**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY**

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| **Product Name:** | OzCrop Chlorothalonil 900 WG Fungicide |
| **Proper shipping name** | Environmentally hazardous substance, Liquid, N.O.S, (chlorothalonil) |
| **Relevant identified uses** | Agricultural Fungicide. |
| Details of the manufacturer or supplier of the safety data sheet | |
| **Supplier Name** | OzCrop Pty Ltd |
| **Supplier Address:** | 5.08, 12 Century Circuit Norwest NSW 2153 Australia |
| **Supplier Phone:** | +61 2 8123 0170 |
| **Supplier Fax:** | +61 2 8123 0171 |
| **Website** | http://www.ozcrop.com.au |
| **Email** | enquiries@ozcrop.com.au |
| Emergency telephone number | |
| **Association / Organisation** | In Transport Emergency DIAL 000 |
| **Emergency telephone**  **numbers** | 1800 033 111 (24 hours - Australia wide) |
| **Other emergency telephone**  **numbers** | Not Available |

**2. HAZARDS IDENTIFICATION**

Harmful if swallowed.

Causes eye irritation.

Keep away from food, drink and animal feeding stuffs. Very toxic to aquatic life with long lasting effects.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

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| Chlorothalonil | 90% |
| Other impurities | Up to 100% |

**4. FIRST - AID MEASURES**

**Inhalation:** No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

**Skin Contact:** Gently brush away excess solids. Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

**Eye Contact:** Quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

**5. FIRE FIGHTING MEASURES**

**Fire and Explosion Hazards**: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. This product, if scattered, may form flammable or explosive dust clouds in air.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Suitable extinguishing media are carbon dioxide, dry chemical, foam, water fog.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade. Do not scatter spilled material with high pressure water jets.

**Flash point:** No data

**Upper Flammability Limit:** No data. **Lower Flammability Limit:** No data. **Autoignition temperature:** No data. **Flammability Class:** No data.

**6. ACCIDENTAL RELEASE MEASURES**

**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask. Use a P1 mask, designed for use against mechanically generated particles eg silica & asbestos. Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

**7. HANDLING AND STORAGE**

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

**SWA Exposure Limits TWA (mg/m3) STEL (mg/m3)**

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

The ADI for Chlorothalonil is set at 0.01mg/kg/day. The corresponding NOEL is set at 1.5mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, April 2008.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

**Skin Protection:** The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, PVC.

**Respirator:** If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask. Otherwise, not normally necessary.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being used.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

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| **Physical Description & colour:** | White granules |
| **Odour:** | Mild but pungent odour. |
| **Water Solubility:** | Dispersible. |
| **Volatility:** | No data. |
| **Corrosivity:** | Non corrosive |

**10. STABILITY AND REACTIVITY**

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

**Incompatibilities:** strong acids, strong bases, strong oxidising agents.

**Fire Decomposition:** Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** This product will not undergo polymerisation reactions.

**11. TOXICOLOGICAL INFORMATION**

The below data is based on the toxicity of active ingredient:

Acute oral LD50 for rats >5000 mg/kg.

Skin and eye Acute percutaneous LD50 for albino rabbits and rats >5000 mg/kg. Light eye irritant;

mild skin irritant (rabbits). Evidence in humans of contact dermatitis with repeated exposure. Inhalation LC50 (1 h) for rats 0.52 mg/l air; (4 h) for rats 0.10 mg/l air.

**12. ECOLOGICAL INFORMATION**

Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment. This product is not readily biodegradable. However, likely to degrade slowly in the soil or water and not cause long term problems.

Birds Acute oral LD50 for bobwhite quail >2000 mg/kg b.w. Dietary LC50 (5 d) for mallard ducks and bobwhite quail >10 000 mg/kg diet.

Fish Acute LC50 (96 h, static) for rainbow trout 39, fathead minnow 23, bluegill sunfish 59 μg/l. Daphnia EC50 (48 h, static) 70 μg/l.

Algae EC50 (120 h) for Selenastrum capricornutum 210 μg/l; EC50 (72 h) for Navicula pelliculosa 5.1 μ;g/l. Bees LD50 for honeybees (oral) >63 μg/bee; (contact) >101 μg/bee.

Worms LC50 (14 d) for earthworms >404 mg/kg dry soil.

**13. DISPOSAL CONSIDERATIONS**

**Disposal:** Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 <http://www.chemclear.com.au/>and for help with the disposal of empty drums, contact DrumMuster <http://www.drummuster.com.au/>where you will find contact details for your area.

**14. TRANSPORT INFORMATION**

**ADG Code:** This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

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| **UN Number** | 3077 |

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| **Proper Shipping Name** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Chlorothalonil). |
| **Dangerous Goods Class** | 9 |
| **Hazchem Code** | 2Z |
| **Packing Group** | III |

# 15. OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.