Material Safety Data Sheet

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Product Name: BIO/TEC 025
Chemical Family: Proprietary Mixture
Supplier: SOUTHWEST ENGINEERS
39478 Highway 190 East
Slidell, LA 70461
Telephone: (985) 643-1117
Fax: (985) 641-4509
Emergency Number: (800) 424-9300 - Chemtrec

HMIS NFPA Hazard Ratings:
Health = 3 4  0 = Least
Fire = 1 1  1 = Slight
Reactivity = 0 0  2 = Moderate

3. PHYSICAL DATA

Physical State: Solid at 20°C
Melting Point: 153.5 to 156.2
Boiling Point (°F): Not determined
Color: Off white
Odor Threshold: Not available
Odor: None
Specific Gravity: 1.63
pH: 6.2 (aqueous solution)
Vapor Pressure: 3.8 X 10e-3 Pa (at 25°C)
Water Solubility: Soluble in water up to 146 mg/l. Soluble in the following solvents: ethyl acetate, n-octanol, acetone, methanol, 1,2-dichloroethane, xylene. Slightly soluble in n-heptane.
4. HAZARDS IDENTIFICATION

Emergency Overview

DANGER! MAY BE FATAL IF INHALED. EXTREMELY IRRITATING TO EYES AND MAY CAUSE SEVERE DAMAGE INCLUDING BLINDNESS. MAY CAUSE IRRITATION OF THE MOUTH, THORORAT AND STOMACH. MAY BE HARMFUL IF SWALLOWED.

Hazard Overview
Target Organs: Respiratory System / Eyes / Gastrointestinal Tract
Primary Entry Routes: Inhalation. Eyes.
Acute Health Hazards: Extremely irritating to eyes and may cause severe damage including blindness. May cause irritation of the mouth, throat, and stomach
Chronic Health Hazards: Unknown

Signs and Symptoms of Overexposure
Eye Contact: Extremely irritating to eyes and may cause severe damage including blindness.
Skin Contact: Not a hazard under normal use conditions.
Ingestion: May be harmful if swallowed. May cause irritation of the mouth, throat and stomach.
Inhalation: May be fatal if inhaled. May irritate respiratory passages.

5. EMERGENCY & FIRST AID PROCEDURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
Skin Contact: Wash with soap and water.
Ingestion: Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation: If inhaled, remove to fresh air. If not breathing or if breathing is difficult, give artificial respiration or oxygen by trained personnel. Seek medical attention.

6. FIRE AND EXPLOSION HAZARD DATA

Flash Point (°F): >230
Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical
Unusual Fire/Explosion Hazards: Unknown
Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.
7. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Use appropriate protective equipment.

Procedure for Cleaning/Absorption: Scoop up and remove.

8. HANDLING AND STORAGE

Handling: Avoid breathing dust; if exposed to high dust concentration, leave area immediately. Do not get in eyes. Wash thoroughly with soap and water after handling.

Storage: Store in a cool, dry place out of direct sunlight. Isolate from other stored materials in an area equipped with a fire-control water sprinkling system. Keep containers tightly closed when not in use.

9. SAFE HANDLING & USE INFORMATION

Engineering Controls: Use in a well ventilated area.

Respiratory Protection: Use in a well ventilated area. Wear a NIOSH approved respirator appropriate for airborne exposure at the point of use.

Hand Protection: Use gloves as a standard industrial handling procedure.

Eye Protection: Chemical goggles; also wear a face shield if splashing hazard exists.

10. STABILITY & REACTIVITY DATA

Chemical Stability: Stable under normal conditions of handling, use and transportation.

Hazardous Polymerization: Will not occur

Conditions to Avoid: None anticipated

11. TOXICOLOGICAL INFORMATION

Toxicity Test:
- Acute Oral LD50 (mg/kg): 1153 (rat)
- Acute Dermal LD50 (mg/kg): >5000 (rat)
- Acute Inhalation LC50 (mg/l): 0.327 (4h) (rat)

Sensitization: Non-sensitizing to guinea pig skin.

Mutagenicity: Non-mutagenic (Bacterial Reverse Mutation Assay, Chromosomal Aberration Study, Unscheduled DNA Synthesis)

Carcinogenicity: Not carcinogenic in rats after daily administration for 2 years via the diet (up to 80 mg/kg/day).
11. TOXICOLOGICAL INFORMATION – con’t.

Teratogenicity: Does not cause reproductive or developmental toxicity or teratogenicity when administered orally to mice or rats.

Skin Irritation: Slightly irritating to rabbit skin.

Eye Irritation: Extremely irritating to rabbit eye.

Other Information: 4-Week Feeding Study: administered to rats via the diet at 60, 125 or 250 mg/kg/day for 4 weeks resulted in treatment-related effects at all doses. A NOEL was not established. 13-Week Oral Toxicity: given to rats by gavage for 5 days/week for 13 weeks at 20, 50 or 125 mg/kg/day with a NOEL of 20 mg/kg/day.

12. ECOLOGICAL INFORMATION

Biodegradability: Not determined.

Aquatic Toxicity:

Bluegill: 24, 48, 72 and 96 hour LC50's in Bluegill were >0.32, 0.23, 0.23 and 0.23ppm respectively.

Rainbow Trout: 24, 48, 72 and 96 hour LC50's in rainbow trout were >0.12, 0.097, 0.083 and 0.067 ppm respectively.

Daphnia magna: 48 hour LC50 in Daphnia magna was determined to be 0.645 ppm in a 48-hour static test without renewal of test media. In a chronic study, the 7-day, 14-day, and 21-day EC50's were 0.142, 0.136 and 0.133ppm respectively.

Bioconcentration: low potential for concentration in aquatic biota.

Avian Toxicity: was not toxic when ingested by quail or mallard ducks.

13. TRANSPORTATION INFORMATION

Land Transportation:

**DOT (Non-Bulk):**

DOT Shipping Name: TOXIC SOLIDS, ORGANIC, N.O.S. (3-iodo-2-propynyl butyl carbamate)

UN/NA Number: UN2811

Hazard Class: 6.1

Packing Group: II

DOT Marine Pollutant: This product has been determined to be a marine pollutant.

**DOT (Bulk):**

DOT Shipping Name: TOXIC SOLIDS, ORGANIC, N.O.S. (3-iodo-2-propynyl butyl carbamate)
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**Air Transportation (IATA):**
Proper Shipping Name: TOXIC SOLIDS, ORGANIC, N.O.S. (3-Iodo-2-propynyl butyl carbamate)

| **UN Number:** 2811                     |
| **Hazard Classification:** 6.1          |
| **Packing Group:** II                    |

**Sea Transportation (IMO):**
Proper Shipping Name: TOXIC SOLIDS, ORGANIC, N.O.S. (3-Iodo-2-propynyl butyl carbamate)

| **UN/ID Number:** 2811                  |
| **Hazard Classification:** 6.1          |
| **Packing Group:** II                    |
| **Marine Pollutant:** This product has been determined to be a marine pollutant. |

**TDG (Canada):**
Proper Shipping Name: TOXIC SOLIDS, ORGANIC, N.O.S. (3-Iodo-2-propynyl butyl carbamate)

| **UN Number:** 2811                     |
| **Hazard Class:** 6.1                   |
| **Packing Group:** II                    |
| **TDG Marine Pollutant:** This product has been determined to be a marine pollutant. |

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<th><strong>14. DISPOSAL CONSIDERATIONS</strong></th>
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<td><strong>Disposal of Waste Method:</strong> Federal, state and local disposal laws and regulations will determine the proper waste disposal/recycling/reclamation procedure. Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected.</td>
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14. DISPOSAL CONSIDERATIONS – con’t.

Components: Carbamic acid. butyl-, 3-iodo-2-propynyl ester (IPBC) 55406-53-6
RCRA Class- Listed.

15. REGULATORY INFORMATION

TSCA Inventory List - This product and/or its components is listed on TSCA.
California Proposition 65 None of the components of this product is listed on CALPROP.
Carcinogens & Reproductive Toxicity (CRT) List – This product is not for sale in Canada.

WHMIS Ingredient Disclosure List None of the components of this product is listed on WHMIS Ingredient Disclosure list.
Canada DSL Inventory List - This product and/or its components is listed on DSL.
Canada NDSL Inventory List - This product and/or its components is not listed on NDSL.

Japan Inventory of Existing & New Chemical Substances (ENCS) – This product and/or its components is listed on ENCS.

Australia Inventory of Chemical Substances (AICS) List – This product and/or its components is listed on AICS.
EU EINECS List - This product and/or its components is listed on EINECS.
EU ELINCS List - This product and/or its components is not listed on ELINCS.

Components: Carbamic acid. butyl-, 3-iodo-2-propynyl ester (IPBC) 55406-53-6

| EPCRA (SARA Title III) Section 313 Toxic Chemical Data - Deminimis concentration: | 1.0% |
| EPCRA (SARA Title III) Section 302 Extremely Hazardous Substance | |
| EPCRA (SARA Title III) Section 302 Extremely Hazardous Spill Data – Reportable Quantity | |
| EPCRA (SARA Title III) Section 302 Extremely Hazardous Substance Data – Threshold Planning Quantity: | |
| EPCRA (SARA Title III) Section 313 Toxic Chemical | Listed |
16. OTHER INFORMATION

The information herein is presented in good faith and believed to be correct as of the date hereof. However, Southwest Engineers makes no representation as to the completeness and accuracy thereof. Users must make their own determination as to the suitability of the product for their purposes prior to use.

No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature with respect to the product or to the information herein is made. Southwest Engineers shall in no event be responsible for any damages of whatsoever nature directly or indirectly resulting from the publication or use or reliance upon information contained herein.

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