

Biosperse® 261T MICROBIOCIDE
® Registered Trademark, Ashland or its
subsidiaries
67529

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone number	1-800-ASHLAND (1-800-274-5263)
Product name	Biosperse® 261T MICROBIOCIDE	
	® Registered Trademark, Ashland or its subsidiaries	
Product code	67529	
Product Use Description	Biocidal product	

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: solid, white

DANGER PHYSICAL AND CHEMICAL HAZARDS Strong oxidizing agent. Do not mix with other chemicals. Mix only with water. Use clean, dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire and explosion. Contamination with moisture, organic matter and other chemicals will start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well-ventilated area. Flood area with large volumes of water. DANGER! CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE AND SKIN BURNS.

Potential Health Effects

Exposure routes

Inhalation, Skin contact, Eye Contact

Eye contact

Can cause permanent eye injury. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure the cornea and cause blindness. Contact with dilute solutions (0.1% or less) is not irritating to the eyes.

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Skin contact

Can cause permanent skin damage. Symptoms may include redness, burning, and swelling of skin, burns, and other skin damage. Contact with dilute solutions (0.1% or less) is not irritating to the skin.

Ingestion

Swallowing this material may be harmful or fatal.

Inhalation

This material is a dust or may produce dust. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Prolonged or repeated breathing of dust may result in progressive and permanent lung disease (fibrosis) which may cause death from respiratory and/or heart failure. Symptoms include coughing and difficult breathing which becomes worse with physical activity.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: irritation (nose, throat, airways)

Target Organs

No data

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

There are no data available for assessing risk to the fetus from maternal exposure to this material.

3. COMPOSITION/INFORMATION ON INGREDIENTS
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Hazardous Components	CAS-No.	Concentration
2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO-5,5-DIMETHYL-	16079-88-2	>=90-<=100%

4. FIRST AID MEASURES

Eyes

If material gets into the eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention. Do not remove the victim from water access for transport to a medical facility unless instructed to do so by qualified medical personnel. If possible, continue flushing the eye gently with water while transporting the victim.

Skin

Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and discard contaminated shoes.

Ingestion

Seek immediate medical attention. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water and give milk or water to drink. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Notes to physician

Hazards: No information available.

Treatment: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

5. FIRE-FIGHTING MEASURES

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Suitable extinguishing media

Water spray

Hazardous combustion products

Bromine, Chlorine, hydrogen bromide, hydrogen chloride

Precautions for fire-fighting

Substance is an oxidizer that will cause moderate increase in the burning rate of combustible materials with which it comes into contact. Dense smoke may be generated while burning. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

No data

Environmental precautions

No data

Methods for cleaning up

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Shovel material into containers. Thoroughly sweep area of spill to clean up any residual material. Keep spilled material dry. Do not allow water or other incompatible substances to come into contact with spilled material. Per good environmental management practices, prevent run-off to sewers, streams and other bodies of water. Stop spill at the source. Cover sewer grates and dike the spill. Absorb spilled material on to absorbents. Shovel materials into container. Close container tightly and dispose of properly. Scoop or vacuum transfer spilled product to clean containers for recovery. Sweep up unrecoverable product. Transfer sweepings, contaminated soil, and other materials to containers for disposal. Sweep up material for disposal or recovery.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Strong oxidizing agent. Mix only with water. Use clean, dry utensils and equipment. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire and explosion. Contamination with other chemicals may start a

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chemical reaction with generation of heat, hazardous gases and possible fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well-ventilated area. If necessary, flood with large volumes of water. Avoid creating and breathing dust. Use dustless systems for handling, storage, and clean up so that airborne dust does not exceed the PEL, if applicable. Use adequate ventilation and dust collection. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment.

Storage

Do not allow moisture or water contamination of product. Do not store in temperatures above 120 degrees F. Store in closed containers in a dry, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Eye protection

Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

Skin and body protection

Wear resistant gloves such as:

Neoprene

Discard gloves that show tears, pinholes, or signs of wear.

Wear appropriate chemical impervious clothing and boots whenever there is potential for skin contact with product. Launder clothing before reuse. Maintain safety shower at all locations where skin contact

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could occur. Contact your local safety equipment supplier to assist the facility in determining proper selection of personal protective equipment for the applications/operations present at your facility.

Respiratory protection

If overexposure has been determined or documented, a NIOSH-approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators under specified conditions. (See your safety equipment supplier.) Engineering or administrative controls should be implemented to reduce exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	solid
Form	tablet
Colour	white
Odour	slight chlorine
Boiling point/boiling range	212 °F / 100 °C @ 1,013.33 hPa Calculated Phase Transition Liquid/Gas
Melting point/range	no data available
Sublimation point	no data available
pH	3.5
Flash point	not applicable
Ignition temperature	no data available
Evaporation rate	(<)1 n-Butyl Acetate
Lower explosion limit/Upper explosion limit	no data available
Particle size	no data available
Vapour pressure	23.333 hPa @ 68 °F / 20 °C Calculated Vapor Pressure
Relative vapour density	(>)1 AIR=1
Density	1.8 g/cm ³
Bulk density	No data
Water solubility	negligible
Solubility	no data available
Partition coefficient: n-octanol/water	no data available
log Pow	no data available
Autoignition temperature	no data available
Viscosity, dynamic	no data available
Viscosity, kinematic	no data available

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Solids in Solution	no data available
Decomposition temperature	no data available
Burning number	no data available
Dust explosion constant	no data available
Minimum ignition energy	no data available

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

None known.

Incompatible products

Organic materials, Reducing agents

Hazardous decomposition products

Bromine, Chlorine, hydrogen bromide, hydrogen chloride

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO- : LD 50 Rat: 578 mg/kg
5,5-DIMETHYL-

Acute inhalation toxicity

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO- : LC 50 Rat: 1.11 mg/l; 4 h
5,5-DIMETHYL-

Acute dermal toxicity

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2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO- : LD 50
5,5-DIMETHYL- Rabbit:
(>) 2 g/kg

12. ECOLOGICAL INFORMATION

Biodegradability

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO- : no data available
5,5-DIMETHYL-

Bioaccumulation

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO- : no data available
5,5-DIMETHYL-

Ecotoxicity effects

Toxicity to fish : 96 h static test LC 50 Oncorhynchus mykiss (rainbow trout): 0.87 mg/l
: 96 h static test LC 50 Pimephales promelas (fathead minnow): 2.25 mg/l

Toxicity to daphnia and other aquatic invertebrates. : 48 h static test LC 50 Daphnia magna (Water flea): .48 mg/l

Toxicity to algae

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO- : no data available
5,5-DIMETHYL-

Toxicity to bacteria

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO- : no data available
5,5-DIMETHYL-

Biochemical Oxygen Demand (BOD)

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO- : no data available
5,5-DIMETHYL-

Chemical Oxygen Demand (COD)

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO- : no data available
5,5-DIMETHYL-

Additional ecological information

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO- : no data available
5,5-DIMETHYL-

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13. DISPOSAL CONSIDERATIONS**Waste disposal methods**

Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes 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. Do not contaminate water, food, or feed, by storage or disposal or cleaning of equipment. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction or fire. Do not reuse container. Rinse thoroughly before discarding in trash. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION**REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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U.S. DOT - ROAD

UN 1479	Oxidizing solid, n.o.s. (BROMO CHLORO DIMETHYLHYDANTOIN)	5.1		II	
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U.S. DOT - RAIL

UN 1479	Oxidizing solid, n.o.s. (BROMO CHLORO DIMETHYLHYDANTOIN)	5.1		II	
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U.S. DOT - INLAND WATERWAYS

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UN	1479	Oxidizing solid, n.o.s. (BROMO CHLORO DIMETHYLHYDANTOIN)	5.1	II
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TRANSPORT CANADA - ROAD

UN	1479	OXIDIZING SOLID, N.O.S. (BROMO CHLORO DIMETHYLHYDANTOIN)	5.1	II
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TRANSPORT CANADA - RAIL

UN	1479	OXIDIZING SOLID, N.O.S. (BROMO CHLORO DIMETHYLHYDANTOIN)	5.1	II
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TRANSPORT CANADA - INLAND WATERWAYS

UN	1479	OXIDIZING SOLID, N.O.S. (BROMO CHLORO DIMETHYLHYDANTOIN)	5.1	II
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INTERNATIONAL MARITIME DANGEROUS GOODS

UN	1479	OXIDIZING SOLID, N.O.S. (BROMO CHLORO DIMETHYLHYDANTOIN)	5.1	II
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	1479	Oxidizing solid, n.o.s. (BROMO CHLORO DIMETHYLHYDANTOIN)	5.1	II
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	1479	Oxidizing solid, n.o.s. (BROMO CHLORO DIMETHYLHYDANTOIN)	5.1	II
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MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	1479	SOLIDO COMBURENTE, N.E.P. (BROMO CHLORO DIMETHYLHYDANTOIN)	5.1	II
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*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION**California Prop. 65**

WARNING! This product contains a chemical known to the State of California to cause cancer.

BROMOFORM

SARA Hazard Classification

Acute Health Hazard

Fire Hazard

New Jersey RTK Label Information

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO-5,5-DIMETHYL-
WATER

16079-88-2
7732-18-5

CONTENTS PARTIALLY UNKNOWN

Pennsylvania RTK Label Information

2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO-5,5-DIMETHYL-
WATER

16079-88-2
7732-18-5

CONTENTS PARTIALLY UNKNOWN

Notification status

US. Toxic Substances Control Act

y (positive listing)

Australia. Industrial Chemical (Notification and Assessment)
Act

y (positive listing)

Canada. Canadian Environmental Protection Act (CEPA).

y (positive listing)

Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)

Japan. Kashin-Hou Law List

y (positive listing)

Korea. Toxic Chemical Control Law (TCCL) List

y (positive listing)

Philippines. The Toxic Substances and Hazardous and Nuclear
Waste Control Act

y (positive listing)

China. Inventory of Existing Chemical Substances

y (positive listing)

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	HMIS	NFPA
Health	3	3
Flammability	1	1
Physical hazards	1	
Instability		1
Specific Hazard	--	--

Biocides
23336

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).