

## 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

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#### SECTION 1 - PRODUCT AND COMPANY INFORMATION

PRODUCT NAME CONGO RED  
PRODUCT NUMBER CB0324

#### SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENT

SUBSTANCE NAME CAS # SARA 313  
CONGO RED 573-58-0 NO  
FORMULA C32H22N6NA2O6S2  
SYNONYMS ATLANTIC CONGO RED \* ATUL CONGO RED \* AZOCARD RED  
CONGO \* BENZO CONGO RED \* BRASILAMINA CONGO 4B \*  
CERVEN KONGO (CZECH) \* CERVEN PRIMA 28 (CZECH) \*  
C.I. 22120 \* C.I. DIRECT RED 28 \* C.I. DIRECT RED  
28, DISODIUM SALT \* CONGO RED \* CONGO RED 4B \*  
CONGO RED 4BX \* CONGO RED CR \* CONGO RED H \*  
CONGO RED ICI \* CONGO RED L \* CONGO RED M \* CONGO  
RED N \* CONGO RED R \* CONGO RED RS \* CONGO RED W  
\* COTTON RED 5B \* COTTON RED 4BC \* COTTON RED L \*  
DIACOTTON CONGO RED \* DIRECT RED 28 \* DIRECT RED  
C \* DIRECT RED DC-CF \* DIRECT RED K \* ERIE CONGO  
4B \* HAEMONORM \* HEMORRHAGYL \* HISPAMIN CONGO 4B  
\* KAYAKU CONGO RED \* KONGOROT (GERMAN) \* MITSUI  
CONGO RED \* PEERAMINE CONGO RED \* RED K \* SODIUM  
DIPHENYLDIAZO-BIS(ALPHA-NAPHTHYLAMINESULFONATE) \*  
SUGAI CONGO RED \* TERTRODIRECT RED C \* TRISULFON  
CONGO RED \* VONDACEL RED CL \* NATRIUM-SALZ DER  
DIPHENYL-BIS-AZO-BIS-NAPHTHYLAMIN-4-SULFONSAEURE  
(GERMAN) \* C.I. 22120 \* DIRECT RED 28  
RTECS NUMBER: QK1400000

#### SECTION 3 - HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

TOXIC.

MAY CAUSE CANCER. POSSIBLE RISK OF HARM TO THE UNBORN CHILD.

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

CALIF. PROP. 65 CARCINOGEN.

HMIS RATING

HEALTH: 2\*

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING

HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

\*ADDITIONAL CHRONIC HAZARDS PRESENT.

FOR ADDITIONAL INFORMATION ON TOXICITY, PLEASE REFER TO SECTION 11.

#### SECTION 4 - FIRST AID MEASURES

##### ORAL EXPOSURE

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

##### INHALATION EXPOSURE

IF INHALED, REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT, CALL A PHYSICIAN.

##### DERMAL EXPOSURE

IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.

##### EYE EXPOSURE

IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

#### SECTION 5 - FIRE FIGHTING MEASURES

##### FLASH POINT

N/A

##### AUTOIGNITION TEMP

N/A

##### FLAMMABILITY

N/A

##### EXTINGUISHING MEDIA

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

##### FIRE FIGHTING

PROTECTIVE EQUIPMENT: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

SPECIFIC HAZARD(S): EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

#### SECTION 6 - ACCIDENTAL RELEASE MEASURES

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

EVACUATE AREA.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS, AND HEAVY RUBBER GLOVES. WEAR DISPOSABLE COVERALLS AND DISCARD THEM AFTER USE.

METHODS FOR CLEANING UP

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

##### HANDLING

USER EXPOSURE: DO NOT BREATHE DUST. DO NOT GET IN EYES, ON SKIN, ON CLOTHING. AVOID PROLONGED OR REPEATED EXPOSURE.

##### STORAGE

SUITABLE: KEEP TIGHTLY CLOSED.

#### SECTION 8 - EXPOSURE CONTROLS / PPE

##### ENGINEERING CONTROLS

USE ONLY IN A CHEMICAL FUME HOOD. SAFETY SHOWER AND EYE BATH.

##### PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN

(EU). WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULL-FACE PARTICLE RESPIRATOR TYPE N100 (US) OR TYPE P3 (EN 143) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR.  
HAND: COMPATIBLE CHEMICAL-RESISTANT GLOVES.  
EYE: CHEMICAL SAFETY GOGGLES.  
GENERAL HYGIENE MEASURES  
WASH CONTAMINATED CLOTHING BEFORE REUSE. WASH THOROUGHLY AFTER HANDLING.

#### SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

APPEARANCE PHYSICAL STATE: SOLID  
PROPERTY VALUE AT TEMPERATURE OR PRESSURE  
MOLECULAR WEIGHT 696.67 AMU  
PH 6.7 20 °C CONCENTRATION: 10 G/L  
BP/BP RANGE N/A  
MP/MP RANGE 360 °C  
FREEZING POINT N/A  
VAPOR PRESSURE N/A  
VAPOR DENSITY N/A  
SATURATED VAPOR CONC. N/A  
SG/DENSITY N/A  
BULK DENSITY 600.0 - 700.0 KG/L  
ODOR THRESHOLD N/A  
VOLATILE% N/A  
VOC CONTENT N/A  
WATER CONTENT N/A  
SOLVENT CONTENT N/A  
EVAPORATION RATE N/A  
VISCOSITY N/A  
SURFACE TENSION N/A  
PARTITION COEFFICIENT N/A  
DECOMPOSITION TEMP. N/A  
FLASH POINT N/A  
EXPLOSION LIMITS N/A  
FLAMMABILITY N/A  
AUTOIGNITION TEMP N/A  
REFRACTIVE INDEX N/A  
OPTICAL ROTATION N/A  
MISCELLANEOUS DATA N/A  
SOLUBILITY SOLUBILITY IN WATER:25 MG/ML H2O  
OTHER SOLVENTS: INSOLUBLE IN ETHER ETHANOL, ACETONE  
N/A = NOT AVAILABLE

#### SECTION 10 - STABILITY AND REACTIVITY

STABILITY  
STABLE: STABLE.  
MATERIALS TO AVOID: STRONG OXIDIZING AGENTS.  
HAZARDOUS DECOMPOSITION PRODUCTS  
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES, SULFUR OXIDES.  
HAZARDOUS POLYMERIZATION  
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

#### SECTION 11 - TOXICOLOGICAL INFORMATION

ROUTE OF EXPOSURE

SKIN CONTACT: CAUSES SKIN IRRITATION.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.

EYE CONTACT: CAUSES EYE IRRITATION.

INHALATION: MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. MAY BE HARMFUL IF INHALED.

INGESTION: MAY BE HARMFUL IF SWALLOWED.

SIGNS AND SYMPTOMS OF EXPOSURE

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND

TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

TOXICITY DATA

ORAL

MAN

143 MG/KG

LDLO

REMARKS: VASCULAR:OTHER CHANGES.

INTRAVENOUS

MAN

1429 UG/KG

LDLO

REMARKS: BEHAVIORAL:CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD.

BLOOD:CHANGE IN CLOTTING FACTORS. LUNGS, THORAX, OR

RESPIRATION:DYSPNEA.

ORAL

RAT

15200 MG/KG

LD50

IRRITATION DATA

EYES

RABBIT

100 MG

REMARKS: MODERATE IRRITATION EFFECT

CHRONIC EXPOSURE - CARCINOGEN

RESULT: THIS PRODUCT IS OR CONTAINS A COMPONENT THAT HAS BEEN REPORTED TO BE PROBABLY CARCINOGENIC BASED ON ITS IARC, OSHA, ACGIH, NTP, OR EPA CLASSIFICATION.

CHRONIC EXPOSURE - TERATOGEN

RESULT: POSSIBLE RISK OF CONGENITAL MALFORMATION IN THE FETUS.

SPECIES: RAT

DOSE: 200 MG/KG

ROUTE OF APPLICATION: INTRAPERITONEAL

EXPOSURE TIME: (9D PREG)

RESULT: SPECIFIC DEVELOPMENTAL ABNORMALITIES: CENTRAL NERVOUS SYSTEM. SPECIFIC DEVELOPMENTAL ABNORMALITIES: UROGENITAL SYSTEM.

SPECIFIC DEVELOPMENTAL ABNORMALITIES: EYE, EAR.

SPECIES: RAT

DOSE: 200 MG/KG

ROUTE OF APPLICATION: INTRAPERITONEAL

EXPOSURE TIME: (8D PREG)

RESULT: EFFECTS ON EMBRYO OR FETUS: OTHER EFFECTS TO EMBRYO.

SPECIES: MOUSE

DOSE: 5 GM/KG

ROUTE OF APPLICATION: ORAL

EXPOSURE TIME: (8-12D PREG)

RESULT: SPECIFIC DEVELOPMENTAL ABNORMALITIES: UROGENITAL SYSTEM.

EFFECTS ON NEWBORN: GERM CELL EFFECTS (IN OFFSPRING). EFFECTS ON

NEWBORN: DELAYED EFFECTS.

SPECIES: MOUSE

DOSE: 300 MG/KG  
ROUTE OF APPLICATION: INTRAPERITONEAL  
EXPOSURE TIME: (8D PREG)  
RESULT: SPECIFIC DEVELOPMENTAL ABNORMALITIES: UROGENITAL SYSTEM.  
CHRONIC EXPOSURE - MUTAGEN  
SPECIES: RAT  
DOSE: 10 UMOL/L  
CELL TYPE: LIVER  
MUTATION TEST: UNSCHEDULED DNA SYNTHESIS  
SPECIES: RAT  
DOSE: 300 MG/KG  
CELL TYPE: S. TYPHIMURIUM  
MUTATION TEST: BODY FLUID ASSAY  
SPECIES: MOUSE  
ROUTE: SKIN  
DOSE: 192 UMOL/KG  
MUTATION TEST: DNA  
SPECIES: HAMSTER  
DOSE: 10 UMOL/L  
CELL TYPE: LIVER  
MUTATION TEST: UNSCHEDULED DNA SYNTHESIS  
CHRONIC EXPOSURE - REPRODUCTIVE HAZARD  
SPECIES: RAT  
DOSE: 140 MG/KG  
ROUTE OF APPLICATION: INTRAPERITONEAL  
EXPOSURE TIME: (9D PREG)  
RESULT: EFFECTS ON FERTILITY: POST-IMPLANTATION MORTALITY (E.G.,  
DEAD AND/OR RESORBED IMPLANTS PER TOTAL NUMBER OF IMPLANTS).  
SPECIES: RAT  
DOSE: 140 MG/KG  
ROUTE OF APPLICATION: INTRAPERITONEAL  
EXPOSURE TIME: (8D PREG)  
RESULT: EFFECTS ON FERTILITY: POST-IMPLANTATION MORTALITY (E.G.,  
DEAD AND/OR RESORBED IMPLANTS PER TOTAL NUMBER OF IMPLANTS).  
SPECIES: MOUSE  
DOSE: 5 GM/KG  
ROUTE OF APPLICATION: ORAL  
EXPOSURE TIME: (MULTIGENERATION)  
RESULT: EFFECTS ON FERTILITY: FEMALE FERTILITY INDEX (E.G., #  
FEMALES PREGNANT PER # SPERM POSITIVE FEMALES; # FEMALES  
PREGNANT PER # FEMALES MATED ).  
SPECIES: MOUSE  
DOSE: 5 GM/KG  
ROUTE OF APPLICATION: ORAL  
EXPOSURE TIME: (8-12D PREG)  
RESULT: EFFECTS ON NEWBORN: GROWTH STATISTICS (E.G., REDUCED  
WEIGHT GAIN). EFFECTS ON NEWBORN: PHYSICAL.  
SPECIES: MOUSE  
DOSE: 2500 UG/KG  
ROUTE OF APPLICATION: ORAL  
EXPOSURE TIME: (MULTIGENERATION)  
RESULT: PATERNAL EFFECTS: SPERMATOGENESIS (INCLUDING GENETIC  
MATERIAL, SPERM MORPHOLOGY, MOTILITY, AND COUNT). PATERNAL  
EFFECTS: TESTES, EPIDIDYMIS, SPERM DUCT.  
SPECIES: MOUSE  
DOSE: 5 GM/KG  
ROUTE OF APPLICATION: ORAL  
EXPOSURE TIME: (8-12D PREG)

RESULT: EFFECTS ON NEWBORN: OTHER POSTNATAL MEASURES OR EFFECTS.  
SPECIES: MOUSE  
DOSE: 1500 MG/KG  
ROUTE OF APPLICATION: INTRAPERITONEAL  
EXPOSURE TIME: (8-12D PREG)  
RESULT: EFFECTS ON NEWBORN: GROWTH STATISTICS (E.G., REDUCED  
WEIGHT GAIN). EFFECTS ON NEWBORN: PHYSICAL.

SECTION 12 - ECOLOGICAL INFORMATION  
NO DATA AVAILABLE.

SECTION 13 - DISPOSAL CONSIDERATIONS  
APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION  
CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE  
OF THIS MATERIAL. OBSERVE ALL FEDERAL, STATE, AND LOCAL  
ENVIRONMENTAL REGULATIONS. (DN)REQUIRES SPECIAL LABEL: "CONTAINS A  
SUBSTANCE WHICH IS REGULATED BY DANNISH WORK ENVIRONMENTAL LAW DUE  
TO THE RISK OF CARCINOGENIC PROPERTIES."

SECTION 14 - TRANSPORT INFORMATION  
DOT  
PROPER SHIPPING NAME: NONE  
NON-HAZARDOUS FOR TRANSPORT: THIS SUBSTANCE IS  
CONSIDERED TO BE NON-HAZARDOUS FOR TRANSPORT.  
IATA  
NON-HAZARDOUS FOR AIR TRANSPORT: NON-HAZARDOUS FOR AIR  
TRANSPORT.

SECTION 15 - REGULATORY INFORMATION  
EU DIRECTIVES CLASSIFICATION  
SYMBOL OF DANGER: T  
INDICATION OF DANGER: TOXIC.  
R: 45-63  
RISK STATEMENTS: MAY CAUSE CANCER. POSSIBLE RISK OF HARM TO THE  
UNBORN CHILD.  
S: 53-45  
SAFETY STATEMENTS: RESTRICTED TO PROFESSIONAL USERS. ATTENTION -  
AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE. IN CASE  
OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE  
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).  
US CLASSIFICATION AND LABEL TEXT  
INDICATION OF DANGER: TOXIC.  
RISK STATEMENTS: MAY CAUSE CANCER. POSSIBLE RISK OF HARM TO THE  
UNBORN CHILD. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.  
SAFETY STATEMENTS: RESTRICTED TO PROFESSIONAL USERS. ATTENTION -  
AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE. IN CASE  
OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE  
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE). IN CASE OF CONTACT  
WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK  
MEDICAL ADVICE.  
US STATEMENTS: CALIF. PROP. 65 CARCINOGEN.  
UNITED STATES REGULATORY INFORMATION  
SARA LISTED: NO  
TSCA INVENTORY ITEM: YES  
UNITED STATES - STATE REGULATORY INFORMATION  
CALIFORNIA PROP - 65  
CALIFORNIA PROP - 65: THIS PRODUCT IS OR CONTAINS CHEMICAL(S)  
KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

CANADA REGULATORY INFORMATION

WHMIS CLASSIFICATION: THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR, AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

DSL: YES

NDSL: NO

SECTION 16 - OTHER INFORMATION

DISCLAIMER

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

WARRANTY

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