



MATERIAL SAFETY DATA SHEET BIO-BLAST

SECTION 1: IDENTIFICATION

Product Name: Bio-Blast
Product Code: B70
Manufacturer's Name: E-ZOIL Products, Inc.
Address: 234 Fillmore Avenue, Tonawanda, NY 14150 USA
Emergency Phone: 800-633-8253 PERS
Business Phone: 855-693-9645

SECTION 2: HAZARD IDENTIFICATION

Toxic if swallowed. Combustible. Highly toxic by inhalation of mist. Corrosive to eyes and skin. Sensitizer.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| CHEMICAL NAME | CAS NUMBER | % BY WEIGHT | TLV |
|--------------------------------------|------------|-------------|----------------|
| Diethylene glycol monomethyl ether | 111-77-3 | 86 | Not available. |
| 2-(Thiocyanomethylthio)benzothiazole | 21564-17-0 | 2.5 | Not available. |
| Methylene bis(thiocyanate) | 6317-18-6 | 2.5 | Not available. |

While some substances are claimed as trade secret in accordance with the provision of OSHA 29 CFR 1910.1200(i), all known hazards are clearly communicated within this document.

SECTION 4: FIRST AID MEASURES

EYE EXPOSURE: Flush immediately with copious amounts of tap water or normal saline (minimum of 15 minutes). Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluation.

SKIN EXPOSURE: Wash exposed area with plenty of water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists consult a health care professional.

INHALATION: If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care professional immediately.

INGESTION: DO NOT INDUCE VOMITING. Rinse with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose or convulsing, DO NOT GIVE FLUIDS BY MOUTH. In case of intentional ingestion of the product seek medical assistance immediately; take individual to nearest medical facility.

SECTION 5: FIRE FIGHTING MEASURES

FLAMMABLE LIMITS: Not available.

EXTINGUISHING MEDIA: Water fog, carbon dioxide, foam, dry chemical.

SPECIAL FIREFIGHTING PROCEDURES: Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by appropriately trained personnel using preplanned procedures. Remove all sources of ignition. Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate protective equipment (see Section 8, Exposure Control/Personal Protection).

SPILLS: Contain and absorb spills with non-combustible, inert absorbent material. Place absorbent material into a container. Dispose of container in accordance with U.S. federal, state, and local hazardous waste disposal regulations or those of Canada (see Section 13, Disposal Considerations).

ENVIRONMENTAL PRECAUTIONS: U.S. Regulations (CERCLA) requires reporting spills and releases into the environment in excess of reportable quantities. Prevent entry into sewers, basements or confined areas, dike if needed.

SECTION 7: HANDLING AND STORAGE

Rubber gloves, safety glasses or goggles and body protective clothing and shoes are required. When splashing can occur, a neoprene apron or neoprene rain suit and a face shield are advisable. Eye-wash fountains in the work place are strongly recommended.

Respiratory protection is required for work areas where misting may occur. A comprehensive respiratory protection program is needed when respirators must be used.

The handling precautions for this product are based on the characteristics of the neat product unless otherwise specified.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

1. EFFECTS FROM ACUTE EXPOSURE:

EYE EXPOSURE: Very hazardous in case of eye contact (irritant, corrosive). Inflammation of the eye is characterized by redness, watering and itching.

SKIN EXPOSURE: Very hazardous in case of skin contact (sensitizer). Hazardous in case of skin contact (corrosive, irritant). Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering.

INHALATION: May be harmful if inhaled. Do not breathe spray mists of the undiluted product. Effects will depend upon solution strength and length of time of exposure. Ingestion: Ingestion is not expected to be a primary route of exposure.

INGESTION: Ingestion is not expected to be a primary route of exposure.

2. EFFECTS FROM CHRONIC EXPOSURE:

Chronic feeding studies on the active ingredient did not reveal any significant adverse effects.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear amber liquid
Odor: Slight.
Density: 1.03 g/cm³
Flash Point: Closed cup: 70 °C (158 °F). (Tagliabue.)
Melting/Freezing Point: <-30 °C (-22 °F)
Boiling Point: >100 °C (212 °F)
Solubility: Dispersible in cold water. Dispersible in hot water.
pH (Neat): Not available.
pH (100 ppm in water): 6 - 7
Vapor Pressure: Not available.
o/w Partition Coefficient: Not available.
Oxidizing/Reducing Properties: Not available.
Viscosity: Not available.
Additional pH Information: Not available.

NOTE: The physical data presented above are typical values and should not be construed as specifications.

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Do not heat and/or store above 50C as decomposition may increase packaging pressure.

INCOMPATIBILITY: Strong acids, strong oxidizers, strong bases. Extended heating at high temperatures.

HAZARDOUS DECOMPOSITION PRODUCTS: Cyanide salts are formed when product contacts strong alkali. Thermal decomposition of product can produce toxic vapors of hydrogen cyanide and sulfur dioxide. Contact with fire may generate oxides or sulfur, nitrogen and carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:

This product contains 2.5% of each active ingredient, TCMTB and MTC. The following data was developed from tests conducted with a formulation containing 10% of each of the active ingredients. Additional information is available in the Toxicity Profiles of the individual actives.

Oral: LD50/Rat = 250 mg/kg
Dermal: LD50/Rabbit = 1670 mg/kg
Dermal Sensitization: Guinea Pig: Strong Sensitizer
Skin Irritation: Rabbits: Severely irritating, corrosive
Eye Irritation: Rabbits: Corrosive

IRRITANT / SENSITIZATION EFFECTS: Very hazardous in case of eye contact (irritant, corrosive). Inflammation of the eye is characterized by redness, watering and itching. Very hazardous in case of skin contact (sensitizer). Hazardous in case of skin contact (corrosive, irritant). Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering. May be harmful if inhaled. Do not breathe spray mists of the undiluted product. Effects will depend upon solution strength and length of time of exposure.

CARCINOGENIC POTENTIAL: Mutagenicity testing and 52-week rat studies on the active ingredients show no evidence of carcinogenic effects.

TARGET ORGANS EFFECTS: May cause damage to the following organs: upper respiratory tract, skin, eyes.

OTHER HEALTH EFFECTS: Inhalation toxicity was conducted with the technical grade material under misting conditions with a 4-hour exposure under controlled misting conditions. Normal use of this product under non-misting conditions should not present an occupational hazard.

SECTION 12: ECOLOGICAL INFORMATION

LC50 = 0.011 mg/l 48 hours Daphnia magna

LC50 = 0.23 mg/l 96 hours Rainbow trout

This product contains 2.5% of each active ingredient, TCMTB and MTC. The following data was developed from tests conducted with a formulation containing 10% of each of the active ingredients. Additional information is available in the Toxicity Profiles of the individual actives.

SECTION 13: DISPOSAL CONSIDERATIONS

SPILL AND LEAK RESPONSE GUIDELINES:

Important: Before responding to a spill or leak of this product, review each section of this MSDS. Follow the recommendations given in the Handling Precautions sections. Check the Fire and Explosion Data section to determine if the use of non-sparking tools is merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of enclosed areas.

Emergency Response Assistance: Emergency technical assistance is available at any time from E-ZOIL by calling 800-633-8253 PERS .

Initially minimize area affected by the spill or leak. Block any potential routes to water systems (e.g., sewers, streams, lakes, etc.). Based on the product's toxicological and chemical properties, and on the size and location of the spill or leak, assess the impact on contaminated environments (e.g. water systems, ground, air equipment, etc.). There are no methods available to completely eliminate any toxicity this product may have on aquatic environments. Minimize adverse effects on these environments. E-ZOIL can be contacted for technical assistance. Determine if federal, state, and/or local release notification is required (see Regulatory Classifications section of this MSDS). Recover as much of the pure product as possible into appropriate containers. Later, determine if this recovered product can be used for its intended purpose. Address clean-up of contaminated environments. Spill or leak residuals may have to be collected and disposed of. Clay, soil, or commercially available absorbents may be used to recover any material that can not readily be recovered as pure product. Flushing residual material to an industrial sewer, if present at the site of a spill or leak incident, may be acceptable if authorized approval is obtained. If product and/or spill/leak residuals are flushed to an industrial sewer, insure that they do not come into contact with incompatible materials. Contact the person(s) responsible for the operation of your facility's industrial sewer system prior to intentionally flushing or pumping spills or leaks of this product to the industrial sewer.

DISPOSAL GUIDELINES:

NOTE: Follow federal, state, and local regulations governing the disposal of waste materials.

NEAT PRODUCT: Contact your E-ZOIL representative.

CONTAMINATED MATERIALS: Determine if waste containing this product can be handled by available industrial effluent system or other on-site waste management unit. If off-site management is required, contact a company experienced in industrial waste management. This product is not specifically listed in 40 CFR 261 as a Resource Conservation and Recovery Act (RCRA) hazardous waste. However, spill or leak residuals may meet the criteria of a characteristic hazardous waste under this Act. Check the characteristics of the material to be disposed of and/or the

physical and reactivity data given in this MSDS for the neat product.

CONTAINER DISPOSAL: Empty containers, as defined by appropriate sections of the RCRA, are not RCRA hazardous wastes. However, insure proper management of any residuals remaining in container.

SECTION 14: TRANSPORTATION INFORMATION

DOT SHIPPING INFORMATION:

UN2922 , CORROSIVE LIQUID, TOXIC, N.O.S., (2-(Thiocyanomethylthio)benzothiazole, Methylene bis(thiocyanate)) , Class 8, (6.1), P.G. III , (ERG Guide 154)

IMO/IMDG SHIPPING INFORMATION:

UN2922 , CORROSIVE LIQUID, TOXIC, N.O.S., (2-(Thiocyanomethylthio)benzothiazole, Methylene bis(thiocyanate)) , Class 8, (6.1), P.G. III , MARINE POLLUTANT (EmS No. F-A, S-B , ERG Guide 154, HazMat Code 4936015)

IATA SHIPPING INFORMATION:

UN2922 , CORROSIVE LIQUID, TOXIC, N.O.S., (2-(Thiocyanomethylthio)benzothiazole, Methylene bis(thiocyanate)) , Class 8, (6.1), P.G. III , (ERG Guide 154, ERG Code 8P)

Unless otherwise stated, the shipping information provided above applies only to non-bulk containers of this product. Proper shipping name and general shipping information may vary depending on packaging and mode of shipment. All products shipped from E-ZOIL locations have been properly packaged and labeled according to appropriate hazardous materials shipping regulations. If any alteration of packaging, product, or mode of transportation is further intended, different shipping information, including but not limited to proper shipping name, RQ designation, and labeling may apply. For further information pertaining to the shipping requirements for this product, contact E-ZOIL.

SECTION 15: REGULATORY INFORMATION

The following Regulations are known to apply to the use and disposal of this product. Additional Federal, State and Local regulations may also be applicable.

SARA (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SARA 302 Extremely Hazardous Substances List ...
No components of this product are listed.

SARA 312 Hazard Category ...
Fire Hazard, Immediate (Acute) Health Hazard

SARA 313 Toxic Chemicals List ...
This product contains the following toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372 :
Diethylene glycol monomethyl ether

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT)

No components of this product are present above the de minimus levels.

RCRA (RESOURCE CONSERVATION AND RECOVERY ACT) LISTED HAZARDOUS WASTE

No components of this product are listed.

CWA (CLEAN WATER ACT) LISTED SUBSTANCES

No components of this product are listed.

FDA (FOOD AND DRUG ADMINISTRATION)

This product is allowed under the following FDA (21 CFR) sections :176.300.

BUNDESINSTITUT FÜR RISIKOBEWERTUNG (BFR) (THE FEDERAL INSTITUTE FOR RISK ASSESSMENT)

Not available

TSCA (TOXIC SUBSTANCES CONTROL ACT) APPLICABILITY

All components may not be listed on the TSCA Inventory. Registered pesticides are exempt from the requirements of TSCA.

FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT)

This product is a registered pesticide. EPA Reg. No. 1448-171

HMIS/NPCA RATING...Health 3

Flammability 2

Reactivity 1

NFPA RATINGS.....Health 3

Flammability 2

Reactivity 1

STATE REGULATIONS

VARIOUS STATE RIGHT TO KNOW ACTS ...

Non-proprietary hazardous chemicals are listed in Section 2 of this MSDS. Should you require further information on specific proprietary or inert ingredients please contact E-ZOIL.

SECTION 16: OTHER INFORMATION

Prepared by:

E-ZOIL Products, Inc.

Date of Preparation:

January 1, 2012

Date of Last Revision:

January 1, 2015

SECTION 17: SATISFACTORY MATERIALS OF CONSTRUCTION

304 Stainless steel
316 Stainless steel Aluminum
5052 H34 Polyethylene -
crosslink Polyethylene - high
density Polyethylene - low
density Polypropylene
Rehau Tubing
Neoprene
Silicone rubber
6/6 Nylon Teflon
Pharmed Tubing
FRP
Norprene
Dow Sillastic Tube

NOTE: With respect to all other materials not listed above, user should be aware that use of such materials with this product may be hazardous and result in damages to such materials and other property and personal injuries. No data concerning such materials not listed above should be implied by the user.

SECTION 18: MISCELLANEOUS

Disclaimer of liability: The information in this MSDS is provided without any warranty, expressed or implied. The information was obtained from sources we believe reliable. We do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.