



## Material Safety Data Sheet

### SECTION 1: IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Product Name: Enviro Brom Tabs

Description: Water treatment antimicrobial solution.

Manufacturer: ENVIRO TECH CHEMICALS, Inc.  
500 Winmoore Way  
Modesto, CA 95358

Company's Informational Telephone: 209-581-9576

Company's Transportation Emergency: CHEMTREC US Toll Free 800-424-9300 / International 703-527-3887

### SECTION 2: HAZARDS IDENTIFICATION

NFPA 704M / HMIS Rating: 3/3 Health 0/0 Flammability 1/1 Hazards/Reactivity COR/Other

#### Emergency Overview:

WARNING: Causes irritation to skin and eyes. Do not get in eyes, on skin, or on clothing. Do not take internally. Keep container closed when not in use. Keep container away from heat and sunlight.

#### Potential Health Effects:

Primary Route (s) of Exposure: Eye, Skin

Eye Contact: Can cause acute burns and irritation. May cause pain disproportionate to the level of irritation to the eye.

Skin Contact: Can cause irritation of various degrees. Prolonged contact may cause severe skin irritation with discomfort.

Ingestion: Severe intestinal tract irritant. Do not induce vomiting. Low to moderate toxicity if swallowed in small quantities.

Inhalation: May cause irritation or discomfort to the respiratory tract (nose and throat) and lungs.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Our hazard evaluation has identified the following chemical ingredient(s). Consult Section 15 for the nature/limits of the hazard.

<u>Ingredients</u>	<u>CAS #</u>	<u>Approx. %</u>
2,2-dibromo-3-nitrilopropionamide	10222-01-2	95.6

### SECTION 4: FIRST AID MEASURES

Eyes: Flush with water for 15 minutes holding eyelids open. Call a physician.

Skin: Immediately flush with water for at least 15 minutes. For a large area contact, flood body under a shower. Call a physician.

Ingestion: Do not induce vomiting. Give water. Call a physician.

Inhalation: Remove to fresh air. Treat symptoms. Call a physician.

Note to Physicians: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

### SECTION 5: FIRE FIGHTING MEASURES

Flash Point: None (PMCC) ASTM D-93

Extinguishing Media: Water spray, carbon dioxide, foam, dry chemical

Unusual fire and Explosion Hazard: May combine with various metals (at decomposition) to form further mixtures of Br<sub>2</sub>, HBr and NO<sub>x</sub>.



## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

**Environmental precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

**Small Spill:** Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large Spill:** Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

For large indoor spills, evacuate employees and ventilate area. Those responsible for control and recovery should wear the protective equipment specified in Section 8.

## SECTION 7: HANDLING AND STORAGE

**Storage:** Keep container closed when not in use. Store in original container out of direct sunlight in a cool, dry, well-ventilated location, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**Handling:** Avoid contact with skin, eyes, and clothing. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. If during normal use the materials presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits:** These values are not promulgated, but are Enviro Tech's recommended levels.

<u>Ingredient</u>	<u>ACGIH-TLV</u>	<u>OSHA-PEL</u>	<u>NIOSH-REL</u>
2,2-Dibromo-3-nitropropionamide	2mg/m <sup>3</sup> (ceiling)	2mg/m <sup>3</sup> (ceiling)	2mg/m <sup>3</sup> (ceiling)

**Recommended monitoring procedures:** Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Respiratory Protections:** If it is possible to generate hazardous decomposition products, or vapors, or dusting, a NIOSH approved or equivalent respirator is recommended.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilations, a positive pressure, self contained breathing apparatus is recommended.

**Ventilation:** General ventilation is recommended. Local ventilation is recommended where dusting can occur.

**Protective Equipment:** Use impermeable gloves, boots, apron, and safety glasses or goggles. Suitable impermeable gloves include neoprene, nitrile, PVC, natural rubber, viton and butyl.

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove and thoroughly wash the affected area. Launder contaminated clothing before reuse.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form:	Solid (Tablets)
Color:	White/off white
Melting Point:	122 - 125°C (252 - 257°F)



Note: These physical properties are typical values for this product but are not absolute

#### SECTION 10: STABILITY AND REACTIVITY

Product is stable. Under normal conditions of storage and use, hazardous reactions will not occur.

Avoid contact with strong alkali or oxidizing materials, (i.e. sodium hydroxide) which can generate heat, splattering or boiling and the release of toxic fumes. Avoid contact with soft metals.

Avoid contact with strong oxidizers (i.e. peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, permanganates) which can generate heat, fires, explosions, and the release of toxic fumes.

Thermal Decomposition Products: In the event of combustion, nitrogen, bromine, hydrobromic acid vapors or gases may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

#### SECTION 11: TOXICOLOGICAL INFORMATION

**Toxicity Studies:** Toxicity studies have been completed on the active ingredient. The results are shown below:

Acute Oral Toxicity LD <sub>50</sub> (Albino Rats):	308 mg/kg
Acute Dermal Toxicity LD <sub>50</sub> (Albino Rats):	>2,000 mg/kg
Acute Inhalation Toxicity LC <sub>50</sub> (Rabbit):	0.32 mg/l (4 hrs)
Primary Skin Irritation Test (Albino Rabbits):	>2,000mg/kg
Primary Eye Irritation Test (Albino Rabbits):	No data (corrosive product)
NOEL:	5 mg/kg/day (13 weeks oral, rat)

#### SECTION 12: ECOLOGICAL CONSIDERATION

*Results below are based on the active product.*

##### Avian Data:

Acute oral LD <sub>50</sub> , quail	354 mg/kg
Subacute Dietary LC <sub>50</sub> (quail and duck)	>5,620 ppm

##### Aquatic Data:

96 Hour LC <sub>50</sub> , fish, mg/l	2.3 Rainbow trout, 3.4 Sheepshead minnow, 2.3 Bluegill, 0.72 Mysid shrimp, 0.37 eastern oyster
Invertebrate (D. magna), acute toxicity, EC <sub>50</sub>	0.86 mg/l (48 hr)

#### SECTION 13: DISPOSAL CONSIDERATION

Disposal: If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource and Recovery Act (RCRA) 40 CFR 261. It does not have the characteristics of Subpart C, nor is it listed under Subpart D.

#### SECTION 14: TRANSPORT INFORMATION

Proper shipping name/hazard class may vary by packaging, properties, and mode of transportation. Typical proper shipping names for this product are:

Road Transportation Modes (Domestic):	UN3077, Other regulated substances, solid, n.o.s. (2,2-dibromo-3-nitrilopropionamide), 9, PGIII – Marine Pollutant
Road Transportation Modes (International):	UN3077, Environmentally hazardous substance, n.o.s. (2,2,dibromo-3-nitrilopropionamide, 9, PGIII - Marine Pollutant



Air Transportation:	See IATA below.
Marine Transportation:	UN3077, Environmentally hazardous substance, n.o.s. (2,2,dibromo-3-nitropropionamide, 9, PGIII - Marine Pollutant
Packaging Group:	III
IMDG Page No:	ND
IATA Packing Instruction:	Same as marine transport (above)
IATA Cargo Aircraft Limit:	1.0 L
Flash Point:	None
Technical Name:	DBNPA
RQ LBS (Per Package):	N/A
RQ Components:	N/A

#### SECTION 15: REGULATORY INFORMATION

The following regulations apply to this product.

**USA:** This product is subject to registration under FIFRA. This product is listed in EPA's TSCA Inventory as (Acetamide, 2,2-dibromo-2-cyano-).

Yes Immediate (acute) health hazard

Yes Delayed (chronic) health hazard

No Fire hazard

**Canada:** Listed in NDSL

**Japan:** Listed in METI

**Australia:** Listed in AICS

**Korea:** Listed in ECL

**Germany:** Water endangering classes, (WGK): Class 3

Section 313 - List of Toxic Chemicals (40CFR 372): This product does contain ingredients on the list of Toxic Chemicals.

Toxic Substance Control act (TSCA): The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

Resource Conservation and Recovery Act (RCRA), 40CFR 261 Subpart C and D: Consult Section 13 for RCRA classification.

Federal Water Pollution Control Act, Clean Water Act, 40 CFR 401.15: N/A

#### State Regulations:

California Proposition 65: None of the chemicals on the current Proposition 65 list are known to be present in this product.

New Jersey: N/A

Pennsylvania: N/A

Michigan Critical Materials: This product does not contain substance (s) identified on this list.

State Right to Know Laws: N/A

#### SECTION 16: OTHER INFORMATION

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information.

N/A = Not Applicable

ND = None Detected

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