

**VERICHEM****MATERIAL
SAFETY DATA
SHEET****MATERIAL SAFETY DATA
SHEET**CAS NO: 52-51-7
DATE: 12/16/2004
SUPERSEDES: 01/07/2003**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: VERICIDE BRONOPOL
SYNONYMS: Bronopol
CHEMICAL FAMILY: Not Applicable
MOLECULAR FORMULA: C₃H₆BRNO₄
MOLECULAR WEIGHT: 200

VERICHEM, 3499 Grand Avenue, Pittsburgh, PA, USA, 15225 (412-331-7299,
8:30 am to 5:00 pm; 412-521-6393 24 hours).

EMERGENCY PHONE: For any emergency involving spill, leak, fire, exposure, or
accident call CHEMTREC: 1-800-424-9300.
Outside the USA and Canada call: 703-527-3887.

2. COMPOSITION/INFORMATION ON INGREDIENTS**REGULATED COMPONENTS**

COMPONENT	CAS NUMBER	PERCENT	WORKER EXPOSURE	REFERENCE
2-Bromo-2-Nitro-1,3- Propanediol	52-51-7	95.0 – 100.0	Not Established	

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

APPEARANCE AND ODOR: White crystals with a characteristic odor

EFFECTS OF OVEREXPOSURE:

HUMAN: Eye contact causes irritation. Dermal contact causes irritation. This material
is toxic by ingestion.

ENVIRONMENTAL: Toxic to Fish

4. **FIRST AID MEASURES (IN CASE OF CONTACT)**

IF IN EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Get medical attention. Remove contact lenses, if present, after the first 5 minute, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF INHALED: Move person to fresh air. If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. **FIRE FIGHTING MEASURES**

FLAMMABLE PROPERTIES

FLASH POINT: Not Available

FLAMMABLE LIMITS (% BY VOLUME): Not Available

AUTOIGNITION TEMPERATURE: Not Available

DECOMPOSITION TEMPERATURE: 140 °C

EXTINGUISHING MEDIA AND FIRE FIGHTING INSTRUCTION

Use water fog, water, waterspray, foam, CO₂ or dry chemical extinguishing media. Firefighters should be equipped with self-contained breathing apparatus and turn out gear. If product is heated above 140° C, the solid or solid residue from solutions decomposes exothermically, liberating toxic hydrogen bromide fumes and oxides of nitrogen, and wells up to give a tarry mass which burns readily.

If fire cannot be controlled and containers are heated, EVACUATE THE AREA!

6. **ACCIDENTAL RELEASE MEASURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

- Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices.
- See Section 8 for PPE recommendation.
- Dyke area to contain spill.
- Soak up pooled liquid with a suitable absorbent such as clay, sawdust kitty litter or fuller's earth. Sweep up the absorbed material and place into an appropriate chemical waste container for disposal. Generously cover contaminated area with slurry of common, powdered household laundry detergent and water. Using a stiff brush, work the slurry into cracks and crevices. Allow to stand for 2-3 minutes then flush with water. Repeat if necessary.
- Do not discharge unless in accordance with Federal, State and Local Regulations.

7. HANDLING AND STORAGE

Storage Requirements: Store away from incompatible materials. Store in original container separate from other pesticides, fertilizers, food and feed. Store in a cool dry place. Keep containers tightly closed when not in use.

8. PERSONAL PROTECTION

EYE PROTECTION REQUIREMENTS: Chemical goggles or side-shield safety glasses.

SKIN PROTECTION REQUIREMENTS: Gloves, coveralls, apron, and boots as necessary to prevent contact.

VENTILATION REQUIREMENTS: Use local exhaust to control dusts. Mechanical may be adequate.

RESPIRATOR REQUIREMENTS: If dusts are generated, wear an approved dust respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: White crystals with a characteristic odor
BOILING POINT: Not Available
EVAPORATION RATE: N/A
MELTING POINT: N/A
PERCENT VOLATILE (BY WEIGHT): N/A
pH: 4.5 - 7
SATURATION IN AIR (PERCENT BY VOLUME): N/A
SOLUBILITY IN WATER: Soluble
SPECIFIC GRAVITY: VAPOR DENSITY: Not Available
VAPOR PRESSURE: 0.066 pascals

10. STABILITY AND REACTIVITY

STABILITY/THERMAL (CONDITIONS TO AVOID): Stable Avoid Alkalies and Heat

HAZARDOUS DECOMPOSITION PRODUCTS: Formaldehyde, bromine, oxides of carbon, oxides of nitrogen

REACTIVITY: Incompatibilities: Amines, Metals, Strong Alkali. Hazardous polymerization will not occur. Corrosive to metal. Not an oxidizer.

11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

ORAL: Oral LD₅₀ (Rat) 254 mg/kg
DERMAL: Dermal LD₅₀ (Rat) 1600 mg/kg
INHALATION: N/A
EYE IRRITATION: Irritating (Rabbit)
SENSITIZATION: Sensitizer
SKIN IRRITATION: Irritating (Rabbit)

12. ECOLOGICAL INFORMATION**FISH FRESH WATER**

BLUEGILL: N/A
FATHEAD MINNOW: N/A
RAINBOW TROUT: Static 96 hr LC₅₀ – 41.2 mg/L
WILDLIFE:..... N/A

13. DISPOSAL CONSIDERATION

PROHIBITIONS: Do not contaminate water, food or feed by storage or disposal.
PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal Law. If waste cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
CONTAINER DISPOSAL: Dispose of in a licensed facility. Recommend crushing or other means to prevent unauthorized reuse.
WASTE DISPOSAL: Incinerate (assure that emissions comply with applicable regulations) or bury in a licensed facility in compliance with Federal, State, and Local Solid Waste Regulations. Do not discharge into waterways or sewer systems.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

	DOT Shipping Information	IMO Shipping Information	ICAO/IATA	TRANSPORT CANADA
Shipping Name	2-Bromo-2-Nitropropane-1,3-Diol		2-Bromo-2-Nitropropane-1,3-Diol	2-Bromo-2-Nitropropane-1,3-Diol
Hazard Class	4.1		4.1	4.1
Packing Group	III		III	III
Subsidiary Class				
UN/ID Number	UN3241		UN3241	UN3241
Transport Label Required	Yes		Yes	Yes
Packing Instructions Passenger Cargo				
Max. Net Quantity Passenger Cargo				
D.O.T. Hazardous Substances	Flammable Solid			
IMDG Page				

15. REGULATORY INFORMATION

INVENTORY INFORMATION

US TSCA: Yes

CANADA DSL:

EEC EINECS:

OTHER ENVIRONMENTAL INFORMATION

The following components are defined as toxic chemicals subject to reporting requirements of Section 313 of Title III and of 40 CFR 372 or subject to other EPA regulations.

PRODUCT CLASSIFICATION UNDER TILE III SECTION 313 OF SARA

ACUTE: ()
CHRONIC: ()
FIRE: ()
REACTIVE: ()
PRESSURE: ()

16. OTHER INFORMATION

NFPA HAZARD RATING (NATIONAL FIRE PROTECTION ASSOCIATION)

FIRE: 1
HEALTH: 2
REACTIVITY: 2

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