



chemists helping chemists in research & industry

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chem

ATTN: SAFETY DIRECTOR
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STEVE ANDERSON

DATE: 01/17/91
CUST#: 523216
PO#: QC10266

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

IDENTIFICATION

PRODUCT #: 11000-0
CAS #: 109-89-7
MF: C4H11N

NAME: DIETHYLAMINE, 98%

SYNONYMS

DEN * DIAETHYLAMIN (GERMAN) * DIETHAMINE * N,N-DIETHYLAMINE *
DIETHYLAMINE (ACGIH, DOT, OSHA) * DIETILAMINA (ITALIAN) * DWUETYLAMINA
(POLISH) * ETHANAMINE, N-ETHYL- * UN 1154 (DOT) *

TOXICITY HAZARDS

RTECS NO: HZ8750000

DIETHYLAMINE

IRRITATION DATA

SKN-RBT 10 MG/24H OPEN MLD
SKN-RBT 500 MG OPEN MLD
SKN-RBT 100 MG/24H MOD
EYE-RBT 50 UG OPEN SEV

AMIHBC 4,119,51
UCDS** 5/21/71
85JCAE -,432,86
AMIHBC 4,119,51

TOXICITY DATA

DRL-RAT LD50: 540 MG/KG
IHL-RAT LC50: 4000 PPM/4H
ORL-MUS LD50: 500 MG/KG
SKN-RBT LD50: 820 MG/KG
IHL-MAM LC50: 5000 MG/M3

AEHLAU 1,343,60
AEHLAU 1,343,60
BBIADT 44,795,85
AMIHBC 4,119,51
TPKVAL 14,80,75

REVIEWS, STANDARDS, AND REGULATIONS

ACGIH TLV-TWA 10 PPM; STEL 25 PPM 85INAB 5,197,86
MSHA STANDARD-AIR:TWA 25 PPM (75 MG/M3) DTLVS* 3,84,71
OSHA PEL: 8H TWA 25 PPM (75 MG/M3) FEREAC 54,2923,89
OSHA PEL FINAL: 8H TWA 10 PPM (30 MG/M3); STEL 25 PPM (75 MG/M3) FEREAC
54,2923,89
NOHS 1974: HZD 24680; NIS 20; TNF 2138; NOS 28; TNE 34647
NOES 1983: HZD 24680; NIS 20; TNF 1334; NOS 24; TNE 27580; TFE 6758
EPA TSCA CHEMICAL INVENTORY, JUNE 1990
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, SEPTEMBER 1990
OSHA ANALYTICAL METHOD #41

TARGET ORGAN DATA

SENSE ORGANS AND SPECIAL SENSES (LACRIMATION)
BEHAVIORAL (SLEEP)
BEHAVIORAL (SOMNOLENCE)
BEHAVIORAL (MUSCLE CONTRACTION OR SPASTICITY)
LUNGS, THORAX OR RESPIRATION (CYANOSIS)

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

HEALTH HAZARD DATA

ACUTE EFFECTS

HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.

CONTINUED ON NEXT PAGE

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PO#: QC10266

PRODUCT #: 11000-0
CAS #: 109-89-7
MF: C4H11N

NAME: DIETHYLAMINE, 98%

----- HEALTH HAZARD DATA -----

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. MAY CAUSE ALLERGIC REACTION.

FIRST AID

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.

----- PHYSICAL DATA -----

BOILING PT: 55 C
MELTING PT: -50 C
SPECIFIC GRAVITY: 0.707
VAPOR DENSITY: 2.5
VAPOR PRESSURE: 189 MM @ 20 C
400 MM @ 38 C

APPEARANCE AND ODOR
COLORLESS LIQUID

----- FIRE AND EXPLOSION HAZARD DATA -----

FLASHPOINT: -20 F
AUTOIGNITION TEMPERATURE: 594 F
LOWER EXPLOSION LEVEL: 1.8%
UPPER EXPLOSION LEVEL: 10.1%

CONTINUED ON NEXT PAGE



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CUST#: 523216
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PRODUCT #: 11000-0
CAS #: 109-89-7
MF: C4H11N

NAME: DIETHYLAMINE, 98%

FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA
CARBON DIOXIDE, DRY CHEMICAL POWDER, ALCOHOL OR POLYMER 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.
EXTREMELY FLAMMABLE.
VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND
FLASH BACK.

REACTIVITY DATA

INCOMPATIBILITIES
ACIDS
OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
THERMAL DECOMPOSITION MAY PRODUCE CARBON MONOXIDE, CARBON DIOXIDE,
AND NITROGEN OXIDES.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
EVACUATE AREA.
SHUT OFF ALL SOURCES OF IGNITION.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR
DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.
WASTE DISPOSAL METHOD
BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND
SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY
FLAMMABLE.
OBSERVE ALL FEDERAL, STATE, AND LOCAL LAWS.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
USE ONLY IN A CHEMICAL FUME HOOD.

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NAME: DIETHYLAMINE, 98%

--- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE ---

SAFETY SHOWER AND EYE BATH.
FACESHIELD (8-INCH MINIMUM).
DO NOT BREATHE VAPOR.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
READILY ABSORBED THROUGH SKIN.
WASH THOROUGHLY AFTER HANDLING.
CORROSIVE.
TOXIC.
SENSITIZER.
LACHRYMATOR.
KEEP TIGHTLY CLOSED.
KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.
STORE IN A COOL DRY PLACE.

REGULATORY INFORMATION

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

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