

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 SUCCINIC ANHYDRIDE, 99+%
PRODUCT NUMBER SB7835

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENT

SUBSTANCE NAME CAS # SARA 313
SUCCINIC ANHYDRIDE 108-30-5 NO
FORMULA C4H4O3
SYNONYMS BERNSTEINSAURE-ANHYDRID (GERMAN) * BUTANEDIOIC
ANHYDRIDE * DIHYDRO-2,5-FURANDIONE *
2,5-DIKETOTETRAHYDROFURAN * 2,5-FURANDIONE,
DIHYDRO- * NCI-C55696 * RIKACID SA * SUCCINIC
ACID ANHYDRIDE * SUCCINYL ANHYDRIDE * SUCCINYL
OXIDE * TETRAHYDRO-2,5-DIOXOFURAN *
TETRAHYDRO-2,5-FURANDIONE
RTECS NUMBER: WN0875000

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HARMFUL.

HARMFUL IF SWALLOWED. IRRITATING TO RESPIRATORY SYSTEM AND SKIN.

RISK OF SERIOUS DAMAGE TO EYES.

POSSIBLE SENSITIZER.

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.

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.

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 RESPIRATOR, CHEMICAL SAFETY GOGGLES, 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

MOISTURE 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: WHITE
FORM: FINE CRYSTALS
PROPERTY VALUE AT TEMPERATURE OR PRESSURE
MOLECULAR WEIGHT 100.07 AMU
PH N/A
BP/BP RANGE 261 °C 760 MMHG
MP/MP RANGE 118 °C
FREEZING POINT N/A
VAPOR PRESSURE 1 MMHG 92 °C
VAPOR DENSITY 3.5 G/L
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 LOG KOW: - 1.701
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

CONDITIONS OF INSTABILITY: MAY DECOMPOSE ON EXPOSURE TO MOIST AIR OR WATER.

MATERIALS TO AVOID: STRONG OXIDIZING AGENTS, ALCOHOLS, AMINES.

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE.

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 SEVERE EYE IRRITATION.

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

INGESTION: HARMFUL IF SWALLOWED.

SENSITIZATION

SENSITIZATION: PROLONGED OR REPEATED EXPOSURE MAY CAUSE ALLERGIC REACTIONS IN CERTAIN SENSITIVE INDIVIDUALS.

SIGNS AND SYMPTOMS OF EXPOSURE

THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES OF THIS PRODUCT HAVE NOT BEEN THOROUGHLY INVESTIGATED.

TOXICITY DATA

ORAL
RAT
1510 MG/KG
LD50
IRRITATION DATA
EYES
RABBIT
0.75 MG
REMARKS: SEVERE IRRITATION EFFECT
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: SUBCUTANEOUS
DOSE: 2600 MG/KG
EXPOSURE TIME: 65W
FREQUENCY: I
RESULT: TUMORIGENIC:NEOPLASTIC BY RTECS CRITERIA.
TUMORIGENIC:TUMORS AT SITE OR APPLICATION.
IARC CARCINOGEN LIST
RATING: GROUP 3
NTP CARCINOGEN LIST
RATING: NO EVIDENCE.
SPECIES: RAT, MOUSE
ROUTE: FEED
CHRONIC EXPOSURE - TERATOGEN
SPECIES: MOUSE
DOSE: 79 MG/KG
ROUTE OF APPLICATION: INTRAPERITONEAL
EXPOSURE TIME: (8-10D PREG)
RESULT: SPECIFIC DEVELOPMENTAL ABNORMALITIES: OTHER
DEVELOPMENTAL ABNORMALITIES.
CHRONIC EXPOSURE - MUTAGEN
SPECIES: HAMSTER
DOSE: 100 UG/L
CELL TYPE: EMBRYO
MUTATION TEST: MORPHOLOGICAL TRANSFORMATION.

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 DIRECTIVES CLASSIFICATION

SYMBOL OF DANGER: XI

INDICATION OF DANGER: IRRITANT.

R: 36/37

RISK STATEMENTS: IRRITATING TO EYES AND RESPIRATORY SYSTEM.

S: 25

SAFETY STATEMENTS: AVOID CONTACT WITH EYES.

US CLASSIFICATION AND LABEL TEXT

INDICATION OF DANGER: HARMFUL.

RISK STATEMENTS: HARMFUL IF SWALLOWED. IRRITATING TO RESPIRATORY SYSTEM AND SKIN. RISK OF SERIOUS DAMAGE TO EYES.

SAFETY STATEMENTS: DO NOT BREATHE DUST. IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. WEAR SUITABLE PROTECTIVE CLOTHING.

US STATEMENTS: POSSIBLE SENSITIZER.

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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