SECTION 1. --- --- --- --- --- --- CHEMICAL IDENTIFICATION --- --- --- --- --- ---

PRODUCT #: N9376
NAME: NITRO BLUE TETRAZOLIUM
CRISTALLINE

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

CAS #: 298-83-7
MF: C46H30Cl2N10O6

CONTAINS METHYL ALCOHOL. CHEMICAL ABSTRACTS REGISTRY NUMBER 67-56-1.
CONTAINS ACETONE. CHEMICAL ABSTRACTS REGISTRY NUMBER 67-64-1.
SYNONYMS:
NBT * NBT (DYE) * NITRO BLUE TETRAZOLIUM * P-NITRO BLUE TETRAZOLIUM *
NITRO BLUE TETRAZOLIUM CHLORIDE * P-NITRO BLUE TETRAZOLIUM CHLORIDE *
NITRO TETRAZOLIUM BT * NITRO TETRAZOLIUM BLUE * P-NITRO TETRAZOLIUM BLUE *
NITRO BLUE TETRAZOLIUM SALT * TETRAZOLIUM NITRO BLUE * TETRAZOLIUM NITRO BT *

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

LABEL PRECAUTIONARY STATEMENTS

TOXIC
POISON
MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. VAPOR HARMFUL.
CANNOT BE MADE NON-POISONOUS.
CAUSES IRRITATION.
TARGET ORGANS:
EYES
KIDNEYS
DO NOT BREATHE DUST.
WEAR SUITABLE PROTECTIVE CLOTHING.

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 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.

CONTINUED ON NEXT PAGE
SECTION 5. -- -- -- -- -- -- FIRE FIGHTING MEASURES -- -- -- -- -- --

EXTINGUISHING MEDIA.
WATER SPRAY.
CARBON DIOXIDE, DRY CHEMICAL PONDER OR APPROPRIATE FOAM.

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

UNUSUAL FIRE AND EXPLOSION HAZARDS.
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

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

EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
Sweep up, Place in a Bag and Hold for Waste Disposal.
AVOID RAISING DUST.
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 -- -- -- -- -- --

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 DUST.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.

POISON IRITANT.
HARMFUL VAPOR.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.

CONTINUED ON NEXT PAGE
SECTION 9. -- -- -- -- -- -- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR

SOLID

MELTING POINT: 189 C (DEC)

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

INCOMPATIBILITIES

STRONG OXIDIZING AGENTS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

TOXIC FUMES OF:

CARBON MONOXIDE, CARBON DIOXIDE

NITROGEN OXIDES

HYDROGEN CHLORIDE GAS

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

ACUTE EFFECTS

MAY BE FATAL IF SWALLOWED.

HARMFUL IF INHALED OR ABSORBED THROUGH SKIN.

MATERIAL IS IRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

CAUSES SKIN IRRITATION.

EXPOSURE CAN CAUSE:

DAMAGE TO THE EYES

DAMAGE TO THE LIVER

DAMAGE TO THE HEART

DAMAGE TO THE KIDNEYS

GASTROINTESTINAL DISTURBANCES

MAY CAUSE CONVULSIONS.

TARGET ORGAN(S):

EYES

KIDNEYS

LIVER

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

ADDITIONAL INFORMATION

WARNING: CONTAINS METHANOL. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. CANNOT BE MADE NONPOISONOUS.

RTECS NO: XF0045000

CONTINUED ON NEXT PAGE
MATERIAL SAFETY DATA SHEET

PRODUCT #: N6376  NAME: NITRO BLUE TETRAZOLIUM GRADE III
MF#: C40H30Cl2N10O6  CRYSTALLINE

2H-TETRAZOLIUM,
3,3"-(3,5"-DIMETHOXY(1,1"-BIPHENYL)-4,4"-DIYL)BIS(2-(4-NITROPHENYL)-5-P
DICHLORIDE

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 - - - - - - - -
TLV AND SOURCE
FOR METHYL ALCOHOL - SKIN:
ACGIH TLV-TWA: 200 PPM (260 MG/M3); STEL: 250 PPM (310 MG/M3).
OSHA PEL: 8 H TWA 200 PPM (260 MG/M3); STEL: 250 PPM (310 MG/M3).
FOR ACETONE:
ACGIH TLV-TWA: 750 PPM (1780 MG/M3); STEL 1000 PPM (2380 MG/M3).
OSHA PEL: 8 H TWA 750 PPM (1780 MG/M3); STEL 1000 PPM (2380 MG/M3).

REVIEWS, STANDARDS, AND REGULATIONS:
NOES, 1993: H2O X4354; NIS 1; TIF: 70; NOS 37 TNE 1560; TFE 1227
EPA GENETOX PROGRAM 1998, INCONCLUSIVE: B. SUBTILIS REC ASSAY
EPA TSCA CHEMICAL INVENTORY, JUNE 1993
MAY CONTAIN UP TO:
10% METHYL ALCOHOL CAS #67-56-1.
2% ACETONE, CAS #67-64-1.
THESE PRODUCTS ARE SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

SECTION 16. - - - - - - - - OTHER INFORMATION - - - - - - - -
CONTINUED ON NEXT PAGE
MATERIAL SAFETY DATA SHEET

PRODUCT #: N6876
MF: C4H30Cl2N10O6
NAME: NITRO BLUE TETRAZOLIUM GRADE III CRYSTALLINE

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