

BIO BASIC INC.

160 TORBAY ROAD, MARKHAM ONTARIO L3R 1G6 CANADA
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MATERIAL SAFETY DATA SHEET

REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

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ADDRESS: 160 TORBAY ROAD, MARKHAM ONTARIO L3R 1G6 CANADA

DATE PREPARED: AUGUST 16, 2007

SECTION 1 - PRODUCT AND COMPANY INFORMATION

PRODUCT NAME BIS-ACRYLAMIDE SOLUTION
PRODUCT NUMBER A0114

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENT

SUBSTANCE NAME CAS # SARA 313
BIS-ACRYLAMIDE SOLUTION NONE YES
INGREDIENT NAME CAS # PERCENT SARA 313
WATER 7732-18-5 60 NO
N,N'-METHYLENE BIS(ACRYLAMIDE) 110-26-9 >= 1 NO
<= 1.5

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

TOXIC.

MAY CAUSE CANCER. MAY CAUSE HERITABLE GENETIC DAMAGE. MAY IMPAIR FERTILITY. POSSIBLE RISK OF HARM TO THE UNBORN CHILD. TOXIC IN CONTACT WITH SKIN AND IF SWALLOWED. IRRITATING TO EYES AND SKIN. MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT. READILY ABSORBED THROUGH SKIN. TARGET ORGAN(S): NERVES. KIDNEYS.

HMIS RATING

HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING

HEALTH: 2

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 IMMEDIATELY.

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

EXPLOSION HAZARDS

CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

SUITABLE: 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 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

ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR DISPOSAL. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7 - HANDLING AND STORAGE

HANDLING

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

STORAGE

SUITABLE: KEEP TIGHTLY CLOSED.

STORE AT 2-8°C

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 RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR TYPE ABEK (EN 14387) 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: LIQUID
PROPERTY VALUE AT TEMPERATURE OR PRESSURE
MOLECULAR WEIGHT N/A
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: UNSTABLE.

CONDITIONS TO AVOID: AIR SENSITIVE.

MATERIALS TO AVOID: AVOID CONTACT WITH ACID., BASES, OXIDIZING AGENTS, REDUCING AGENTS IRON AND IRON SALTS., COPPER, ALUMINUM, BRASS, FREE RADICAL INITIATORS

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES, AMMONIA.

HAZARDOUS POLYMERIZATION

HAZARDOUS POLYMERIZATION: MAY OCCUR

HAZARDOUS POLYMERIZATION REACTIONS: MAY POLYMERIZE ON EXPOSURE TO LIGHT.

SECTION 11 - TOXICOLOGICAL INFORMATION

ROUTE OF EXPOSURE

SKIN CONTACT: MAY CAUSE SKIN IRRITATION.

SKIN ABSORPTION: TOXIC IF ABSORBED THROUGH SKIN.

EYE CONTACT: MAY CAUSE EYE IRRITATION.

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

INGESTION: TOXIC IF SWALLOWED.

SENSITIZATION

RESPIRATORY: MAY CAUSE ALLERGIC RESPIRATORY REACTION.

SKIN: MAY CAUSE ALLERGIC SKIN REACTION.

TARGET ORGAN(S) OR SYSTEM(S)

KIDNEYS. NERVES.

SIGNS AND SYMPTOMS OF EXPOSURE

ACRYLAMIDE TOXICITY IS MANIFESTED AS A SENSORIMOTOR PERIPHERAL NEUROPATHY. SYMPTOMS INCLUDE: DROWSINESS, LOSS OF BALANCE, CONFUSION, MEMORY LOSS, HALLUCINATIONS, NUMBNESS, PARESTHESIAS (ATAXIA, TREMOR, DYSARTHRIA), AND INCOORDINATION.

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.

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

RESULT: MAY CAUSE REPRODUCTIVE DISORDERS.

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: ACRYLAMIDE SOLUTION

UN#: 3426

CLASS: 6.1

PACKING GROUP: PACKING GROUP III

HAZARD LABEL: TOXIC SUBSTANCES.

PIH: NOT PIH

IATA

PROPER SHIPPING NAME: ACRYLAMIDE SOLUTION

IATA UN NUMBER: 3426

HAZARD CLASS: 6.1

PACKING GROUP: III

SECTION 15 - REGULATORY INFORMATION

EU ADDITIONAL CLASSIFICATION

SYMBOL OF DANGER: T

INDICATION OF DANGER: TOXIC.

R: 45-46-20/21-25-36/38-43-48/23/24/25-62

RISK STATEMENTS: MAY CAUSE CANCER. MAY CAUSE HERITABLE GENETIC DAMAGE. ALSO HARMFUL BY INHALATION AND IN CONTACT WITH SKIN.

ALSO TOXIC IF SWALLOWED. IRRITATING TO EYES AND SKIN. MAY CAUSE SENSITIZATION BY SKIN CONTACT. ALSO TOXIC: DANGER OF SERIOUS DAMAGE TO HEALTH BY PROLONGED EXPOSURE THROUGH INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. POSSIBLE RISK OF IMPAIRED FERTILITY.

S: 53-26-36/37-45

SAFETY STATEMENTS: RESTRICTED TO PROFESSIONAL USERS. ATTENTION - AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE. IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. WEAR SUITABLE PROTECTIVE CLOTHING AND

GLOVES. 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. MAY CAUSE HERITABLE GENETIC DAMAGE. MAY IMPAIR FERTILITY. POSSIBLE RISK OF HARM TO THE UNBORN CHILD. TOXIC IN CONTACT WITH SKIN AND IF SWALLOWED. IRRITATING TO EYES AND SKIN. MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.
SAFETY STATEMENTS: 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). WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES, AND EYE/FACE PROTECTION. DO NOT BREATHE VAPOR.
US STATEMENTS: READILY ABSORBED THROUGH SKIN. TARGET ORGAN(S): NERVES. KIDNEYS.
UNITED STATES REGULATORY INFORMATION
SARA LISTED: YES
NOTES: THIS PRODUCT IS OR CONTAINS A COMPONENT THAT IS SUBJECT TO SARA313 REPORTING REQUIREMENTS.
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: NO
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.
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