

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

**1.1. Product identifier**

**Product name:** OSO 5% SC  
**EPA registration No.** 68173-4-70051  
**Product Type:** Suspension Concentrate  
**Active Ingredient:** Polyoxin D zinc salt  
**CAS No.:** 146659-78-1

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

**Identified uses:** Fungicide  
**Uses advised against:** All uses not listed on the label

**1.3. Details of the supplier of the safety data sheet**

**Distributor:** Certis U.S.A., LLC  
**Address:** 9145 Guilford Road, Suite 175  
Columbia, Maryland 21046  
U.S.A.  
**Phone Number:** +01 (800) 255-3924  
**Website:** <http://www.certisusa.com>

**1.4. Emergency telephone number**

**Emergency number:** +1 800 255-3924

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Hazard Classification:** Not classified as hazardous by OSHA  
**EPA Signal Word:** Caution\* (refer to section 15)  
**Hazard Statements:** None  
**Pictogram:** None  
**Precautionary Statements:** Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.  
  
For terrestrial uses. This product is moderately toxic to aquatic invertebrates and fish. To protect the environment do not allow pesticide to enter or runoff into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for

the next 24 hours will help ensure that wind and rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

**SECTION 3: Composition/information on ingredients**

**3.1 Substance**

Ingredient	CAS#	% by weight
Polyoxin D zinc salt	146659-78-1	5

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

- Generic measures** Call poison control center or doctor for treatment advice. Have the product container or label with you when you calling the poison control center or doctor or going for treatment.
- Eye Contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses after 5 minutes if present and continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Skin Contact:** 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.
- Inhalation:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth, if possible. Call poison control center or doctor for treatment advice.
- Ingestion:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by poison control center or doctor. Do not give anything to an unconscious person.

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

No symptoms

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

None known

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

- Suitable Extinguishing Media:** Dry chemicals
- Unsuitable Extinguishing Media:** water

**5.2. Special hazards arising from the substance or mixture**

Hazardous combustion products: None known

### **5.3. Advice for firefighters**

**Protection of Firefighters:** Keep upwind to avoid inhalation of gases, vapors and smoke.  
Wear chemical protective suit.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

**For emergency personnel:** Wear protective clothing as described in section 8 of this data sheet. Provide adequate ventilation.

### **6.2. Environmental precautions**

For terrestrial uses. This product is moderately toxic to aquatic invertebrates and fish. To protect the environment do not allow pesticide to enter or runoff into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help ensure that wind and rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

### **6.3. Methods and material for containment and cleaning up**

**Methods for Containment:** Do not use in a manner that would allow drift or rinse water from equipment cleaning to contaminate water sources or supplies.

**Methods for Clean-Up:** None specified

### **6.4. Reference to other sections**

Refer to Section 13 for disposal considerations.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

Provide adequate ventilation. Wear protective clothing as described in section 8 of this data sheet.

### **7.2. Conditions for safe storage, including any incompatibilities**

Keep in original container. Store in a dry, well ventilated place, away from direct sunlight and away from food or feed. Keep container tightly sealed when not in use. Do not store below 40°F (4°C).

**7.3. Specific end use(s):** Use only as specified on label.

## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

**OSHA Permissible Exposure Limits (PELs):** Not determined

**ACGIH Threshold Limit Values:** Not determined

**Other Exposure Limits:** Not determined

**8.2. Exposure controls**

**Engineering Controls:** None specified

**Personal Protective Equipment**

**Eye/Face Protection:** None specified

**Skin Protection** Long sleeved shirt and pants

**Hand Protection:** Chemical resistant gloves

**Body Protection:** Shoes and socks

**Respiratory Protection:** None specified

**Thermal Hazards:** None specified

**General Hygiene Considerations:** Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

**Environmental exposure controls:** For terrestrial uses. This product is moderately toxic to aquatic invertebrates and fish. To protect the environment do not allow pesticide to enter or runoff into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help ensure that wind and rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**Appearance:** Brown liquid with suspended solid

**Odour:** Similar to vegetable oil

**Odour Threshold:** Not determined

**pH: 1% dilution** 7.01 @ 25° C

**Melting Point / Freezing Point:** Not determined

**Initial Boiling Point:** Not determined

**Boiling Range:** Not determined

**Flash Point:** >232° C

**Evaporation Rate:** Not determined

**Flammability (solid, gas):** Not applicable

**Lower & Upper Flammability Limits:** Not applicable

**Vapour Pressure:** Not applicable

<b>Volatility by weight :</b>	Not volatile
<b>Density:</b>	1.05 g/ml @ 22° C
<b>Solubility:</b>	Not determined
<b>Partition Coefficient (n-octanol/water):</b>	Not determined
<b>Auto-ignition Temperature:</b>	Not determined
<b>Decomposition Temperature:</b>	Not determined
<b>Viscosity:</b>	Not available
<b>Explosive Properties:</b>	Not explosive
<b>Oxidising Properties:</b>	Stable to oxidation

#### SECTION 10: Stability and reactivity

<b><u>10.1. Reactivity</u></b>	None known
<b><u>10.2. Chemical stability</u></b>	Stable at ambient temperatures and when used as recommended.
<b><u>10.3. Possibility of hazardous reactions</u></b>	None known
<b><u>10.4. Conditions to avoid</u></b>	None known
<b><u>10.5. Incompatible materials</u></b>	None known
<b><u>10.6. Hazardous decomposition products</u></b>	None known

#### SECTION 11: Toxicological information

##### **11.1. Information on toxicological effects**

###### **Acute Toxicity**

###### **Toxicological information on the substance or mixture:**

<b>LD<sub>50</sub> (oral)</b>	> 5000 mg/kg, Oral, Rat
<b>LD<sub>50</sub> (dermal)</b>	> 5050 mg/kg, Dermal, Rat
<b>LC<sub>50</sub> (inhalation)</b>	> 2.20 mg/L, Inhalation, Rat

**Skin corrosion / irritation:** Not irritating, 48 hours

**Serious eye damage/ irritation** Not irritating

**Respiratory sensitization:** Not available.

**Skin sensitization:** Very faint erythema, usually nonconfluent, Guinea pig

**Germ cell mutagenicity:** Not available.

**Carcinogenicity:** Not established: IARC, NTP, EU, OSHA, ACGIH

**Reproductive toxicity:** Not available.  
**Specific target organ toxicity:** Not available.  
**Aspiration hazard:** Not available

**Polyoxin D Zinc Salt Technical**

**Germ cell mutagenicity:**

**Genotoxicity- in vitro:** Ames test: Negative  
**Genotoxicity- in vivo:** Micronucleus test (Mammalian erythrocyte): Negative

**Carcinogenicity:** No evidence of carcinogenicity and other adverse effects were observed at the highest dose tested. (Combined long-term toxicity and carcinogenicity test, 2 years)

**Reproductive toxicity:**

**Reproductive toxicity- fertility** No adverse effects were observed at the highest dosage tested (Two generation reproductive toxicity study)

**Reproductive toxicity, development** No effects for developmental toxicity were observed at highest dose tested. (Teratogenicity study)

**11.2 Reference to other sections**

See Section 4 for symptoms and acute and delayed effects.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity:** This product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

	<b>Polyoxin D Zinc Salt Technical</b>
<b>Acute toxicity- fish</b>	LC <sub>50</sub> , 96 hours: > 100 mg/l, Fish
<b>Acute toxicity- aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: 1.4 mg/l, Daphnia magna
<b>Acute toxicity- aquatic plants</b>	EbC <sub>50</sub> , 0-72 hours: 6.47 mg/l, Algae ErC <sub>50</sub> , 24-72 hours: 7.01 mg/l, Algae
<b>Acute toxicity- terrestrial</b>	Acute oral LD <sub>50</sub> , 96 hours: 28.774 µg/bee, Apis Mellifera (Honeybee) Acute contact LD <sub>50</sub> , 48 hours: >100 µg/bee, Apis Mellifera (Honeybee)

- 12.2. Persistence and degradability** This product is degraded by hydrolysis.
- 12.3. Bioaccumulative potential** No data available on bioaccumulation
- 12.4. Mobility in soil** No data available.
- 12.5. Other adverse effects** Not known.

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

**Disposal Instructions:** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local waste authority.

#### **EPA Label Disposal Instructions:**

Do not contaminate water, food, or feed by storage or disposal.

*Pesticide Storage:* Store in a dry place away from food or feed.

*Pesticide Disposal:* Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

*Container Handling:* Nonrefillable container. Do not use or refill this container. Completely empty container into application equipment. Triple rinse container (or equivalent), promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning (if available), or puncture and dispose of in a sanitary landfill or by incineration, if allowed by state and local authorities. If burned, stay out of the smoke.

### SECTION 14: Transportation information

This product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT)

Road transport notes: Not regulated

Rail transport notes: Not regulated

Sea transport notes: Not regulated

Air transport notes: Not regulated

#### **14.1. UN number**

Not applicable.

#### **14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

Not applicable.  
TMDG subsidiary risk  
ICAO subsidiary risk

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards**

Environmentally hazardous: No.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EPA:** This product is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticidal chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION, KEEP OUT OF REACH OF CHILDREN

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin and clothing.

Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Remove and wash contaminated clothing before reuse.

**US Federal Regulations**

**SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

None of the ingredients are listed or exempt.

**CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**

None of the ingredients are listed or exempt.

**SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

None of the ingredients are listed or exempt.

**CAA Accidental Release Prevention**

None of the ingredients are listed or exempt.

**Safety Assessments**

Safety assessments have been carried out by U.S. EPA (Reg. No. 68173-1,4,5)  
U.S. EPA has established a tolerance exemption of Polyoxin D zinc salt in or on all food commodities (40 CFR 180.1285)



**SECTION 16: Other information**

**Disclaimer:**

To the best of our knowledge, the information contained herein is accurate. However, neither Certis USA nor any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All material may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

**SDS Authoring Information:**

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**SDS Prepared by:** Certis U.S.A., LLC