

SAFETY DATA SHEET

Revision Date: 06/14/2018

Print Date: 10/12/2020

SDS Number: 000000246766

Biosperse™ CN8059 MICROBIOCIDE

Version: 1.5

™ Trademark, Solenis or its subsidiaries or affiliates,
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845832

SECTION 1. IDENTIFICATION

Product identifier

Trade name : Biosperse™ CN8059

MICROBIOCIDE

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registered in various countries

Recommended use of the chemical and restrictions on use

Use of the Substance/Mixture : Biocide

Details of the supplier of the safety data sheet

Solenis LLC
500 Hercules Road
Wilmington, Delaware 19808
United States of America (USA)

RegulatoryRequestsNA@solenis.com
Solenis LLC

Emergency telephone number

1-844-SOLENIS (844-765-3647)

Product Information

Contact your local Solenis representative

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids : Category 4

Acute toxicity (Inhalation) : Category 4

Skin corrosion : Category 1

Serious eye damage : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H227 Combustible liquid.
H314 Causes severe skin burns and eye damage.
H332 Harmful if inhaled.

Precautionary statements : **Prevention:**

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P210 Keep away from heat/sparks/open flames/hot surfaces.

No smoking.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
ALKYL (C12-16) DIMETHYLBENZYL AMMONIUM CHLORIDE	68424-85-1	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Corr. 1; H314 Eye Dam. 1; H318	>= 5 - < 10
DODECYLGUANIDINE HYDROCHLORIDE	13590-97-1	Acute Tox. 4; H302 Acute Tox. 2; H330 Skin Corr. 1; H314 Eye Dam. 1; H318	>= 5 - < 10
ISOPROPANOL	67-63-0	Flam. Liq. 2; H225 Eye Irrit. 2A; H319	>= 1.5 - < 5

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		STOT SE 3; H336	
ALCOHOL	Trade Secret	Flam. Liq. 2; H225 Eye Irrit. 2A; H319	>= 1 - < 1.5

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
 Consult a physician.
 Show this safety data sheet to the doctor in attendance.
 Do not leave the victim unattended.
- If inhaled : Move to fresh air.
 IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
 Keep patient warm and at rest.
 If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : If on skin, rinse well with water.
 Wash contaminated clothing before re-use.
 If on clothes, remove clothes.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 Continue rinsing eyes during transport to hospital.
 Remove contact lenses.
 Protect unharmed eye.
- If swallowed : Get medical attention immediately.
 Do NOT induce vomiting.
 Rinse mouth with water.
 Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Administration of high doses of isopropanol in combination with known hepatotoxic chemicals resulted in enhanced liver toxicity in experimental animals.
 Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
 stomach or intestinal upset (nausea, vomiting, diarrhea)
 irritation (nose, throat, airways)
 confusion
 lung edema (fluid buildup in the lung tissue)
 Causes serious eye damage.
 Harmful if inhaled.
 Causes severe burns.
- Notes to physician : No hazards which require special first aid measures.

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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
 Water spray
 Foam
 Carbon dioxide (CO₂)
 Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release.
 Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon monoxide
 Carbon dioxide (CO₂)
 Nitrogen oxides (NO_x)
 May form:
 Ammonia
 hydrogen chloride
 formaldehyde-like
 Hydrocarbons
- Specific extinguishing methods : Product is compatible with standard fire-fighting agents.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
 Use a water spray to cool fully closed containers.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Remove all sources of ignition.
 Use personal protective equipment.
 Ensure adequate ventilation.
 Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
 Comply with all applicable federal, state, and local regulations.
 Suppress (knock down) gases/vapours/mists with a water spray jet.
- Environmental precautions : Prevent product from entering drains.

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Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform
respective authorities.

- Methods and materials for containment and cleaning up :
- Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
 - Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion :
- Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.
- No sparking tools should be used. Keep away from open flames, hot surfaces and sources of ignition.
- Advice on safe handling :
- Avoid formation of aerosol.
 - Provide sufficient air exchange and/or exhaust in work rooms.
 - Do not breathe vapours/dust.
 - Do not smoke.
 - Container hazardous when empty.
 - Avoid contact with skin and eyes.
 - Smoking, eating and drinking should be prohibited in the application area.
 - For personal protection see section 8.
 - Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage :
- Keep container tightly closed in a dry and well-ventilated place.
 - Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 - Observe label precautions.
 - No smoking.
 - Electrical installations / working materials must comply with the technological safety standards.
- Store in a cool, dry, ventilated area.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of	Control parameters /	Basis
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		(exposure)	Permissible concentration	
ISOPROPANOL	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m ³	NIOSH REL
		ST	500 ppm 1,225 mg/m ³	NIOSH REL
		TWA	400 ppm 980 mg/m ³	OSHA Z-1
		STEL	400 ppm 980 mg/m ³	OSHA P0
ALCOHOL	Trade Secret	STEL	500 ppm 1,225 mg/m ³	OSHA P0
		TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m ³	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m ³	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m ³	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
ISOPROPANOL		Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

Engineering measures

- : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection

- : A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

In the case of vapour formation use a respirator with an approved filter.

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Hand protection

- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Wear chemical splash goggles and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.
Maintain eye wash station in immediate work area.
- Skin and body protection : Wear resistant gloves (consult your safety equipment supplier).
Wear as appropriate:
Impervious clothing
Chemical resistant apron
Safety shoes
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Discard gloves that show tears, pinholes, or signs of wear.
- Hygiene measures : Wash hands before breaks and at the end of workday.
When using do not eat or drink.
Ensure that eyewash stations and safety showers are close to the workstation location.
When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Aqueous solution
- Colour : yellow
- Odour : mild
- Odour Threshold : No data available
- pH : 2 - 5
- Melting point/freezing point : ca. -2 °C
- Boiling point/boiling range : No data available
- Flash point : ca. 65 °C
- Evaporation rate : < 1
n-Butyl Acetate
- Flammability (solid, gas) : No data available
- Self-ignition : No data available
- Upper explosion limit : No data available

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Lower explosion limit	:	No data available
Vapour pressure	:	24 hPa
Relative vapour density	:	< 1
Relative density	:	No data available
Density	:	0.977 - 0.996 g/cm ³ (25 °C)
Solubility(ies)	:	
Water solubility	:	completely soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	
Viscosity, dynamic	:	11 - 25 mPa.s (21 °C)
Viscosity, kinematic	:	No data available
Oxidizing properties	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	Vapours may form explosive mixture with air.
Conditions to avoid	:	excessive heat Heat, flames and sparks.
Incompatible materials	:	Avoid contact with: Acids Aldehydes Alkali metals Amines Ammonia Bases Cyanides Ethylene oxide halogenated hydrocarbons halogens inorganic materials isocyanates

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Oxidizing agents
potassium hydroxide
sodium
sulfides

Do not use with aluminum equipment at temperatures above
49C or 120 degrees F.

Hazardous decomposition
products

: **Carbon monoxide**
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x)
May form:
Ammonia
Hydrogen chloride gas
Formaldehyde
Hydrocarbons

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if inhaled.

Product:

Acute oral toxicity : LD 50 (Rat): Expected > 2,000 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 3.78 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist
 Method: Calculation method

Acute dermal toxicity : LD 50 (Rabbit): Expected > 2,000 mg/kg

Components:

ALKYL (C12-16) DIMETHYLBENZYL AMMONIUM CHLORIDE:

Acute oral toxicity : LD 50 (Rat): 358 mg/kg

DODECYLGUANIDINE HYDROCHLORIDE:

Acute oral toxicity : LD50 (Rat, male and female): 1,456 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.2 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

ISOPROPANOL:

Acute oral toxicity : LD 50 (Rat): 5.84 g/kg

Acute inhalation toxicity : LC 50 (Rat): 16000 ppm

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Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD 50 (Rabbit): 12,800 mg/kg

ALCOHOL:

Acute oral toxicity : LD 50 (Rat): 7,060 mg/kg

Acute inhalation toxicity : LC 50 (Rat): 117 - 125 mg/l
Exposure time: 4 h
Test atmosphere: vapour

LC 50 (Mouse): 39 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD Lo (Rabbit): 20 g/kg

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks: Causes severe skin burns and eye damage.

Components:**ALKYL (C12-16) DIMETHYLBENZYL AMMONIUM CHLORIDE:**

Result: Corrosive

DODECYLGUANIDINE HYDROCHLORIDE:

Result: Corrosive to skin

ISOPROPANOL:

Result: Slightly irritating to skin

ALCOHOL:

Result: Slightly irritating to skin

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks: May cause irreversible eye damage.

Components:**ALKYL (C12-16) DIMETHYLBENZYL AMMONIUM CHLORIDE:**

Result: Corrosive to eyes

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DODECYLGUANIDINE HYDROCHLORIDE:

Result: Corrosive to eyes

ISOPROPANOL:

Result: Irritating to eyes

ALCOHOL:

Result: Irritating to eyes

Respiratory or skin sensitisation**Skin sensitisation**

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:**DODECYLGUANIDINE HYDROCHLORIDE:****Germ cell mutagenicity**

Not classified based on available information.

Components:**DODECYLGUANIDINE HYDROCHLORIDE:**

Genotoxicity in vitro : Test Type: Ames test

Species: *Salmonella typhimurium*

Result: negative

Carcinogenicity

Not classified based on available information.

IARC Group 1: Carcinogenic to humans

ethanol 64-17-5

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

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STOT - single exposure

Not classified based on available information.

Components:**ISOPROPANOL:**

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information**Product:**

Remarks: No data available

Components:**ISOPROPANOL:**

Remarks: Central nervous system

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:****Ecotoxicology Assessment**

Acute aquatic toxicity : Acute aquatic toxicity Category 1; Very toxic to aquatic life.

Chronic aquatic toxicity : Chronic aquatic toxicity Category 1; Very toxic to aquatic life with long lasting effects.

Components:**ALKYL (C12-16) DIMETHYLBENZYL AMMONIUM CHLORIDE:**

Toxicity to fish : LC 50 (Cyprinodon variegatus (sheepshead minnow)): 0.860 mg/l
Exposure time: 96 h
Test Type: flow-through test

LC 50 (Oncorhynchus mykiss (rainbow trout)): 0.923 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): 0.016 mg/l
Exposure time: 48 h
Test Type: static test

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M-Factor (Acute aquatic toxicity) : 10

DODECYLGUANIDINE HYDROCHLORIDE:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.57 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.0178 mg/l
Exposure time: 48 h

ISOPROPANOL:

Toxicity to fish : LC 50 (Fathead minnow (Pimephales promelas)): 5,770 - 7,450 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (Daphnia magna)): > 10,000 mg/l
Exposure time: 24 h
Test Type: static test

ALCOHOL:

Toxicity to fish : LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss)): 12,000 - 16,000 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): > 10,000 mg/l
Exposure time: 48 h
Test Type: static test

Persistence and degradability

Components:

ALKYL (C12-16) DIMETHYLBENZYL AMMONIUM CHLORIDE:

Biodegradability : Remarks: Readily biodegradable

DODECYLGUANIDINE HYDROCHLORIDE:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 70 %
Exposure time: 28 d
Method: OECD Test Guideline 301E

ISOPROPANOL:

Biodegradability : Result: Readily biodegradable.

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Bioaccumulative potential

Components:

ALKYL (C12-16) DIMETHYLBENZYL AMMONIUM CHLORIDE:

Bioaccumulation : Species: Bluegill (Lepomis macrochirus)
 Bioconcentration factor (BCF): 80.4
 Exposure time: 60 d
 Concentration: 0.25 mg/l
 Method: Flow through

Species: Bluegill (Lepomis macrochirus)
 Bioconcentration factor (BCF): 33.3
 Exposure time: 60 d
 Concentration: 0.25 mg/l
 Method: Flow through

ISOPROPANOL:

Partition coefficient: n-octanol/water : log Pow: 0.05

ALCOHOL:

Partition coefficient: n-octanol/water : log Pow: -0.31

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Components:

DODECYLGUANIDINE HYDROCHLORIDE:

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
 Do not contaminate ponds, waterways or ditches with chemical or used container.
 Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and

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federal regulations.

- Contaminated packaging : Empty remaining contents.
 Dispose of as unused product.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.
 Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION**International transport regulations****REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
UN 3265	Corrosive liquid, acidic, organic, n.o.s. (DODECYLGUANIDINE HYDROCHLORIDE, QUATERNARY AMMONIUM COMPOUNDS)	8		II	

IATA-DGR

UN 3265	Corrosive liquid, acidic, organic, n.o.s. (DODECYLGUANIDINE HYDROCHLORIDE, QUATERNARY AMMONIUM COMPOUNDS)	8	II	

IMDG-Code

UN 3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (DODECYLGUANIDINE HYDROCHLORIDE, QUATERNARY AMMONIUM COMPOUNDS)	8	II	MARINE POLLUTANT:(QUATERNARY AMMONIUM COMPOUNDS , BENZYL- C12-16- ALKYLDIMET HYL, CHLORIDES)

CFR

UN 3265	Corrosive liquid, acidic, organic, n.o.s. (DODECYLGUANIDINE HYDROCHLORIDE, QUATERNARY AMMONIUM COMPOUNDS)	8	II

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant	yes
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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.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
 Acute toxicity (any route of exposure)
 Skin corrosion or irritation
 Serious eye damage or eye irritation

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

ISOPROPANOL	67-63-0	2.4 %
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California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory
ENCS	: Not in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TCSI	: On the inventory, or in compliance with the inventory
TSCA	: On TSCA Inventory

Biocides

74655-12

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:

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Danger, Corrosive., Causes irreversible eye damage and skin burns., Do not get in eyes, on skin or on clothing., Harmful if swallowed or if inhaled, Avoid breathing dust, vapor or spray mist.

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION**Further information**

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Full text of H-Statements

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|------|--|
| H225 | : Highly flammable liquid and vapour. |
| H226 | : Flammable liquid and vapour. |
| H302 | : Harmful if swallowed. |
| H314 | : Causes severe skin burns and eye damage. |
| H318 | : Causes serious eye damage. |
| H319 | : Causes serious eye irritation. |
| H330 | : Fatal if inhaled. |
| H336 | : May cause drowsiness or dizziness. |

Full text of other abbreviations

- | | |
|------------|--|
| Acute Tox. | : Acute toxicity |
| Eye Dam. | : Serious eye damage |
| Eye Irrit. | : Eye irritation |
| Flam. Liq. | : Flammable liquids |
| Skin Corr. | : Skin corrosion |
| STOT SE | : Specific target organ toxicity - single exposure |

Further information

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 the Solenis Environmental Health and Safety Department.

Sources of key data used to compile the Safety Data Sheet

Key literature references and sources of data

SOLENIS Internal data

SOLENIS internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response,

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Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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