

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: GTP (GUANOSINE-5'-TRIPHOSPHATE)
CATALOG CODE: GB0332
CAS#: 36051-31-7
RTECS: NOT AVAILABLE.
CI#: NOT AVAILABLE.
SYNONYM: NOT AVAILABLE.
CHEMICAL NAME: GUANOSINE-5'-TRIPHOSPHATE, TRISODIUM SALT
CHEMICAL FORMULA: C₁₀H₁₃N₅O₁₄P₃NA₃

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

COMPOSITION:
NAME CAS# % BY WEIGHT
GTP (GUANOSINE-5'-TRIPHOSPHATE) 36051-31-7 -
TOXICOLOGICAL DATA ON INGREDIENTS:
NOT AVAILABLE.

SECTION 3: HAZARDS IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS: THE TOXICOLOGICAL PROPERTIES OF THIS PRODUCT HAVE NOT BEEN DETERMINED. IT MAY BE HARMFUL BY ALL ROUTES OF ENTRY. THIS PRODUCT MAY BE IRRITATING TO THE EYES, SKIN, AND UPPER RESPIRATORY TRACT.
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: IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.
SKIN CONTACT: IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.
SERIOUS SKIN CONTACT: WASH WITH A DISINFECTANT SOAP AND COVER THE CONTAMINATED SKIN WITH AN ANTI-BACTERIAL CREAM. SEEK MEDICAL ATTENTION.
INHALATION: IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
SERIOUS INHALATION: NOT AVAILABLE.
INGESTION: IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.
SERIOUS INGESTION: NOT AVAILABLE.

SECTION 5: FIRE AND EXPLOSION DATA

FLAMMABILITY OF THE PRODUCT: MAY BE COMBUSTIBLE AT HIGH TEMPERATURE.

AUTO-IGNITION TEMPERATURE: NOT AVAILABLE.

FLASH POINTS: NOT AVAILABLE.

FLAMMABLE LIMITS: NOT AVAILABLE.

PRODUCT OF COMBUSTION: THERMAL DECOMPOSITION MAY PRODUCE TOXIC FUMES OF PHOSPHORUS OXIDES AND/OR PHOSPHINE

CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES.

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: WATER SPRAY. CARBON DIOXIDE, DRY CHEMICAL POWDER, OR APPROPRIATE FOAM.

SPECIAL REMARKS ON FIRE HAZARDS: NOT AVAILABLE.

SPECIAL REMARKS ON EXPLOSION HAZARDS: NOT AVAILABLE.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SMALL SPILL: 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.

LARGE SPILL: USE A SHOVEL TO PUT THE MATERIAL INTO A CONVENIENT WASTE DISPOSAL

CONTAINER. FINISH CLEANING BY SPREADING

WATER ON THE CONTAMINATED SURFACE AND ALLOW TO EVACUATE THROUGH THE SANITARY SYSTEM.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS: AVOID INHALATION. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID PROLONGED OR REPEATED EXPOSURE.

STORAGE: KEEP TIGHTLY CLOSED.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

PERSONAL PROTECTION: RESPIRATORY : GOVERNMENT APPROVED 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: 589.13 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: PRODUCT SHOULD BE FAIRLY SOLUBLE IN WATER.

SECTION 10: STABILITY AND REACTIVITY DATA

STABILITY: STABLE.
INSTABILITY TEMPERATURE: NOT AVAILABLE.
CONDITIONS OF INSTABILITY: EXCESS HEAT, FLAME, AND PRESSURE.
INCOMPATIBILITY WITH VARIOUS SUBSTANCES: STRONG OXIDIZING AGENTS.
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: SKIN CONTACT: MAY CAUSE SKIN IRRITATION.
EYE CONTACT: MAY CAUSE EYE IRRITATION.
INHALATION: MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.
MULTIPLE ROUTES: MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.
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: 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

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

FOR R&D USE ONLY. NOT FOR DRUG, HOUSEHOLD OR OTHER USES.

WARRANTY

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