

Revision Date: 12/04/2014

Print Date: 3/19/2015

MSDS Number: R0700694

Version: 1.3

Spectrum[™] RX3510 Microbiocide Agent
[™] Trademark, Solenis or its subsidiaries or affiliates, registered
in various countries
419852

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

Solenis LLC 500 Hercules Road Wilmington, Delaware 19808	Contact us at Emergency telephone number	www.solenis.com 1-844-SOLENIS (844-765-3647) / 606-329-5705
Product name	Spectrum [™] RX3510 Microbiocide Agent [™] Trademark, Solenis or its subsidiaries or affiliates, registered in various countries	
Product code	419852	

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: solid, crystalline, white

WARNING! HARMFUL IF INHALED OR SWALLOWED. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN, CAUSE IRRITATION AND BURNS.

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Dust can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. May cause allergic skin reaction.

Ingestion

Swallowing this material may be harmful.

Inhalation

This material is a dust or may produce dust. Breathing this material may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

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

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Symptoms

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)

Target Organs

No data.

Carcinogenicity

Based on the available information, this material cannot be classified with regard to 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

Hazardous Components	CAS-No. / Trade Secret No.	Concentration
DAZOMET	533-74-4	<=100%

4. FIRST AID MEASURES**Eyes**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. 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.

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Notes to physician

Hazards: No information available.

Treatment: No information available.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Water spray

Hazardous combustion products

methyl isothiocyanate, Nitrogen oxides (NO_x), Sulphur oxides

Precautions for fire-fighting

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Avoid breathing dust.

Environmental precautions

Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Pick up and arrange disposal without creating dust.

Other information

Comply with all applicable federal, state, and local regulations.

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. Avoid dust formation.

Storage

Store in a cool, dry, ventilated area, away from incompatible substances. Keep from freezing.

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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.

Avoid breathing dust.

Exposure controls

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.

Eye protection

Wear safety glasses or chemical splash goggles when dust exposure is possible.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves (consult your safety equipment supplier).

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

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	solid
Form	crystalline, solid
Colour	white
Odour	slight, sulphurous
Melting point/range	216.0 - 221.9 °F / 102.2 - 105.5 °C
pH	No data available
Flash point	

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	Not applicable
Vapour pressure	0.000 hPa @ 68 °F / 20 °C
Density	0.0538 g/cm ³
Bulk density	538.220 kg/m ³
Decomposition temperature	> 60 °C

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

Keep away from heat, flame, sparks and other ignition sources.

Incompatible products

chlorine (in excess of 10 ppm in water solutions), metal salts, strong bases, strong mineral acids

Hazardous decomposition products

methyl isothiocyanate, Nitrogen oxides (NO_x), Sulphur oxides

Hazardous reactions

Product will not undergo hazardous polymerization.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
 Skin absorption
 Skin contact
 Eye Contact
 Ingestion

Product

Acute oral toxicity : LD 50Rat
 363 mg/kg

Acute inhalation toxicity : LC 50 Rat: 1.7 mg/l
 Exposure time: 4 h

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

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Skin corrosion/irritation : No data available

Serious eye damage/eye irritation : No data available

Respiratory or skin sensitisation : No data available

Components:

DAZOMET:

Acute oral toxicity : LD 50 Rat: 320 - 620 mg/kg

LD50 Rat, male: 596 mg/kg
Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)
GLP: no

LD50 : 415 mg/kg
Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)

Acute inhalation toxicity : LD 50 Rat, male and female: 8.4 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 Rat: > 2,000 mg/kg
GLP: yes
No adverse effect has been observed in acute dermal toxicity tests.

Respiratory or skin sensitisation : Species: Human
Classification: May cause sensitisation by skin contact.

Germ cell mutagenicity

Genotoxicity in vitro : Type: Ames test
Test species: Salmonella typhimurium
with and without metabolic activation
Result: negative
Method: Mutagenicity (Salmonella typhimurium - reverse
mutation assay)
GLP: yes

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- : Type: in vitro assay
Test species: Chinese hamster ovary cells
with and without metabolic activation
Result: Positive results were obtained in some in vitro tests.
- : Type: In vitro mammalian cell gene mutation test
Test species: mouse lymphoma cells
with and without metabolic activation
Result: Conflicting results have been seen in different studies.
- : Type: Chromosome aberration test in vitro
Test species: Human lymphocytes
with and without metabolic activation
Result: negative

Genotoxicity in vivo

- : Type: chromosome aberration assay
Test species: Rat, Bone marrow
Result: negative
- Type: In vivo micronucleus test
Test species: Mouse, Bone marrow
Result: negative
- Type: chromosome aberration assay
Test species: Chinese hamster
Result: negative

STOT - single exposure

- : Assessment: May cause respiratory irritation.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

- Toxicity to fish : LC 50 (Oncorhynchus mykiss (rainbow trout)): 16.2 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : LC 50 (Daphnia magna (Water flea)): 11.2 mg/l
Exposure time: 48 h

Components:

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DAZOMET:

- Toxicity to fish : LC 50 (Oncorhynchus mykiss (rainbow trout)): 0.16 mg/l
Exposure time: 96 h
Test Method: static test
- LC 50 (Lepomis macrochirus (Bluegill sunfish)): 0.46 - 1 mg/l
Exposure time: 96 h
Test Method: static test
- Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (Daphnia magna)): 0.3 mg/l
Exposure time: 48 h
Test Method: static test
Method: Directive 67/548/EEC, Annex V, C.2.
- Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.59 mg/l
Test Method: static test
- M-Factor : 1
- Toxicity to bacteria : EC10 (Pseudomonas putida): 1.8 mg/l
Exposure time: 17 h
- Toxicity to fish (Chronic toxicity) : NOEC: 0.005 mg/l
Exposure time: 28 d
Species: Oncorhynchus mykiss (rainbow trout)
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.0125 mg/l
Exposure time: 21 d
Reproduction Test
Species: Daphnia magna (Water flea)

Persistence and degradability

Product:

No data available

Components:

DAZOMET:

- Biodegradability : Biodegradation: > 60 %
Exposure time: 28 d
Method: OECD Test Guideline 302B
Inherently biodegradable

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Biodegradation: 58 %
 Exposure time: 28 d
 Method: OECD Test Guideline 301D
 Not readily biodegradable.

Stability in water : Degradation half life: 1 h (25 °C)
 pH: 7

Bioaccumulative potential
Product:

No data available

Components:
DAZOMET:

Partition coefficient: n- : log Pow: 0.3 (24 °C)
 octanol/water

Mobility in soil
Product:

No data available

Components:

No data available

13. DISPOSAL CONSIDERATIONS
Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations.

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 3077	Environmentally hazardous substance, solid, n.o.s. (DAZOMET)	9		III	
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U.S. DOT - RAIL

UN	3077	Environmentally hazardous substance, solid, n.o.s. (DAZOMET)	9	III
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U.S. DOT - INLAND WATERWAYS

UN	3077	Environmentally hazardous substance, solid, n.o.s. (DAZOMET)	9	III
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TRANSPORT CANADA - ROAD

UN	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DAZOMET)	9	III
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TRANSPORT CANADA - RAIL

UN	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DAZOMET)	9	III
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TRANSPORT CANADA - INLAND WATERWAYS

UN	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DAZOMET)	9	III
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INTERNATIONAL MARITIME DANGEROUS GOODS

UN	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DAZOMET)	9	III	MARINE POLLUTANT:(DAZOMET)
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	3077	Environmentally hazardous substance, solid, n.o.s. (DAZOMET)	9	III
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

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UN	3077	Environmentally hazardous substance, solid, n.o.s. (DAZOMET)	9	III
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MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	3077	SUSTANCIA SOLIDA POTENCIALMENTE PELIGROSA PARA EL MEDIO AMBIENTE, N.E.P. (DAZOMET)	9	III
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*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

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

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.	
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SARA Hazard Classification
SARA 311/312 Classification
 Acute Health Hazard

SARA 313 Component(s)

DAZOMET	100.00 %
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Notification status

US. Toxic Substances Control Act	y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	y (positive listing)
Japan. Kashin-Hou Law List	y (positive listing)
Korea. Toxic Chemical Control Law (TCCL) List	y (positive listing)

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Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	y (positive listing)
China. Inventory of Existing Chemical Substances	y (positive listing)

	HMIS	NFPA
Health	2	2
Flammability	0	0
Physical hazards	0	
Instability		0
Specific Hazard	--	--

Biocides

39967-101-74655

Solenis LLC

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 the Solenis Environmental Health and Safety Department.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

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OEL : Occupational Exposure Limit
P-Statement : Precautionary Statement
PBT : Persistent , Bioaccumulative and Toxic
PPE : Personal Protective Equipment
STEL : Short-term exposure limit
STOT : Specific Target Organ Toxicity
TLV : Threshold Limit Value
TWA : Time-weighted average
vPvB : Very Persistent and Very Bioaccumulative
WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
DOT : Department of Transportation
FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
HMIRC : Hazardous Materials Information Review Commission
HMIS : Hazardous Materials Identification System
NFPA : National Fire Protection Association
NIOSH : National Institute for Occupational Safety and Health
OSHA : Occupational Safety and Health Administration
PMRA : Health Canada Pest Management Regulatory Agency
RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System