MATERIAL SAFETY DATA SHEET

PRODUCT #: N1095-0 NAME: NITROBENZENE, 99%
CAS #: 98-95-3 MF: C6H5NO2

SYNONYMS
ESSENCE OF MYRBBANE * ESSENCE OF MYRBBANE * MYRBBANE OIL * NCI-C60082 *
NITROBENZENE (DUTCH) * NITROBENZENE (POLISH) * NITROBENZENE *
NITROBENZENE (ACGIH,OSHA) * NITROBENZENE, LIQUID (DOT) * NITROBENZOL *
NITROBENZOL (DOT) * NITROBENZOL, LIQUID (DOT) * OIL OF MYRBBANE * OIL *
OF MYRBBANE (DOT) * OIL OF MYRBBANE * RCRA WASTE NUMBER U169 * UN 1662 *
(DOT) *

TOXICITY HAZARDS

RTECS #: OA64750800
BENZENE, NITRO-
IRRITATION DATA
SKN-RBT 500 MG/24H MLD 85JCAE -9,411,886
EYE-RBT 500 MG/24H MLD 85JCAE -9,411,886

TOXICITY DATA
UNR-MAN LD50: 35 MG/KG 850CAI 2.73,70
SKN-RAT LD50: 2100 MG/KG 61SAA2 24(9),15,59
IPR-RAT LD50: 2640 MG/KG 17G1H6 21,17,59
ORL-MUS LD50: 1590 MG/KG GTPZAB 25(8),50,81

REVIEWS, STANDARDS, AND REGULATIONS
ACGIH TLV-TWA 1 PPM (SKIN), 85INA 5,431,86
MSHA STANDARD ATR: TWA 1 PPM (5 MG/M3) (SKIN) DTLV* 3,183,71
OSHAPEL: 8H TWA 1 PPM (5 MG/M3) (SKIN) PERAC 54,292,89
OSHAPEL: FINAL 8H TWA 1 PPM (5 MG/M3) (SKIN) PERAC 54,292,89
EEPA TSCA (CHEMICAL INVENTORY) 1986
EEPA TSCA 8(A) PRELIMINARY ASSESSMENT INFORMATION, FINAL RULE PERAC 47,26992,82
EEPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 1989
OSHA ANALYTICAL METHODS: SEE NITROBENZENE, 2005
MEETS CRITERIA FOR PROPOSED OSHA MEDICAL RECORDS RULE PERAC 47,30420,82

TARGET ORGAN DATA
BEHAVIORAL (GENERAL ANESTHETIC)
VASCULAR (OTHER CHANGES)
LUNGS, THORAX OR RESPIRATION (RESPIRATORY STIMULATION)
PATERNAL EFFECTS (SPERMATOGENESIS)
PATERNAL EFFECTS (TESTES, EPIDIDYMS, SPERM DUCT)
PATERNAL EFFECTS (PROSTATE, SEMINAL VESICLE, CONNER'S, ACCESSORY GLANDS)

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
MAY BE FATAL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN.
VAPOR OR MIST IS IRITATING TO THE EYES, MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

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3903
MATERIAL SAFETY DATA SHEET

CATALOG #: N1095-0  NAME: NITROBENZENE, 99%

CAUSES SKIN IRRITATION.
ABSORPTION INTO THE BODY LEADS TO THE FORMATION OF METHEMOGLOBIN
WHICH IN SUFFICIENT CONCENTRATION CAUSES CYANOSIS. ONSET MAY BE
DELAYED 2 TO 4 HOURS OR LONGER.
MAY CAUSE NERVOUS SYSTEM DISTURBANCES.
EXPOSURE TO AND/OR CONSUMPTION OF ALCOHOL
MAY INCREASE TOXIC EFFECTS.
EXPOSURE CAN CAUSE:
NAUSEA, HEADACHE AND VOMITING
CHRONIC EFFECTS:
DAMAGE TO THE LIVER

FIRST AID:
IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH ABUNDANT
AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED
CLOTHING AND SHOES.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IN CASE OF EXPOSURE, OBTAIN MEDICAL ATTENTION IMMEDIATELY.
WASH CONTAMINATED CLOTHING BEFORE REUSE.

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

MELTING POINT: 5 C TO 6 C
BOILING POINT: 210 C TO 211 C
SPECIFIC GRAVITY: 1.204
VAPOR DENSITY: 4.2
VAPOR PRESSURE: 15 MM @ 20 C
      50.0 MM @ 120 C
APPEARANCE: YELLOW LIQUID

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

AUTO IGNITION TEMP.: 899 F
LOWER EXPLOSION LEVEL: 1.8%
UPPER EXPLOSION LEVEL: 40%
FLASH POINT: 190 F

EXTINGUISHING MEDIA:
WATER SPRAY.
CARBON DIOXIDE, DRY CHEMICAL POWDER, ALCOHOL OR POLYMER FOAM.

SPECIAL FIRE FIGHTING PROCEDURES:
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
PREVENT CONTACT WITH SKIN AND EYES.
COMBUSTIBLE LIQUID.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.
FORMS EXPLOSIVE MIXTURES IN AIR.

------------------------- REACTIVITY DATA -------------------------

INCOMPATIBILITIES:
STRONG OXIDIZING AGENTS
STRONG REReducING AGENTS
STRONG ACIDS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:
TOXIC FUMES OF:
CARBON MONOXIDE, CARBON DIOXIDE
NITROGEN OXIDES
CATALOG # N1093-0  NAME:  NITROBENZENE, 99%

--------- SPILL OR LEAK PROCEDURES ---------

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

EVACUATE AREA.
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
THIS COMBUSTIBLE MATERIAL MAY BE BURNED IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.

OBSERVE ALL FEDERAL, STATE & LOCAL LAWS.

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

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.
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.
HIGHLY TOXIC.
IRRITANT.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.

--------- ADDITIONAL PRECAUTIONS AND COMMENTS ---------

ADDITIONAL INFORMATION
NITROBENZENE FORMS EXPLOSIVE MIXTURES WITH ALUMINUM CHLORIDE, ANILINE AND GLYCERINE MIXTURES, NITRIC ACID, NITROGEN TETROXIDE, AND SILVER PERCHLORATE. A SOLUTION OF PHOSPHORUS PENTACHLORIDE IN NITROBENZENE IS STABLE AT 110 °C BUT BEGINS TO DECOMPOSE WITH ACCELERATING VIOLENCE ABOVE 120 °C WITH EVOLUTION OF NITROUS FUMES.

--------- REGULATORY INFORMATION ---------

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. ALDRICH SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.