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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 #: 256374
NAME: 2-ETHOXYETHANOL, 99+%, SPECTROPHOTOMETRIC
GRADE

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

CAS #: 110-80-5
MF: C4H10O2
EC NO: 203-804-1

SYNONYMS

ATHYLENGLYKOL-MONOATHYLATHER (GERMAN) * CELLOSOLVE (OSHA) *
CELLOSOLVE SOLVENT * CELOSOLV (CZECH) * DOWANOL 8 * DOWANOL EE *
EKTASOLVE EE * ETHER MONOETHYLIQUE DE L'ETHYLENE-GLYCOL (FRENCH) * 2-
ETHOXYETHANOL (ACGIH:OSHA) * ETHYL CELLOSOLVE * ETHYLENE GLYCOL ETHYL
ETHER * ETHYLENE GLYCOL MONOETHYL ETHER * ETOKSYETYLOWY ALKOHOL
(POLISH) * GLYCOL MONOETHYL ETHER (OSHA) * JEFFERSOL EE * NCI-C54853 *
OXITOL * POLY-SOLV EE * RCRA WASTE NUMBER U227 * RCRA WASTE NUMBER
U359 *

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

LABEL PRECAUTIONARY STATEMENTS

COMBUSTIBLE (USA)
FLAMMABLE (EU)
TOXIC
MAY CAUSE HARM TO THE UNBORN CHILD.
MAY IMPAIR FERTILITY.
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
READILY ABSORBED THROUGH SKIN.
TARGET ORGAN(S):
BLOOD
CENTRAL NERVOUS SYSTEM
LIVER
KIDNEYS
COMBUSTIBLE.
CAUSES IRRITATION.
AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

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

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN IMMEDIATELY.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER
FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND

SHOES. CALL A PHYSICIAN.

IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

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.

COMBUSTIBLE LIQUID.

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

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.

WEAR DISPOSABLE COVERALLS AND DISCARD THEM AFTER USE.

COVER WITH AN ACTIVATED CARBON ADSORBENT, TAKE UP AND PLACE IN CLOSED CONTAINERS. TRANSPORT OUTDOORS.

VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

EVACUATE AREA.

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

REFER TO SECTION 8.

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

USE ONLY IN A CHEMICAL FUME HOOD.

SAFETY SHOWER AND EYE BATH.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

WASH THOROUGHLY AFTER HANDLING.

DO NOT BREATHE VAPOR.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

NIOSH/MSHA-APPROVED RESPIRATOR.

COMPATIBLE CHEMICAL-RESISTANT GLOVES.

CHEMICAL SAFETY GOGGLES.

KEEP TIGHTLY CLOSED.

STORE IN A COOL DRY PLACE.

KEEP AWAY FROM HEAT AND OPEN FLAME.

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

PHYSICAL PROPERTIES

BOILING POINT: 135 C

MELTING POINT: -90 C

FLASHPOINT 112 F

EXPLOSION LIMITS IN AIR:

UPPER	14%
LOWER	1.8%

AUTOIGNITION TEMPERATURE: 460 F

VAPOR PRESSURE: 3.8MM 20 C

SPECIFIC GRAVITY: 0.930

VAPOR DENSITY: 3.1

SWISS POISON CLASS: 2

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

STABILITY

STABLE.

INCOMPATIBILITIES

OXIDIZING AGENTS

COPPER

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

CARBON MONOXIDE, CARBON DIOXIDE
HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.

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

ACUTE EFFECTS

IN LABORATORY STUDIES WITH THIS MATERIAL, BIRTH DEFECTS, FETOTOXICITY, EMBRYOLETHALITY, ANEMIA, BONE MARROW DAMAGE, HEMOLYSIS, IMMUNO-SUPPRESSION AND DAMAGE TO THE MALE REPRODUCTIVE TISSUES HAVE BEEN OBSERVED.

CAUSES SKIN IRRITATION.

HARMFUL IF ABSORBED THROUGH SKIN.

READILY ABSORBED THROUGH SKIN.

CAUSES EYE IRRITATION.

MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

HARMFUL IF INHALED.

HARMFUL IF SWALLOWED.

CHRONIC EFFECTS

MAY CAUSE REPRODUCTIVE DISORDERS.

MAY CAUSE CONGENITAL MALFORMATION IN THE FETUS.

TARGET ORGAN(S):

BLOOD

CENTRAL NERVOUS SYSTEM

LIVER

KIDNEYS

RTECS #: KK8050000

ETHANOL, 2-ETHOXY-

IRRITATION DATA

EYE-HMN 6000 PPM	PHRPA6 45,1459,1930
SKN-RBT 500 MG OPEN MLD	UCDS** 5/20/1966
EYE-RBT 50 MG MOD	UCDS** 5/20/1966
EYE-RBT 500 MG/24H MLD	85JCAE -,624,1986
EYE-GPG 10 UG MLD	JPPMAB 11,150,1959

TOXICITY DATA

ORL-RAT LD50:2125 MG/KG	GTPZAB 32(3),48,1988
IHL-RAT LC50:2000 PPM/7H	NPIRI* 1,54,1974
SKN-RAT LD50:3900 MG/KG	TOXID9 4,180,1984
IPR-RAT LD50:2800 MG/KG	ARZNAD 21,880,1971
SCU-RAT LD50:3400 MG/KG	ARZNAD 21,880,1971
IVN-RAT LD50:2400 MG/KG	NPIRI* 1,54,1974
UNR-RAT LD50:7750 MG/KG	GISAAA 47(5),84,1982
ORL-MUS LD50:2451 MG/KG	KODAK*
MSDS-10,170A,1982	
IHL-MUS LC50:1820 PPM/7H	JIHTAB 25,157,1943
IPR-MUS LD50:1707 MG/KG	FEPRA7 6,342,1947
IVN-MUS LD50:3900 MG/KG	ARZNAD 21,880,1971
UNR-MUS LD50:5799 MG/KG	GISAAA 47(5),84,1982
ORL-RBT LD50:1275 MG/KG	GISAAA 53(10),78,1988
SKN-RBT LD50:3300 MG/KG	NPIRI* 1,54,1974
SCU-RBT LD50:2 GM/KG	ARZNAD 21,880,1971
IVN-RBT LD50:900 MG/KG	ARZNAD 21,880,1971
ORL-GPG LD50:1400 MG/KG	JIHTAB 23,259,1941
UNR-GPG LD50:3070 MG/KG	GISAAA 47(5),84,1982

TARGET ORGAN DATA

BEHAVIORAL (GENERAL ANESTHETIC)

BEHAVIORAL (ALTERED SLEEP TIME)

BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)

BEHAVIORAL (ANALGESIA)
LUNGS, THORAX OR RESPIRATION (CHRONIC PULMONARY EDEMA OR CONGESTION)
LUNGS, THORAX OR RESPIRATION (DYSPPNAE)
GASTROINTESTINAL (OTHER CHANGES)
KIDNEY, URETER, BLADDER (CHANGES IN TUBULES)
KIDNEY, URETER, BLADDER (HEMATURIA)
KIDNEY, URETER, BLADDER (OTHER CHANGES)
BLOOD (CHANGES IN SPLEEN)
PATERNAL EFFECTS (TESTES, EPIDIDYMIS, SPERM DUCT)
MATERNAL EFFECTS (UTERUS, CERVIX, VAGINA)
MATERNAL EFFECTS (PARTURITION)
MATERNAL EFFECTS (OTHER EFFECTS ON FEMALE)
EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)
EFFECTS ON FERTILITY (LITTER SIZE)
EFFECTS ON FERTILITY (OTHER MEASURES OF FERTILITY)
EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY)
EFFECTS ON EMBRYO OR FETUS (FETAL DEATH)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (BODY WALL)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (CARDIOVASCULAR SYSTEM)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (UROGENITAL SYSTEM)
EFFECTS ON NEWBORN (BEHAVIORAL)
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 - - - - -
CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF
THIS MATERIAL.
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 - - - - -

EUROPEAN INFORMATION

EC INDEX NO: 603-012-00-X

FLAMMABLE

TOXIC

R 60

MAY IMPAIR FERTILITY.

R 61

MAY CAUSE HARM TO THE UNBORN CHILD.

R 10

FLAMMABLE.

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-TWA 5 PPM (SKIN) DTLVS* TLV/BEI,1999

MSHA STANDARD-AIR:TWA 100 PPM (370 MG/M3) (SKIN)

DTLWS* 3,18,1973

OSHA PEL (GEN INDU):8H TWA 200 PPM (740 MG/M3) (SKIN)

CFRGBR 29,1910.1000,1994

OSHA PEL (CONSTRUC):8H TWA 200 PPM (740 MG/M3) (SKIN)

CFRGBR 29,1926.55,1994
OSHA PEL (SHIPYARD):8H TWA 200 PPM (740 MG/M3) (SKIN)
CFRGBR 29,1915.1000,1993
OSHA PEL (FED CONT):8H TWA 200 PPM (740 MG/M3) (SKIN)
CFRGBR 41,50-204.50,1994
OEL-AUSTRALIA: TWA 5 PPM (19 MG/M3), SKIN, JAN1993
OEL-AUSTRIA: MAK 20 PPM (75 MG/M3), SKIN, JAN1999
OEL-BELGIUM: TWA 5 PPM (18 MG/M3), SKIN, JAN1993
OEL-DENMARK: TWA 5 PPM (18.5 MG/M3), SKIN, JAN1999