

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
 Substance name : Smart Release Bio-Clear
 Product code : 000472

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Biocide

1.3. Details of the supplier of the safety data sheet

Dober Chemical Corp
 11230 Katherine's Crossing
 Suite 100
 Woodridge, IL 60517 - US
 T 630-410-7300 - F 630-410-7444
regulatory@dober.com - www.dober.com

1.4. Emergency telephone number

Emergency number : 1-800-255-3924 / 1-813-248-0585
 ChemTel

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 3 (Oral) H301
 Acute Tox. 2 (Inhalation) H330
 Acute Tox. 2 (Inhalation:dust,mist) H330
 Skin Corr. 1C H314
 Skin Sens. 1 H317
 STOT SE 3 H336

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

GHS06

GHS07

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H301 - Toxic if swallowed
 H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H330 - Fatal if inhaled
 H336 - May cause drowsiness or dizziness

Precautionary statements (GHS-US) :

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P272 - Contaminated work clothing must not be allowed out of the workplace
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P284 - [In case of inadequate ventilation] wear respiratory protection.
 P301+P310 - If swallowed: Immediately call a poison center or doctor
 P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
 P302+P352 - If on skin: Wash with plenty of water
 P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

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lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a poison center or doctor
P312 - Call a poison center or doctor if you feel unwell
P320 - Specific treatment is urgent (see supplemental first aid instruction on this label)
P321 - Specific treatment (see supplemental first aid instruction on this label)
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose in a safe manner in accordance with local/national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable.

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent
Name : Smart Release Bio-Clear

Name	Product identifier	%	GHS-US classification
2,2-Dibromo-3-nitropropionamide	(CAS-No.) 10222-01-2	>= 80	Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Corr. 1A, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT SE 3, H336 Aquatic Acute 1, H400
Propanediamide, 2,2-dibromo-	(CAS-No.) 73003-80-2	< 1	Not classified

Full text of H-phrases: see section 16

3.2. Mixtures

Not applicable

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well-ventilated place. Keep container closed when not in use.

Incompatible products : Strong bases. Oxidizing agent.

Incompatible materials : Sources of ignition. Direct sunlight. aluminum. copper. Copper alloys. mild steel.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Smart Release Bio-Clear	
ACGIH	Not applicable
OSHA	Not applicable
2,2-Dibromo-3-nitrilopropionamide (10222-01-2)	
ACGIH	Not applicable
OSHA	Not applicable
Propanediamide, 2,2-dibromo- (73003-80-2)	
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information : Do not eat, drink or smoke during use.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Color	: White to yellow
Odor	: Pungent
Odor threshold	: No data available
pH	: 6.9
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: 124.5 °C
Freezing point	: Not applicable to solids
Boiling point	: Decomposes before boiling
Flash point	: Not applicable to solids
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non-flammable (solid)
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.356
Solubility	: Water: 1.53 %
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong bases. amines. Strong oxidizing agents. Strong reducing agents. Avoid contact with : Light metals (Al, Zn).

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Inhalation:dust,mist: Fatal if inhaled.

Smart Release Bio-Clear	
LD50 oral rat	167 mg/kg female
LD50 dermal rabbit	> 2000 mg/kg No deaths occurred at this concentration.

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Smart Release Bio-Clear	
LC50 inhalation rat (mg/l)	0.24 mg/l/4h female. Vapors are unlikely produced due to physical properties. Prolonged excessive exposure to dust may cause serious adverse effects, even death. Excessive exposure may cause severe irritation to upper respiratory tract (nose and throat) and lungs. May cause severe pulmonary edema (fluid in the lungs). Prolonged and excessive exposure to fine dusts may cause lung injury. Study was conducted on dust aerosol by grinding the material to produce a fine respirable powder.
ATE US (oral)	167.000 mg/kg body weight
ATE US (gases)	100.000 ppmV/4h
ATE US (vapors)	0.240 mg/l/4h
ATE US (dust, mist)	0.240 mg/l/4h

2,2-Dibromo-3-nitrilopropionamide (10222-01-2)	
LD50 oral rat	235 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	0.32 mg/l/4h
ATE US (oral)	235.000 mg/kg body weight
ATE US (vapors)	0.320 mg/l/4h
ATE US (dust, mist)	0.320 mg/l/4h

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 6.9
Serious eye damage/irritation	: Not classified pH: 6.9
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause drowsiness or dizziness.
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life.

Smart Release Bio-Clear	
LC50 fish 1	1 mg/l Oncorhynchus mykiss (rainbow trout), 96 hour
EC50 Daphnia 1	0.6 mg/l Daphnia Magna (water flea), 48 hour
EC50 other aquatic organisms 1	3.1 mg/l activated sludge
ErC50 (algae)	0.5 mg/l Pseudokirchneriella subcapitata (green algae), 72 hour, growth rate inhibition
NOEC (chronic)	0.25 mg/l Daphnia magna (water flea), flow-through test, 21 d

2,2-Dibromo-3-nitrilopropionamide (10222-01-2)	
EC50 Daphnia 1	0.72 mg/l

12.2. Persistence and degradability

Smart Release Bio-Clear	
Chemical oxygen demand (COD)	0.26 mg/mg
ThOD	0.59 mg/mg

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

Smart Release Bio-Clear	
Mobility in soil	15 Estimated

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12.5. Other adverse effects

Effect on global warming : No known effects from this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

UN-No.(DOT) : UN2923

UN-No. (IMDG) : 2923

UN-No. (IATA) : 2923

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Corrosive solids, toxic, n.o.s.

(2,2-Dibromo-3-nitrilopropionamide)

Proper Shipping Name (IMDG) : CORROSIVE SOLID, TOXIC, N.O.S.
(2,2-Dibromo-3-nitrilopropionamide)

Proper Shipping Name (IATA) : Corrosive solid, toxic, n.o.s.
(2,2-Dibromo-3-nitrilopropionamide)

14.3. Transport hazard class(es)

Class (DOT) : 8 - Corrosive, 6.1 - Poison

Hazard labels (DOT) : 8, 6.1



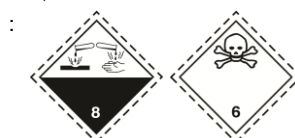
Transport hazard class(es) (IMDG) : 8 (6.1)

Hazard labels (IMDG) : 8, 6.1



Transport hazard class(es) (IATA) : 8 (6.1)

Hazard labels (IATA) : 8, 6.1



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14.4. Packing group

Packing group (DOT)	: III
Packing group (IMDG)	: III
Packing group (IATA)	: III

14.5. Environmental hazards

Marine pollutant(DOT)	: No
Marine pollutant(IMDG)	: Yes
Marine pollutant(IATA)	: Yes

SECTION 15: Regulatory information

15.1. US Federal regulations

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

EPA Registration Number: 464-389-10076

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER

Corrosive

Causes irreversible eye damage

May be fatal if inhaled or swallowed

Causes skin irritation

Harmful if absorbed through the skin

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This pesticide is toxic to fish and aquatic organisms.

15.2. International regulations

CANADA

2,2-Dibromo-3-nitropropionamide (10222-01-2)

Listed on the Canadian NDSL (Non-Domestic Substances List)

Propanediamide, 2,2-dibromo- (73003-80-2)

Listed on the Canadian NDSL (Non-Domestic Substances List)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date	: 07/18/2018
Other information	: None.

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Full text of H-phrases:

H301	Toxic if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H336	May cause drowsiness or dizziness
H400	Very toxic to aquatic life

NFPA health hazard

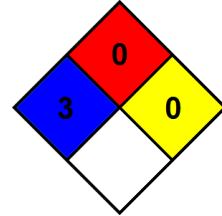
: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard

: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard

Physical : 0 Minimal Hazard

Personal protection : H

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