WITH FINGERS.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.
WASH CONTAMINATED CLOTHING BEFORE REUSE.
DISCARD CONTAMINATED SHOES.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

EXTINGUISHING MEDIA

CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
SHUT OFF ALL SOURCES OF IGNITION.
COVER WITH DRY LIME OR SODA ASH, PICK UP, KEEP IN A CLOSED CONTAINER AND HOLD FOR WASTE DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - HANDLING AND STORAGE- - - - -

REFER TO SECTION 8.

ADDITIONAL INFORMATION

A VIOLENT REACTION HAS BEEN REPORTED ON MIXING TRICHLOROACETIC ACID AND COPPER WOOL IN DIMETHYL SULFOXIDE. (CHEM.ENG.NEWS, P.4, JULY 13, 1981)

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
SAFETY SHOWER AND EYE BATH.
USE ONLY IN A CHEMICAL FUME HOOD.
FACESHIELD (8-INCH MINIMUM).
DO NOT BREATHE DUST.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

APPEARANCE AND ODOR

WHITE CRYSTALLINE POWDER

PHYSICAL PROPERTIES

BOILING POINT: 196 C
MELTING POINT: 54 C TO 58 C
FLASHPOINT >230F
>110C
VAPOR PRESSURE: 1MM 51 C
SPECIFIC GRAVITY: 1.620
VAPOR DENSITY: <1

SECTION 10. - - - - - -STABILITY AND REACTIVITY - - - - -

INCOMPATIBILITIES

STRONG OXIDIZING AGENTS
STRONG BASES
PROTECT FROM MOISTURE.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

TOXIC FUMES OF:
CARBON MONOXIDE, CARBON DIOXIDE
HYDROGEN CHLORIDE GAS

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.
MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES AND SKIN.
INHALATION MAY RESULT IN SPASM, INFLAMMATION AND EDEMA OF THE LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA.
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING.
CAUSES BLISTERS ON CONTACT WITH SKIN.
CAN CAUSE CNS DEPRESSION.

CHRONIC EFFECTS

THIS PRODUCT IS OR CONTAINS A COMPONENT THAT HAS BEEN REPORTED TO BE PROBABLY CARCINOGENIC BASED ON ITS IARC, OSHA, ACGIH, NTP OR EPA CLASSIFICATION.
TARGET ORGAN(S):
CENTRAL NERVOUS SYSTEM

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

RTECS #: AJ7875000

ACETIC ACID, TRICHLORO-IRRITATION DATA

SKN-RBT 210 UG MLD

XEURAQ MDDC-1715

EYE-RBT 3500 UG/5S SEV

XEURAQ MDDC-1715

TOXICITY DATA

SCU-MUS LD50:270 MG/KG

NIIRDN 6,879,1982

TARGET ORGAN DATA

PATERNAL EFFECTS (SPERMATOGENESIS)

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - - DATA NOT YET AVAILABLE.

SECTION 13. - - - - - DISPOSAL CONSIDERATIONS - - - - - DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - TRANSPORT INFORMATION - - - - - CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - REGULATORY INFORMATION - - - - - EUROPEAN INFORMATION

EC INDEX NO: 607-004-00-7

TOXIC

R 35

CAUSES SEVERE BURNS.

S 24/25

AVOID CONTACT WITH SKIN AND EYES.

S 26

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

S 45

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-NOT CLASSIFIABLE AS A HUMAN CARCINOGEN DTLVS* TLV/BEI,1997

ACGIH TLV-TWA 6.7 MG/M3 (1 PPM) DTLVS* TLV/BEI,1997

IARC CANCER REVIEW:ANIMAL LIMITED EVIDENCE IMEMDT 63,291,1995

IARC CANCER REVIEW:HUMAN INADEQUATE EVIDENCE IMEMDT 63,291,1995

IARC CANCER REVIEW:GROUP 3 IMEMDT 63,291,1995

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION

FEREAC 54,7740,1989

OEL-AUSTRALIA:TWA 1 PPM (7 MG/M3) JAN 1993

OEL-BELGIUM:TWA 1 PPM (6.7 MG/M3) JAN 1993

OEL-DENMARK:TWA 1 MG/M3 JAN 1993

OEL-FRANCE:TWA 1 PPM (5 MG/M3) JAN 1993

OEL-THE NETHERLANDS:TWA 1 MG/M3 JAN 1993

OEL-RUSSIA:STEL 5 MG/M3;SKIN JAN 1993

OEL-SWITZERLAND:TWA 1 PPM (7 MG/M3) JAN 1993

OEL-UNITED KINGDOM:TWA 1 PPM (5 MG/M3) JAN 1993

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NIOSH REL TO TRICHLOROACETIC ACID-AIR:10H TWA 1 PPM

NIOSH* DHHS #92-100,1992

NOHS 1974: HZD 81560; NIS 8; TNF 1353; NOS 13; TNE 13946

NOES 1983: HZD 81560; NIS 9; TNF 1562; NOS 21; TNE 35124; TFE 16821

EPA GENETOX PROGRAM 1988, INCONCLUSIVE: HISTIDINE REVERSION-AMES TEST

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES

ON EPA IRIS DATABASE

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JUNE 1998

SECTION 16. - - - - - OTHER INFORMATION - - - - -

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