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 #: N0267
NAME: (+/-)-NICOTINE

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - - -
CAS #: 22083-74-5
MF: C10H14N2
SYNONYMS
(+/-)-3-(1-METHYL-2-PYRROLIDINYL)PYRIDINE * (+/-)-NICOTINE * DL-BETA-
NICOTINE * DL-NICOTINE * (R,S)-NICOTINE * PYRIDINE, 3-(1-METHYL-2-) Tj
ET
BT
/Pj
72
500
Td
/DeviceGray
cs
0
sc
(    PYRROLIDINYL)- (9CI) * PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-, (+-)-(9CI) *

SECTION 3. - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - - -
LABEL PRECAUTIONARY STATEMENTS
HIGHLY TOXIC (USA)
VERY TOXIC (EU)
VERY TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
LIMITED EVIDENCE OF CARCINOGENIC EFFECT.
READILY ABSORBED THROUGH SKIN.
POSSIBLE MUTAGEN.
TARGET ORGAN(S):
NERVES
SKELETAL MUSCLE
DO NOT BREATHE VAPOR.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE
PROTECTION.
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

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.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

SECTION 5. - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -
EXTINGUISHING MEDIA
CARBON DIOXIDE.
DRY CHEMICAL POWDER.
WATER SPRAY.
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.

SECTION 6. - - - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - - -
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
EVACUATE AREA.
ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR
DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - - - - - - HANDLING AND STORAGE- - - - - - - - - - - - - - 
REFER TO SECTION 8.

SECTION 8. - - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - - - 
REMOVE AND WASH CONTAMINATED CLOTHING PROMPTLY.
WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT 
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
USE ONLY IN A CHEMICAL FUME HOOD.
SAFETY SHOWER AND EYE BATH.

SECTION 9. - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - - 
PHYSICAL PROPERTIES
FLASHPOINT               213.80F
                      101C
SPECIFIC GRAVITY:     1.02
SWISS POISON CLASS:      1

SECTION 10. - - - - - - - STABILITY AND REACTIVITY - - - - - - - - 
CONDITIONS TO AVOID
PROTECT FROM MOISTURE.
INCOMPATIBILITIES
PROTECT FROM MOISTURE.
STRONG OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
THERMAL DECOMPOSITION MAY PRODUCE CARBON MONOXIDE, CARBON DIOXIDE,
AND NITROGEN OXIDES.

SECTION 11. - - - - - - TOXICOLOGICAL INFORMATION - - - - - - - - - 
ACUTE EFFECTS
CAUSES SKIN IRRITATION.
MAY BE FATAL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN.
VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES AND UPPER 
RESPIRATORY TRACT.
PROLONGED EXPOSURE CAN CAUSE:
NAUSEA, DIZZINESS AND HEADACHE
STOMACH PAINS, VOMITING, DIARRHEA.
CONVULSIONS
CAUSES CYANOSIS.
CHRONIC EFFECTS
MAY CAUSE CONGENITAL MALFORMATION IN THE FETUS.
TARGET ORGAN(S):
PERIPHERAL NERVOUS SYSTEM
CENTRAL NERVOUS SYSTEM
SKELETAL MUSCLE
G.I. SYSTEM

RTECS #: Q55257500
NICOTINE, (+)-
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 SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - - - REGULATORY INFORMATION - - - - - - - - - - 
EUROPEAN INFORMATION
CAUTION: SUBSTANCE NOT YET FULLY TESTED.
VERY TOXIC
R 25
TOXIC IF SWALLOWED.
R 27
VERY TOXIC IN CONTACT WITH SKIN.
R 51/53
TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS
IN THE AQUATIC ENVIRONMENT.
S 36/37
WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.
S 45
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
S 61
AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/
SAFETY DATA SHEETS.

SECTION 16. OTHER INFORMATION
THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SIGMA, ALDRICH, FLUKA 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.

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