

# MATERIAL SAFETY DATA SHEET

## SECTION I – IDENTIFICATION OF PRODUCT

### Trade Name: M-1 Advanced Mildewcide

CAS Registry Number: 55406-53-6; 25322-68-3

CAS Name: Carbamic acid, butyl-, 3-iodo-2-propynyl ester; Poly(oxy-1,2-ethanediyl),.alpha.-hydro-.omega.-hydroxy-

**EMERGENCY TELEPHONE NUMBERS:** 800-424-9300 CHEMTREC (transportation & spills)  
800-241-7439 PROSAR Center (human health)  
800-966-6175 D-Mand Better Products, LLC

**PRODUCT HAZARD RATING:** Health = 2, Flammability = 1, Reactivity = 0  
(Rating Legend: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Insignificant)

**D-Mand Better Products, LLC**  
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Alpharetta, GA 30005  
678-679-1978

Date Prepared: March 12, 2010  
Contact Person: Dennis Makowski

## SECTION II – HAZARDOUS INGREDIENT DATA

### Carbamic acid, butyl-, 3-iodo-2-propynyl ester 55406-53-6:

Weight % - 20

ACGIH Threshold Limit Values Data – Time Weighted Average (TWA): No TLV/TWA established

OSHA Specifically Regulated Substances Data – Time Weighted Average (TWA): No TLV/TWA established

**Statement of Hazardous Nature:** Harmful if inhaled. Causes moderate eye irritation. Causes moderate skin irritation.

## SECTION III – HAZARDS IDENTIFICATION

### Hazard Overview

**Target Organs:** Respiratory System/Eyes/Skin

**Primary Entry Routes:** Inhalation. Eyes. Dermal – skin.

**Acute Health Hazards:** Causes moderate skin irritation. Causes moderate eye irritation.

**Chronic Health Hazards:** Unknown

### Signs and Symptoms of Overexposure

**Eye Contact:** Causes moderate eye irritation.

**Skin Contact:** Causes moderate skin irritation.

**Ingestion:** Not a hazard under normal use conditions.

**Inhalation:** Harmful if inhaled.

## SECTION IV – FIRST AID MEASURES

### **EMERGENCY AND FIRST AID PROCEDURES**

**Skin Contact:** Immediately wash with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**Eye Contact:** Immediately flush with plenty of water for 15 – 20 minutes and get medical attention if irritation persists.

**Ingestion:** Sip 1 -2 glasses of water or milk and seek medical attention. Do not induce vomiting unless told by a poison control center or physician. Never give anything by mouth to an unconscious person.

**Inhalation:** Move to fresh air. If problem persists, call poison control center or physician. If not breathing or if breathing is difficult, give artificial respiration or oxygen by trained personnel.

## SECTION V – FIRE AND EXPLOSION HAZARD DATA

**NFPA Rating:** Health: 2 Flammability: 1 Reactivity: 0

**Flash Point:** >428 F°

**Extinguishing Media:** Water fog, Foam, Carbon Dioxide, Dry Chemical.

**Unusual Fire and Explosion Hazards:** Unknown

**Special Protective Equipment:** Fire fighters should wear full protective clothing, including self-contained breathing equipment.

**HMIS RATING:** Health: 2 Flammability: 1 Physical Hazard: 0

## SECTION VI – ACCIDENTAL RELEASE MEASURES

**Personal Precautionary Measures:** Use Appropriate protective equipment.

**Procedure for Cleaning/Absorption:** Contain spill with sand or other inert materials.

## SECTION VII – HANDLING AND STORAGE

**Handling:** Avoid contact with skin and eyes. Avoid breathing vapors.

**Storage:** Keep containers tightly closed when not in use. Store in a cool, dry place, out of direct sunlight.

## SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Use in a well ventilated area.

**Respiratory Protection:** Use in a well ventilated area.

**Hand Protection:** Avoid contact with skin.

**Eye Protection:** Wear a face shield if splashing hazard exists.

## SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point:** Not determined

**Vapor Pressure** 0.12 torr @ 125°F

**Color:** Pale Yellow

**Physical State:** Liquid at 20°C

**Solubility:** Miscible in hydrocarbon oils. Slightly soluble in water.

**Specific Gravity:** Not determined

**Odor:** Not determined

**pH:** Not Determined

**Melting Point/Freezing Point (°F):** NA

## SECTION X – STABILITY AND REACTIVITY

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

Hazardous Polymerization: Will not occur.

Conditions to avoid: None anticipated.

Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide. Iodine vapors.

## Section XI – TOXICOLOGICAL INFORMATION

### **Toxicity Test:**

**Acute Oral LD50 (mg/kg):** 2,389 (rat)

**Acute Dermal LD50 (mg/kg):** >5,000 (rat)

**Acute Inhalation LC50 (Mg/l):** 1.80 (4H) (rat)

**Sensitization:** Non-sensitizing to guinea pig skin.

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

**Carcinogenicity:** Not carcinogenic in rats after daily administration for 2 years via the diet. (IPBC)

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

**Skin Irritation:** Moderately irritating to rabbit skin.

**Eye Irritation:** Moderately irritating to rabbit eye.

**Other Information:** 4-week Feeding Study: administered to rats via the diet at 60,125,250 mg/kg/day for 4 weeks resulted in treatment-related effects at all doses. A NOEL was not established. (IPBC) 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. (IPBC)

The LC50 inhalation data listed above was obtained for product registration purposes only. Because of the product's very low vapor pressure, the test was done using an artificially generated aerosol. Since human exposure to an aerosol is highly unlikely, this data was not used to determine DOT classification.

## SECTION XII - ECOLOGICAL INFORMATION

**Biodegradability:** Not Determined

**Aquatic Toxicity:** 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.

Bluegill: 24, 48, 72 and 96 hour LC50's in Bluegill were >0.32, 0.23, 0.23 and 0.23 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 0.133 ppm respectively.

Bioconcentration: low potential for concentration in aquatic biota

Avian Toxicity: was not toxic when ingested by quail or mallard ducks (IPBC)

## SECTION XIII – DISPOSAL CONSIDERATIONS

**Disposal of Waste Method:** 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.

**Components:** Carbamic acid. Butyl-, 3-iodo-2-propynyl ester 55406-53-6  
RSRA Class – Listed.

## SECTION XIV – TRANSPORT INFORMATION

**Land Transportation:** DOT Shipping name: Not regulated in non-bulk shipments UN Number: None  
Hazard Class: None

**Air Transportation (IATA) and Sea Transportation (IMO):**

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (3-Iodo-2-propynyl butyl carbamate) UN Number: 3082 Hazard Class: 9 Packing Group III

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

## SECTION XV – REGULATORY INFORMATION

TSCA Inventory List: This product and/or its components is listed on TSCA.

California Proposition 65 Carcinogens & Reproductive Toxicity (CRT) List: None of the components of this product is listed on CALPROP.

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 component 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,

ELINCS: This product and/or its components is not listed on ELINCS.

Components: Carbamic acid, butyl, 3-iodo-2-propynyl ester 55406-53-6

EPCRA (SARA Title III) Section 313 Toxic Chemical Data – De minimis concentration: Listed

EPCRA (SARA Title III) Section 313 Toxic Chemical – Listed.

**Disclaimer of Liability:**

**The information provided in this MSDS is believed to be reliable and accurate. However, the information is provided without any warranty or guarantee, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control. We do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of the use of this information. The buyer assumes all responsibility of using and handling the product in accordance with the federal, state and local regulations.**