MATERIAL SAFETY DATA SHEET

PRODUCT #: 11008-6  NAME: ACETONITRILE, 99%  
CAS #: 75-05-8  
MF: C3H3N

SYNONYMS:
ACETONITRILE (GERMAN, DUTCH) * ACETONITRILE (ACGIH, DOT, OSHA) * CYANOMETHANE * CYANURE DE METHYL (FRENCH) * ETHANENITRILE * ETHYL NITRILE * METHANECARBONITRILE * METHANE, CYANO- * METHYL CYANIDE * METHYL CYANIDE (DOT) * METHYLKYANID (CZECH) * NA 1648 (DOT) * NCI- C50822 * RCRA WASTE NUMBER UD03 * UN 1648 (DOT) * USAF EK-488 *

IDENTIFICATION

TOXICITY HAZARDS

RTECS #: AL7700000
ACETONITRILE

IRRITATION DATA
SKN-RAT 10 MG/24H OPEN SKN-RAT 500 MG OPEN MLD EYE-RAT 20 MG OPEN SEV

TOXICITY DATA


REVIEWS, STANDARDS, AND REGULATIONS

ACGIH TLV-TWA: 40 PPM STEL 60 PPM 85INA: 5, 8, 86 MSHA STANDARD-AIR: TWA: 40 PPM (70 MG/M3) DTLY** 3, 3, 71 OSHAPEL: 8H TWA: 40 PPM (70 MG/M3) FERERAC: 54, 2923, 89 OSHAPEL: FINAL: 8H TWA: 40 PPM (70 MG/M3) STEL 60 PPM (105 MG/M3) FERERAC: 54, 2923, 89 NIOSH REL TO NITRILES-AIR: 10H TWA: 34 MG/M3 MMWR** 37(S-7), 21, 88 EPA TSCA CHEMICAL INVENTORY: 1986 EPA TSCA 8(A) PRELIMINARY ASSESSMENT INFORMATION, FINAL RULE FERERAC: 47, 26992, 82

EPA TSCA SECTION 8(E) STATUS REPORT B4790-0578-0149
EPA TSCA TEST SUBMISSION (TSCAT): DATA BASE, JANUARY 1989
NIOSH ANALYTICAL METHODS: SEE ACETONITRILE, 1606
NTP CARCINOGENESIS STUDIES ON TEST (TWO YEAR STUDIES), FEBRUARY 1989
NITE CRITERIA FOR PROPOSED OSHA MEDICAL RECORDS RULE FERERAC: 47, 30420, 82

TARGET ORGAN DATA
SENSE ORGANS AND SPECIAL SENSES (CORNEAL DAMAGE)
BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)
MATERIAL SAFETY DATA SHEET

CATALOG #: 11008-6  NAME: ACETONITRILE, 99%

BEHAVIORAL (ATAXIA)
LUNGS, THORAX OR RESPIRATION (DYSPNEA)
LUNGS, THORAX OR RESPIRATION (OTHER CHANGES)
GASTROINTESTINAL (NAUSEA OR VOMITING)
EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)
NUTRITIONAL AND GROSS METABOLIC (CHANGES IN: METABOLIC ACIDOSIS)

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.
VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING,
WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING.

FIRST AID
FLUSH SKIN WITH WATER.
CONTAMINATION OF THE EYES SHOULD BE TREATED BY IMMEDIATE AND PROLONGED IRRIGATION WITH copious AMOUNTS OF WATER.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
CALL A PHYSICIAN.
REMOVE AND WASH CONTAMINATED CLOTHING PROMPTLY.
DISCARD CONTAMINATED SHOES.

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

MELTING POINT: -48 C
BOILING POINT: 81 C TO 82 C
SPECIFIC GRAVITY: 0.786
VAPOR DENSITY: 1.41
VAPOR PRESSURE: 72.8 MM Hg 20 C
APPEARANCE: COLORLESS LIQUID

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

AUTO IGNITION TEMP.: 973 F
LOWER EXPLOSION LEVEL: 4.4%
UPPER EXPLOSION LEVEL: 16%
FLASH POINT: 42 C

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL POWDER, ALCOHOL OR POLYMER FOAM.
WATER MAY BE EFFECTIVE FOR COOLING, BUT MAY NOT EFFECT EXTINGUISHMENT.

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

UNUSUAL FIRE AND EXPLOSION HAZARDS:
EXTREMELY FLAMMABLE.
VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASH BACK.
CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

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MATERIAL SAFETY DATA SHEET

CATALOG #: 11009-6
NAME: ACETONITRILE, 99%

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

INCOMPATIBILITIES
ACIDS
BASES
OXIDIZING AGENTS
REDUCING AGENTS
ALKALI METALS
PROTECT FROM MOISTURE.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
THERMAL DECOMPOSITION MAY PRODUCE CARBON MONOXIDE, CARBON DIOXIDE,
AND NITROGEN OXIDES.
HYDROGEN CYANIDE

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

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
EVADE AREA.
SHUT OFF ALL SOURCES OF IGNITION.
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.

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 & 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.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
LACHRYMATORY.
IRRITANT.
TOXIC.
KEEP TIGHTLY CLOSED.
KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.
HYGROSCOPIC.
HANDLE AND STORE UNDER NITROGEN.
STORE IN A COOL DRY PLACE.

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

NOT APPLICABLE

------------- 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 FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.