

## 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 7, 2007

#### SECTION 1 - PRODUCT AND COMPANY INFORMATION

PRODUCT NAME METHYL RED  
PRODUCT NUMBER MB0627

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

SUBSTANCE NAME CAS # SARA 313  
METHYL RED 493-52-7 NO  
FORMULA C15H15N3O2  
SYNONYMS 2-CARBOXY-4'-(DIMETHYLAMINO)AZOBENZENE \* CERVEN  
KYESELA 2 (CZECH) \* CERVEN METHYLOVA (CZECH) \*  
C.I. 13020 \* C.I. ACID RED 2 \*  
P-(DIMETHYLAMINO)AZOBENZENE-O-CARBOXYLIC ACID \*  
4'-DIMETHYLAMINOAZOBENZENE-2-CARBOXYLIC ACID \*  
O-((P-(DIMETHYLAMINO)PHENYL)AZO)BENZOIC ACID \*  
2-((4-DIMETHYLAMINO)PHENYL)AZO)BENZOIC ACID \*  
METHYL RED  
RTECS NUMBER: DG8960000

#### SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW  
CAUTION: AVOID CONTACT AND INHALATION.  
HMIS RATING  
HEALTH: 1  
FLAMMABILITY: 0  
REACTIVITY: 0  
NFPA RATING  
HEALTH: 1  
FLAMMABILITY: 0  
REACTIVITY: 0  
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.

FIREFIGHTING

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(S) OF PERSONAL PRECAUTION(S)

EXERCISE APPROPRIATE PRECAUTIONS TO MINIMIZE DIRECT CONTACT WITH SKIN OR EYES AND PREVENT INHALATION OF DUST.

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

STORAGE

SUITABLE: KEEP TIGHTLY CLOSED.

#### 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). RESPIRATORY PROTECTION IS NOT REQUIRED. WHERE PROTECTION FROM NUISANCE LEVELS OF DUSTS ARE DESIRED, USE TYPE N95 (US) OR TYPE P1 (EN 143) DUST MASKS.

HAND: PROTECTIVE 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 269.31 AMU

PH N/A

BP/BP RANGE N/A

MP/MP RANGE 179.0 - 182.0 °C

FREEZING POINT N/A  
VAPOR PRESSURE N/A  
VAPOR DENSITY N/A  
SATURATED VAPOR CONC. N/A  
SG/DENSITY 0.989 G/CM3  
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.

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: MATERIAL MAY BE 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.

##### CHRONIC EXPOSURE - CARCINOGEN

RESULT: THIS PRODUCT IS OR CONTAINS A COMPONENT THAT IS NOT  
CLASSIFIABLE AS TO ITS CARCINOGENICITY BASED ON ITS IARC, ACGIH,  
NTP, OR EPA CLASSIFICATION.

SPECIES: RAT

ROUTE OF APPLICATION: ORAL

DOSE: 12 GM/KG

EXPOSURE TIME: 57W

FREQUENCY: C

RESULT: LIVER:TUMORS. TUMORIGENIC:EQUIVOCAL TUMORIGENIC AGENT BY  
RTECS CRITERIA.

IARC CARCINOGEN LIST

RATING: GROUP 3

CHRONIC EXPOSURE - MUTAGEN

RESULT: LABORATORY EXPERIMENTS HAVE SHOWN MUTAGENIC EFFECTS.

SPECIES: RAT

DOSE: 10 UMOL/L

CELL TYPE: LIVER

MUTATION TEST: UNSCHEDULED DNA SYNTHESIS

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

S: 22-24/25

SAFETY STATEMENTS: DO NOT BREATHE DUST. AVOID CONTACT WITH SKIN  
AND EYES.

US CLASSIFICATION AND LABEL TEXT

US STATEMENTS: CAUTION: AVOID CONTACT AND INHALATION.

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

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT  
PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. THE  
INFORMATION IN THIS DOCUMENT IS BASED ON THE PRESENT STATE OF OUR  
KNOWLEDGE AND IS APPLICABLE TO THE PRODUCT WITH REGARD TO  
APPROPRIATE SAFETY PRECAUTIONS. IT DOES NOT REPRESENT ANY  
GUARANTEE OF THE PROPERTIES OF THE PRODUCT. BIOBASIC,  
SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR

FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE  
OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.  
COPYRIGHT 2007 BIOBASIC. LICENSE GRANTED TO MAKE UNLIMITED  
PAPER COPIES FOR INTERNAL USE ONLY.