



chemists helping chemists in research & industry

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LIVONIA MI 48152-3932

DATE: 11/02/94
CUST#: 938609
PO#: 78217

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

PAGE 1

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

PRODUCT #: 24753-7 NAME: OXALIC ACID DIHYDRATE, 99%, A.C.S. REAGENT

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

CAS #: 6153-56-6
MF: C₂H₂O₄

SYNONYMS

ACIDE OXALIQUE (FRENCH) * ACIDO OSSALICO (ITALIAN) * AKTISAL *
AQUISAL * ETHANEDIOIC ACID * ETHANEDIONIC ACID * KYSELINA STAVELOVA
(CZECH) * NCI-C55209 * OXAALZUUR (DUTCH) * OXALIC ACID (ACGIH, OSHA) *
OXALSAEURE (GERMAN) *

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

LEVEL PRECAUTIONARY STATEMENTS

CORROSIVE
CAUSES BURNS.
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
TARGET ORGAN(S):
KIDNEYS
NERVES
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
WATER AND SEEK MEDICAL ADVICE.
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE
PROTECTION.

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 IMMEDIATELY.
DISCARD CONTAMINATED CLOTHING AND SHOES.

CONTINUED ON NEXT PAGE

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PAGE 2

PRODUCT #: 247537
MF: C2H2O4

NAME: OXALIC ACID DIHYDRATE, 99%, A.C.S. REAGENT

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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

THIS MATERIAL, LIKE MOST MATERIALS IN POWDER FORM, IS CAPABLE OF CREATING A DUST EXPLOSION.

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

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY RUBBER GLOVES.

SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.
AVOID RAISING DUST.

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

REFER TO SECTION 8.

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

CHEMICAL SAFETY GOGGLES.
SAFETY SHOWER AND EYE BATH.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
NIOSH/MSHA-APPROVED RESPIRATOR.
USE ONLY IN A CHEMICAL FUME HOOD.
DO NOT BREATHE DUST.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
CORROSIVE.
TOXIC.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.

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

APPEARANCE AND ODOR

WHITE CRYSTALS

MELTING POINT: 104 C TO 106 C

VAPOR PRESSURE: <0.01MM 20 C

VAPOR DENSITY: 4.4

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

INCOMPATIBILITIES

BASES

ACID CHLORIDES

ALKALI METALS

CORRODES STEEL

PROTECT FROM MOISTURE.

AVOID CONTACT WITH METALS.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

TOXIC FUMES OF:

CARBON MONOXIDE, CARBON DIOXIDE

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 BE FATAL AS A RESULT OF 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.

TARGET ORGAN(S):

KIDNEYS

NERVES

RTECS NO: R02450000

OXALIC ACID

IRRITATION DATA

SKN-RBT 500 MG/24H MLD

85JCAE -,311,86

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TOXICITY DATA
EYE-RBT 250 UG/24H SEV
EYE-RBT 100 MG/4S RINSE SEV

85JCAE -,311,86
FCTOD7 20,573,82

ORL-RAT LD50:7500 MG/KG
UNR-RAT LD50:1400 MG/KG
IPR-MUS LD50:270 MG/KG

TXAPA9 42,417,77
GISAAA 50(3),57,85
TXCYAC 62,203,90

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 ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

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

REVIEWS, STANDARDS, AND REGULATIONS

ACGIH TLV-TWA 1 MG/M3; STEL 2 MG/M3
EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION
FEREAC 54,7740,89
MSHA STANDARD-AIR:TWA 1 MG/M3
DTLVS* 3,193,71
OSHA PEL:8H TWA 1 MG/M3
FEREAC 54,2923,89
OSHA PEL FINAL:8H TWA 1 MG/M3;STEL 2 MG/M3
FEREAC 54,2923,89
OEL-ARAB REPUBLIC OF EGYPT:TWA 1 MG/M3 JAN93
OEL-AUSTRALIA:TWA 1 MG/M3;STEL 2 MG/M3 JAN93
OEL-BELGIUM:TWA 1 MG/M3;STEL 2 MG/M3 JAN93

85INA8 6,1151,91

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DEL-DENMARK:TWA 1 MG/M3 JAN93
DEL-FINLAND:TWA 1 MG/M3;STEL 3 MG/M3 JAN93
DEL-FRANCE:TWA 1 MG/M3 JAN93
DEL-THE NETHERLANDS:TWA 1 MG/M3 JAN93
DEL-THE PHILIPPINES:TWA 1 MG/M3 JAN93
DEL-SWITZERLAND:TWA 1 MG/M3 JAN93
DEL-UNITED KINGDOM:TWA 1 MG/M3;STEL 2 MG/M3 JAN93
DEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV
DEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV
NIOSH REL TO OXALIC ACID-AIR:10H TWA 1 MG/M3;STEL 2 MG/M3
NIOSH* DHHS #92-100,92
NOHS 1974: HZD 52480; NIS 109; TNF 11395; NOS 66; TNE 180732
NOES 1983: HZD 52480; NIS 73; TNF 6618; NOS 84; TNE 136212; TFE 55616
EPA TSCA CHEMICAL INVENTORY, JUNE 1993
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 1994

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

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