

BIO BASIC INC.

20 KONRAD CRES, MARKHAM ONTARIO L3R 8T4 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: 20 KONRAD CRES, MARKHAM ONTARIO L3R 8T4 CANADA

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SECTION 1 - PRODUCT AND COMPANY INFORMATION

PRODUCT NAME INDIGO CARMINE

PRODUCT NUMBER IB0532

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENT

SUBSTANCE NAME CAS # SARA 313

INDIGO CARMINE 860-22-0 NO

FORMULA C₁₆H₈N₂NA₂O₈S₂

SYNONYMS ACID BLUE W * ACID LEATHER BLUE IC * A.F. BLUE

NO. 2 * AIREDALE BLUE IN * AMACID BRILLIANT BLUE

* ANILINE CARMINE POWDER * ATUL INDIGO CARMINE *

1311 BLUE * 12070 BLUE * BUCACID INDIGOTINE B *

CANACERT INDIGO CARMINE * CARMINE BLUE

(BIOLOGICAL STAIN) * C.I. 73015 * C.I. 75781 *

C.I. ACID BLUE 74 * C.I. FOOD BLUE 1 * C.I. FOOD

BLUE 1, DISODIUM SALT * CILEFA BLUE R * C.I.

NATURAL BLUE 2 * DISODIUM INDIGO-5,5-DISULFONATE

* DISODIUM SALT OF 1-INDIGOTIN-S,S'-DISULPHONIC

ACI * DOLKWAL INDIGO CARMINE * E 132 * EDICOL

SUPRA BLUE X * FD AND C BLUE NO. 2 * FOOD BLUE 2

* GRAPE BLUE A GEIGY * HD INDIGO CARMINE * HD

INDIGO CARMINE SUPRA * HEXACERT BLUE NO. 2 *

HEXACOL INDIGO CARMINE SUPRA * INDIGO CARMINE *

INDIGO CARMINE A * INDIGO CARMINE AC * INDIGO

CARMINE (BIOLOGICAL STAIN) * INDIGO CARMINE BP *

INDIGO CARMINE CONC. FQ * INDIGO CARMINE DISODIUM

SALT * INDIGO CARMINE POWDER * INDIGO CARMINE X *

INDIGO DISULFONATE (BIOLOGICAL STAIN) * INDIGO

EXTRACT * INDIGO-KARMIN (GERMAN) * INDIGOTIN I *

5,5'-INDIGOTINDISULFONIC ACID *

INDIGOTIN-5,5'-DISULFONIC ACID DISODIUM SALT *

INDIGOTINE * INDIGOTINE B * INDIGOTINE BLUE LZ *

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HARMFUL.

HARMFUL IF SWALLOWED.

HMIS RATING

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 1

NFPA RATING

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 1

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 NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

DERMAL EXPOSURE

IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.

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.

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

STORAGE

SUITABLE: KEEP TIGHTLY CLOSED.

SPECIAL REQUIREMENTS

LIGHT SENSITIVE.

SECTION 8 - EXPOSURE CONTROLS / PPE

ENGINEERING CONTROLS

SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED.
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 DUST MASK TYPE N95 (US) OR TYPE P1 (EN 143) RESPIRATOR.
HAND: COMPATIBLE CHEMICAL-RESISTANT GLOVES.
EYE: CHEMICAL SAFETY GOGGLES.
GENERAL HYGIENE MEASURES
WASH THOROUGHLY AFTER HANDLING.

SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

APPEARANCE PHYSICAL STATE: SOLID
COLOR: DEEP VIOLET
FORM: POWDER
PROPERTY VALUE AT TEMPERATURE OR PRESSURE
MOLECULAR WEIGHT 466.36 AMU
PH N/A
BP/BP RANGE N/A
MP/MP RANGE N/A
FREEZING POINT N/A
VAPOR PRESSURE N/A
VAPOR DENSITY N/A
SATURATED VAPOR CONC. N/A
SG/DENSITY N/A
BULK DENSITY N/A
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 N/A
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: MAY CAUSE SKIN IRRITATION.

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

EYE CONTACT: MAY CAUSE EYE IRRITATION.

INHALATION: MAY BE HARMFUL IF INHALED.

INGESTION: 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

RAT

2000 MG/KG

LD50

INTRAVENOUS

RAT

93 MG/KG

LD50

ORAL

MOUSE

2500 MG/KG

LD50

SUBCUTANEOUS

MOUSE

405 MG/KG

LD50

CHRONIC EXPOSURE - CARCINOGEN

SPECIES: RAT

ROUTE OF APPLICATION: SUBCUTANEOUS

DOSE: 9 GM/KG

EXPOSURE TIME: 2Y

FREQUENCY: I

RESULT: TUMORIGENIC:NEOPLASTIC BY RTECS CRITERIA.

TUMORIGENIC:TUMORS AT SITE OR APPLICATION.

CHRONIC EXPOSURE - MUTAGEN

SPECIES: MOUSE

ROUTE: ORAL

DOSE: 5400 MG/KG

EXPOSURE TIME: 90D

MUTATION TEST: CYTOGENETIC ANALYSIS

SPECIES: MOUSE

ROUTE: ORAL

DOSE: 60 MG/KG

EXPOSURE TIME: 30D

MUTATION TEST: CYTOGENETIC ANALYSIS

SPECIES: MOUSE

ROUTE: INTRAPERITONEAL

DOSE: 25 MG/KG

MUTATION TEST: SISTER CHROMATID EXCHANGE

SPECIES: HAMSTER

DOSE: 12 GM/L

CELL TYPE: FIBROBLAST

MUTATION TEST: CYTOGENETIC ANALYSIS

SPECIES: HAMSTER

DOSE: 20 UMOL/L

EXPOSURE TIME: 5H

CELL TYPE: OVARY

MUTATION TEST: CYTOGENETIC ANALYSIS

MUTATION TEST: HISTIDINE REVERSION (AMES)

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. 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
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 ADDITIONAL CLASSIFICATION
SYMBOL OF DANGER: XN
INDICATION OF DANGER: HARMFUL.
R: 22
RISK STATEMENTS: HARMFUL IF SWALLOWED.
S: 22-24/25
SAFETY STATEMENTS: DO NOT BREATHE DUST. AVOID CONTACT WITH SKIN
AND EYES.
US CLASSIFICATION AND LABEL TEXT
INDICATION OF DANGER: HARMFUL.
RISK STATEMENTS: HARMFUL IF SWALLOWED.
SAFETY STATEMENTS: WEAR SUITABLE PROTECTIVE CLOTHING.
UNITED STATES REGULATORY INFORMATION
SARA LISTED: NO
TSCA INVENTORY ITEM: YES
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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PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. THE
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