

# BIO BASIC INC.

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## MATERIAL SAFETY DATA SHEET

REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

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### SECTION 1. ----- CHEMICAL IDENTIFICATION -----

CODE: GB0232

NAME: GLYCEROL

### SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

CHEMICAL NAME: CAS#: RTECS #: %:

GLYCEROL 56-81-5 MA8050000 >99.0

FOR MORE INFORMATION SEE COMPLETE RTECS ENTRY.

MF: C3H8O3

EC NO: 200-289-5

SYNONYMS

CITIFLUOR AF 2 \* GLYCERIN \* GLYCERIN, ANHYDROUS \* GLYCERINE \*

GLYCERIN MIST (ACGIH, OSHA) \* GLYCERIN, SYNTHETIC \* GLYCERITOL \*

GLYCYL ALCOHOL \* CLYZERIN, WASSERFREI (GERMAN) \* GROCOLENE \* MOON \*

OSMOGLYN \* 1,2,3-PROPANETRIOL \* STAR \* SYNTHETIC GLYCERIN \* 90

TECHNICAL GLYCERINE \* TRIHYDROXYPROPANE \* 1,2,3-TRIHYDROXYPROPANE \*

### SECTION 3. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

IRRITANT

IRRITATING TO EYES AND SKIN.

TARGET ORGAN(S):

KIDNEYS

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

WEAR SUITABLE PROTECTIVE CLOTHING.

### SECTION 4. ----- FIRST-AID MEASURES -----

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

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

CALL A PHYSICIAN.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

### SECTION 5. ----- FIRE FIGHTING MEASURES -----

EXTINGUISHING MEDIA

WATER SPRAY.

CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIREFIGHTING PROCEDURES

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

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

### SECTION 6. ----- ACCIDENTAL RELEASE MEASURES -----

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY RUBBER GLOVES.

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-----**

REFER TO SECTION 8.

**ADDITIONAL INFORMATION**

VIOLENT OR EXPLOSIVE REACTIONS HAVE OCCURED UPON DIRECT CONTACT OF GLYCEROL WITH: SODIUM HYDRIDE, PHOSPHOROUS TRIOXIDE, PERCHLORIC ACID, CHLORINE, CALCIUM HYPOCHLORITE, NITRIC ACID AND HYDROFLUORIC ACID, NITRIC ACID AND SULFURIC ACID, SODIUM PEROXIDE, HYDROGEN PEROXIDE OR POTASSIUM PERMANGANATE.

**SECTION 8.-----EXPOSURE CONTROLS/PERSONAL PROTECTION-----**

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.

MECHANICAL EXHAUST REQUIRED.

SAFETY SHOWER AND EYE BATH.

DO NOT BREATHE VAPOR.

AVOID CONTACT WITH EYES, SKIN AND CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

WASH THOROUGHLY AFTER HANDLING.

KEEP TIGHTLY CLOSED.

STORE IN A COOL DRY PLACE.

**SECTION 9.-----PHYSICAL AND CHEMICAL PROPERTIES-----**

APPEARANCE AND ODOR

VISCOUS COLORLESS LIQUID

PHYSICAL PROPERTIES

BOILING POINT: 182 C/20MM.

MELTING POINT: 20 C

FLASHPOINT 320F

160C

EXPLOSION LIMITS IN AIR:

LOWER 0.9%

AUTOIGNITION TEMPERATURE: 698 F 369C

VAPOR PRESSURE: <1MM 20 C

SPECIFIC GRAVITY: 1.261

VAPOR DENSITY: 3.1

**SECTION 10.-----STABILITY AND REACTIVITY-----**

INCOMPATIBILITIES

STRONG OXIDIZING AGENTS

STRONG BASES

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

CARBON MONOXIDE, CARBON DIOXIDE

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

**SECTION 11.-----TOXICOLOGICAL INFORMATION-----**

ACUTE EFFECTS

MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.

CAUSES EYE AND SKIN IRRITATION.

MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

PROLONGED EXPOSURE CAN CAUSE:

NAUSEA, HEADACHE AND VOMITING

CHRONIC EFFECTS

TARGET ORGAN(S): KIDNEYS

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

RTECS #: MA8050000

GLYCEROL

IRRITATION DATA

SKN-RBT 500 MG/24H MLD 85JCAE -,207,1986

EYE-RBT 126 MG MLD BIOFX\* 9-4/1970

EYE-RBT 500 MG/24H MLD 85JCAE -,207,1986

TOXICITY DATA

ORL-RAT LD50:12600 MG/KG FEPRA7 4,142,1945

IHL-RAT LC50:>570 MG/M3/1H BIOFX\* 9-4/1970

IPR-RAT LD50:4420 MG/KG RCOCB8 56,125,1987

SCU-RAT LD50:100 MG/KG NIIRDN 6,215,1982

IVN-RAT LD50:5566 MG/KG ARZNAD 26,1581,1976

ORL-MUS LD50:4090 MG/KG FRZKAP (6),56,1977

IPR-MUS LD50:8700 MG/KG ARZNAD 28,1579,1978

SCU-MUS LD50:91 MG/KG NIIRDN 6,215,1982

IVN-MUS LD50:4250 MG/KG JAPMA8 39,583,1950

ORL-RBT LD50:27 GM/KG DMDJAP 31,276,1959

SKN-RBT LD50:>10 GM/KG BIOFX\* 9-4/1970

IVN-RBT LD50:53 GM/KG NIIRDN 6,215,1982

ORL-GPG LD50:7750 MG/KG JIHTAB 23,259,1941

TARGET ORGAN DATA

BEHAVIORAL (HEADACHE)

GASTROINTESTINAL (NAUSEA OR VOMITING)

PATERNAL EFFECTS (SPERMATOGENESIS)

PATERNAL EFFECTS (TESTES, EPIDIDYMIS, SPERM DUCT)

EFFECTS ON FERTILITY (MALE FERTILITY INDEX)

EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES

(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR

COMPLETE INFORMATION.

**SECTION 12. ----- ECOLOGICAL INFORMATION -----**

DATA NOT YET AVAILABLE.

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

**SECTION 14. ----- TRANSPORT INFORMATION -----**

NOT REGULATED.

**SECTION 15. ----- REGULATORY INFORMATION -----**

EUROPEAN INFORMATION

IRRITANT

R: 36/37/38

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

S: 36/37/39

WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-TWA 10 MG/M3, INHALABLE PARTICULATE DTLVS\* TLV/BEI,1996

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION

FEREAC 54,7740,1989

MSHA STANDARD:NUISANCE PARTICULATES (MIST)

DTLWS\* 3,20,1973

OSHA PEL (GEN INDU):8H TWA 15 MG/M3, TOTAL DUST

CFRGBR 29,1910.1000,1994

OSHA PEL (GEN INDU):8H TWA 5 MG/M3, RESPIRABLE FRACTION

CFRGBR 29,1910.1000,1994

OSHA PEL (CONSTRUC):8H TWA 15 MG/M3, TOTAL DUST

CFRGBR 29,1926.55,1994

OSHA PEL (CONSTRUC):8H TWA 5 MG/M3, RESPIRABLE FRACTION

CFRGBR 29,1926.55,1994

OSHA PEL (SHIPYARD):8H TWA 15 MG/M3, TOTAL DUST

CFRGBR 29,1915.1000,1993

OSHA PEL (SHIPYARD):8H TWA 5 MG/M3, RESPIRABLE FRACTION

CFRGBR 29,1915.1000,1993

OEL-AUSTRALIA:TWA 10 MG/M3 JAN 1993  
OEL-BELGIUM:TWA 10 MG/M3 JAN 1993  
OEL-FINLAND:TWA 20 MG/M3 JAN 1993  
OEL-FRANCE:TWA 10 MG/M3 JAN 1993  
OEL-THE NETHERLANDS:TWA 10 MG/M3 JAN 1993  
OEL-UNITED KINGDOM:TWA 10 MG/M3 JAN 1993  
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV  
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV  
NOHS 1974: HZD 35085; NIS 358; TNF 86657; NOS 198; TNE 1085329  
NOES 1983: HZD 35085; NIS 310; TNF 67054; NOS 215; TNE 2135546; TFE 1346631  
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY  
EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES  
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, APRIL 1997

**SECTION 16. ----- OTHER INFORMATION-----**

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. BIO BASIC INC. 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.