



**MATERIAL
SAFETY DATA
SHEET**

DBNPA DISPERSION

DATE: 01/22/2008

CAS NUMBER 10222-01-2

SUPERSEDES: 04-19-2007

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: DBNPA DISPERSION
SYNONYMS: HALOGENATED CYANOACETAMIDE
CHEMICAL FAMILY: 2,2-DIBROMO-3-NITRILOPROPIONAMIDE
EMPIRICAL FORMULA: C₃H₂ON₂BR₂
MOLECULAR WEIGHT: 242

VERICHEM, 3499 Grand Avenue, Pittsburgh, PA 15225 USA (412-331-7299, 8:30 am to 5:00 pm)
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
2,2-DIBROMO-3-NITRILOPROPIONAMIDE	10222-01-2	20	N/A	

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

APPEARANCE AND ODOR: Clear, light yellow to amber liquid with a disinfectant odor
EFFECTS OF OVEREXPOSURE: Corrosive. Causes severe eye burns. Harmful if swallowed.
Do not get in eyes, on skin, or on clothing.

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 OR CLOTHING: 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

FIRE HAZARD:

Not defined as flammable or combustible. In case of fire use water spray, alcohol foam, carbon dioxide, or dry chemicals. Exercise caution when fighting fires involving chemical substances. Respiratory protection is required. Burning will produce toxic fumes. The product may support combustion and decompose if in a fire and gives off toxic materials such as bromine gas, hydrogen bromide and nitrogen oxides. Vapors and products of combustion are irritating to the respiratory tract and may cause breathing difficulty and pulmonary edema.

EXTINGUISHING MEDIA AND FIRE FIGHTING INSTRUCTION

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Evacuate non-essential personnel from the fire area. Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Use standard fire-fighting techniques to extinguish fires involving this material. Use water spray, dry chemicals or carbon dioxide. Keep fire-exposed containers cool with a water spray to prevent rupture due to excessive heat. High-pressure water hose may spread product from broken containers increasing contamination or fire hazard. Contaminated buildings, areas and equipment must not be used until they are properly decontaminated.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Contain spill: Use absorbent material.

Small spills can be handled routinely. Use adequate ventilation and/or wear a NIOSH approved dust, mist and fume respirator to prevent inhalation exposure. Sweep up spilled material. Place sweepings in a chemical waste container for disposal. Generously cover contaminated area with absorbent material. Dike water for later disposal. Do not allow contaminated water to enter waterways.

7. HANDLING AND STORAGE

STORAGE: Containers should be stored in a cool, dry, well ventilated area away from flammable materials and sources of heat or flame. Heat of $> 40^{\circ}\text{C}$ will cause the dispersion to separate. Store away from foodstuffs or animal feed. Exercise due caution to prevent damage to or leakage from the container. Guard against water contamination to prevent decomposition.

Containers should not be opened until ready for use. It is recommended that the product not be used after 12 months from the date of manufacture.

8. PERSONAL PROTECTION

EYE PROTECTION REQUIREMENTS:

Chemical workers must wear safety glasses and face shield.

SKIN PROTECTION REQUIREMENTS:

Chemical resistant gloves, long sleeve shirts, long pants, socks and shoes.

VENTILATION REQUIREMENTS:

Local and general exhaust ventilation to control levels of exposure.

RESPIRATOR REQUIREMENTS:

Air purifying particulate/organic vapor cartridge respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:

Clear, light yellow to amber liquid with a disinfectant odor

BOILING POINT:

Decomposes $> 70^{\circ}\text{C}$

MELTING POINT:

N/A

VAPOR PRESSURE:

18.9 mmHg @ 25°C

SPECIFIC GRAVITY 25°C :

≈ 1.10

VAPOR DENSITY:

< 1 (water)

PERCENT VOLATILE (BY WEIGHT):

N/A

pH:

4 - 6

SATURATION IN AIR (PERCENT BY VOLUME):

Unknown

EVAPORATION RATE:

N/A

SOLUBILITY IN WATER:

$\sim 7.5\text{g}$ in 100g solution

10. STABILITY AND REACTIVITY

Stable at ambient temperatures and atmospheric pressure. However, may slowly decompose at temperatures greater than 40°C resulting in product separation.

11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

EYE IRRITATION: Prolonged exposure will cause irreversible eye damage.

SKIN IRRITATION: Prolonged exposure causes irreversible skin damage. Skin Absorption: LD₅₀, Rabbit > 2,000 mg/kg

ORAL TOXICITY: The acute oral LD₅₀ is expected to be approximately 800 mg/kg. DBNPA active has an oral LD₅₀ in rats of 308 mg/kg.

DERMAL TOXICITY: The acute dermal toxicity is expected to be >2000 mg/kg to rats. DBNPA active has a dermal toxicity of > 2000 mg/kg.

INHALATION TOXICITY: The LC₅₀ in rats is expected to be 0.5 to 2 mg/l (4 hours). DBNPA active has an LC₅₀ (4 hours) of 0.32 mg/l.

SENSITIZATION: Testing conducted on the active ingredient (guinea pigs) resulted in the material being classified a weak sensitizer.

SUB-CHRONIC TOXICITY: The active material was orally administered to rats for 13 weeks. The NOEL was 5 mg/kg/day.

GENETIC: Developmental: DBNPA is a developmental toxicant in rabbits. Effects included retarded ossification of several fetal skeletal elements. **Mutagenicity:** Negative in Ames, Chinese hamster ovaries (HGPRT) w/without activation and unscheduled DNA synthesis in rat hepatocytes. DBNPA showed a weak positive response for chromosomes aberrations in human lymphocytes with and without activation.

12. ECOLOGICAL INFORMATION

FISH AND WILDLIFE

AQUATIC: This material is toxic to fish. Do not contaminate water sources by cleaning equipment or disposing of wastes. The following tests were run using the active ingredient.

AQUATIC TOXICITY:	Rainbow trout (96-hour LC ₅₀):	2.3 mg/l (Active)
	Sheepshead minnow (96-hour LC ₅₀):	3.4 mg/l (Active)
	Bluegill sunfish (96-hour LC ₅₀):	2.3 mg/l (Active)
	Mysid shrimp (96-hour LC ₅₀):	0.72 mg/l (Active)
	Eastern oyster (96-hour LC ₅₀):	0.37 mg/l (Active)
	Daphnia magna (96-hour LC ₅₀):	0.86 mg/l (Active)
	AVIAN TOXICITY:	Bobwhite quail (acute oral LC ₅₀):
	Mallard duck (dietary LC ₅₀):	>5620 ppm (Active)
	Bobwhite quail (dietary LC ₅₀):	> 5620 ppm (Active)

13. DISPOSAL CONSIDERATION

Material that can not be used as directed on the product label or chemically reprocessed and empty containers must be disposed of according to any applicable regulations. NOTE: State and local regulations may be more stringent than federal.

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	Not restricted	Not restricted	Not restricted	Not restricted
Hazard Class	Not restricted	Not restricted	Not restricted	Not restricted
Packing Group	Not restricted	Not restricted	Not restricted	Not restricted
Subsidiary Class	Not restricted	Not restricted	Not restricted	Not restricted
UN/ID Number	Not restricted	Not restricted	Not restricted	Not restricted
Transport Label Required	Not restricted	Not restricted	Not restricted	Not restricted
Packing Instructions Passenger Cargo	Not restricted	Not restricted	Not restricted	Not restricted
Max. Net Quantity Passenger Cargo	Not restricted	Not restricted	Not restricted	Not restricted
DOT Hazardous Substances	Not restricted	Not restricted	Not restricted	Not restricted
IMDG Page	Not restricted	Not restricted	Not restricted	Not restricted

15. REGULATORY INFORMATION

INVENTORY INFORMATION

US TSCA: YES

CANADA DSL: YES

EEC EINECS: YES

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 (Part 372) or subject to other EPA regulations.

COMPONENT: 2,2-DIBROMO-3-NITRILOPROPIONAMIDE

CAS. NUMBER: 10222-01-2

PERCENT: 20%

TPQ (Pounds): N/A

RQ (Pounds): N/A

RCRA: Not Regulated

RSCA 12B: Not Regulated

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA:

ACUTE: YES

CHRONIC: YES

FIRE: NO

REACTIVE: NO

PRESSURE: NO

16. OTHER INFORMATION

NFPA HAZARD RATING (NATIONAL FIRE PROTECTION ASSOCIATION)

FIRE: 0

HEALTH: 2

REACTIVITY: 1

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