

## BIO BASIC INC.

160 TORBAY ROAD, MARKHAM ONTARIO L3R 1G6 CANADA  
TEL: (905) 474 4493, (800) 313 7224 FAX: (905) 474 5794

### MATERIAL SAFETY DATA SHEET

REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

MANUFACTURER'S NAME: BIO BASIC INC.  
TEL: (905) 474 4493  
FAX: (905) 474 5794  
FOR CHEMICAL EMERGENCY: (416) 995 9730  
ADDRESS: 160 TORBAY ROAD, MARKHAM ONTARIO L3R 1G6 CANADA

DATE PREPARED: AUGUST 16, 2007

#### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CYTIDINE-5'-TRIPHOSPHATE (CTP)  
CATALOG CODE: IB0728  
CAS#: 81012-87-5  
RTECS: NOT AVAILABLE.  
TSCA: TSCA 8(B) INVENTORY : NO PRODUCTS WERE FOUND.  
CI#: NOT AVAILABLE.  
SYNONYM: NOT AVAILABLE.  
CHEMICAL NAME: CYTIDINE-5'-TRIPHOSPHATE, DISODIUM SALT  
CHEMICAL FORMULA: C9H14N3O14P3NA2

#### SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

COMPOSITION:  
NAME CAS# % BY WEIGHT  
CYTIDINE-5'-TRIPHOSPHATE (CTP) 81012-87-5 100  
TOXICOLOGICAL DATA ON INGREDIENTS:  
NOT AVAILABLE.

#### SECTION 3: HAZARDS IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS: THE TOXICOLOGICAL PROPERTIES OF THIS PRODUCT HAVE NOT BEEN DETERMINED.  
POTENTIAL CHRONIC HEALTH EFFECTS:  
CARCINOGENIC EFFECTS: NOT AVAILABLE.  
MUTAGENIC EFFECTS: NOT AVAILABLE.  
TERATOGENIC EFFECTS: NOT AVAILABLE.  
DEVELOPMENTAL TOXICITY: NOT AVAILABLE.

#### SECTION 4: FIRST AID MEASURES

EYE CONTACT: FLUSH CONTAMINATED EYE(S) WITH LARGE VOLUMES OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION IF THE EYE (S) REMAIN IRRITATED.  
SKIN CONTACT: FLUSH CONTAMINATED AREAS WITH LARGE VOLUMES OF WATER FOR AT LEAST 15 MINUTES AS CONTAMINATED CLOTHING IS REMOVED. GET MEDICAL ATTENTION IF AREA REMAINS IRRITATED. DO NOT WEAR CONTAMINATED CLOTHING UNTIL AFTER IT HAS BEEN PROPERLY CLEANED.  
SERIOUS SKIN CONTACT: NOT AVAILABLE.  
INHALATION: REMOVE VICTIM TO FRESH AIR. GIVE OXYGEN IF BREATHING BECOMES DIFFICULT. SHOULD BREATHING STOP, GIVE ARTIFICIAL RESPIRATION.  
SERIOUS INHALATION: NOT AVAILABLE.  
INGESTION: KEEP VICTIM WARM AND CALM. GET IMMEDIATE MEDICAL ATTENTION.

SERIOUS INGESTION: NOT AVAILABLE.

SECTION 5: FIRE AND EXPLOSION DATA

FLAMMABILITY OF THE PRODUCT: COMBUSTIBLE.

AUTO-IGNITION TEMPERATURE: NOT AVAILABLE.

FLASH POINTS: >200 °C

FLAMMABLE LIMITS: NOT AVAILABLE.

PRODUCT OF COMBUSTION: NOT AVAILABLE.

FIRE HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES: NOT AVAILABLE.

EXPLOSION HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES:

NOT AVAILABLE.

FIRE FIGHTING MEDIA AND INSTRUCTIONS:

SMALL FIRE: DRY CHEMICAL POWDER.

LARGE FIRE: NOT AVAILABLE.

SPECIAL REMARKS ON FIRE HAZARDS: NOT AVAILABLE.

SPECIAL REMARKS ON EXPLOSION HAZARDS: NOT AVAILABLE.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SMALL SPILL: VENTILATE THE AREA. INITIATE CLEANING UP THE SPILL USING THE EQUIPMENT AND

MATERIAL AS NOTED IN THE "EXPOSURE

CONTROL INFORMATION" SECTION. IF THE PRODUCT IS DRY, MOP UP. IF THE PRODUCT IS IN SOLUTION,

USE AN ABSORBENT MATERIAL TO CLEAN UP

THE SPILLED SOLUTION. ONCE THE ABSORBENT IS SPENT, PLACE ALL CONTAMINATED DISPOSABLES

INTO A SUITABLE CONTAINER, SEAL, LABEL,

AND HOLD FOR DISPOSAL.

LARGE SPILL: NOT AVAILABLE.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS: NOT AVAILABLE.

STORAGE: STORE AT -15 TO -20°C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED.

PERSONAL PROTECTION: RESPIRATORY : DUST RESPIRATOR.

HAND: CHEMICAL RESISTANT GLOVES.

EYE: SAFETY GLASSES.

PERSONAL PROTECTION IN CASE OF A LARGE SPILL: SPLASH GOGGLES. FULL SUIT. BOOTS. DUST

RESPIRATOR. GLOVES.

EXPOSURE LIMITS: NOT AVAILABLE.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE AND APPEARANCE: SOLID.

ODOR: NOT AVAILABLE.

TASTE: NOT AVAILABLE.

MOLECULAR WEIGHT: 549.10 G/MOLE

COLOR: NOT AVAILABLE.

PH(1% SOLN/WATER): NOT AVAILABLE.

BOILING POINT: NOT AVAILABLE.

MELTING POINT: NOT AVAILABLE.

CRITICAL TEMPERATURE: NOT AVAILABLE.

SPECIFIC GRAVITY: NOT AVAILABLE.

VAPOUR PRESSURE: NOT AVAILABLE.

VAPOR DENSITY: NOT AVAILABLE.

VOLATILITY: NOT AVAILABLE.

ODOR THRESHOLD: NOT AVAILABLE.

WATER/OIL DIST. COEFF: NOT AVAILABLE.

IONICITY (IN WATER): NOT AVAILABLE.

DISPERSION PROPERTIES: NOT AVAILABLE.

SOLUBILITY: NOT AVAILABLE.

SECTION 10: STABILITY AND REACTIVITY DATA

STABILITY: STABLE.

INSTABILITY TEMPERATURE: NOT AVAILABLE.

CONDITIONS OF INSTABILITY: NOT AVAILABLE.

INCOMPATIBILITY WITH VARIOUS SUBSTANCES: NOT AVAILABLE.

CORROSIVITY: NOT AVAILABLE.

SPECIAL REMARKS ON REACTIVITY: NOT AVAILABLE.

SPECIAL REMARKS ON CORROSIVITY: NOT AVAILABLE.

POLYMERIZATION: WILL NOT OCCUR.

SECTION 11: TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY: SKIN CONTACT. EYE CONTACT. INGESTION. INHALATION.

TOXICITY TO ANIMALS:

NOT AVAILABLE.

CHRONIC EFFECTS ON HUMANS: NOT AVAILABLE.

OTHER TOXIC EFFECTS ON HUMANS: NOT AVAILABLE.

SPECIAL REMARKS ON TOXICITY TO ANIMALS: NOT AVAILABLE.

SPECIAL REMARKS ON CHRONIC EFFECTS ON HUMANS: NOT AVAILABLE.

SPECIAL REMARKS ON OTHER TOXIC EFFECTS ON HUMANS: NOT AVAILABLE.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: NOT AVAILABLE.

BOD5 AND COD: NOT AVAILABLE.

PRODUCT OF BIODEGRADATION: NOT AVAILABLE.

TOXICITY OF THE PRODUCTS OF BIODEGRADATION: NOT AVAILABLE.

SPECIAL REMARKS ON THE PRODUCTS OF BIODEGRADATION: NOT AVAILABLE.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: DISPOSE OF IN ACCORDANCE WITH ALL STATE, LOCAL AND FEDERAL ENVIRONMENTAL CONTROL REGULATIONS REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

DOT CLASSIFICATION: NOT A DOT CONTROLLED MATERIAL.

IDENTIFICATION: NOT AVAILABLE.

SPECIAL PROVISIONS FOR TRANSPORT: NOT AVAILABLE.

SECTION 15: OTHER REGULATORY INFORMATION

FEDERAL AND STATE REGULATIONS: TSCA 8(B) INVENTORY : NO PRODUCTS WERE FOUND.

OTHER REGULATIONS: NOT AVAILABLE.

OTHER CLASSIFICATIONS:

WHMIS(CANADA): NOT AVAILABLE.

DSCL(EEC): NOT AVAILABLE.

HMIS(U.S.A):

HEALTH HAZARD: 1

FIRE HAZARD: 0

REACTIVITY: 0

PERSONAL PROTECTION:

NATIONAL FIRE PROTECTION ASSOCIATION (U.S.A):

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

SPECIFIC HAZARD:

PROTECTIVE EQUIPMENT: GLOVES. LAB COAT. DUST RESPIRATOR. BE SURE TO USE AN APPROVED/CERTIFIED RESPIRATOR OR EQUIVALENT.

SAFETY GOGGLES.

SECTION 16 - OTHER INFORMATION

DISCLAIMER

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