

SAFETY DATA SHEET

According to HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1. Identification of the material and the supplier

Product: **Thalonil**
 Product Use: **Fungicide**
 Restriction of Use: Refer to Section 15

New Zealand Supplier: **Agrisource 2000 Ltd**
 Address: 45 Kitchener Road
 Pukekohe, Auckland

Telephone: +64 9 237 0422
Emergency No: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 21 July 2021

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No: HSR000670

Pictograms



Signal Word: **DANGER**

GHS Classification and Category	HSNO Classification	Hazard Code	Hazard Statement
Acute inhalation toxicity Cat. 2	6.1B (inh)	H330	Fatal if inhaled.
Skin sensitisation Cat. 1	6.5B	H317	May cause an allergic skin reaction.
Carcinogenicity Cat. 2	6.7B	H351	Suspected of causing cancer.
Specific target organ toxicity – repeated exposure Cat. 1	6.9A	H372	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage Cat. 1	8.3A	H318	Causes serious eye damage.
Hazardous to the aquatic environment chronic Cat. 1	9.1A	H410	Very toxic to aquatic life with long lasting effects.
Hazardous to soil organisms	9.2C	H423	Hazardous to soil organisms
Hazardous to terrestrial vertebrates	9.3B	H432	Hazardous to terrestrial vertebrates

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust, fumes, gas, mist, vapours or spray.
P264	Wash hands 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 should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.
P284	Wear respiratory protection.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Storage Code	Storage Statement
P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt	CAS NUMBER.
Chlorothalonil	72%	1897-45-6
Other ingredients	Balance	-

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
If on Skin	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
If Swallowed	Rinse the mouth, Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

If Inhaled Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms: Fatal if inhaled.
May cause an allergic skin reaction.
Suspected of causing cancer.
Causes damage to organs through prolonged or repeated exposure.
Causes serious eye damage.

Section 5. Fire Fighting Measures

Hazard Type	This product is non-flammable, non-explosive and is non-combustible.
Hazards from combustion products	Decomposition products in a fire are toxic and or irritant. Measures have to be taken to prevent the contaminated extinguishing agent from seeping into the ground or from spreading uncontrollably.
Suitable Extinguishing media	Dry chemical extinguisher, foam, carbon dioxide or fine-water spray. DO NOT use direct jet of water.
Precautions for firefighters and special protective clothing	Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke or gases.
HAZCHEM CODE	2X

Section 6. Accidental Release Measures

Avoid contact with skin and eyes. Do not inhale spray. Wear long sleeved shirt, long pants, waterproof gloves and safety goggles or face shield. Do not eat, drink or smoke when using. Wash hands and face before meals and after work.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

In the case of spillage, contain and absorb spilled material with absorbent material such as sand clay or cat litter. Keep out animals and unprotected persons. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with water. Dispose of drummed wastes in accordance with the requirements of Local Authorities. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local Authorities detailed in Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust, fumes, gas, mist, vapours or spray.
- When mixing or applying, avoid breathing dust and contact with skin and eyes.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.
- Wear respiratory protection.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed.
- Store in original container tightly closed and in a locked, dry, cool, well ventilated area, away from feed, seeds and foodstuffs.
- Store in accordance with the New Zealand Standard for the Management of Agrichemicals (NZS8409).

Section 8. Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2019 11TH EDITION.

Engineering Controls

Ensure ventilation is adequate, as product is used outdoors generally natural ventilation is adequate.

Personal Protection Equipment



Eyes	Wear chemical goggles or face shield.
Hands	Elbow-length and chemical resistant gloves.
Skin	When opening the container, preparing spray and using prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles.
Respiratory	Where insufficient ventilation is available, use suitable respiratory protection.
General	Females of childbearing age should not come into contact with the product. Avoid inhaling aerosols and vapours. Avoid contact with eyes and skin. Store work clothes and street clothes separately. Wash hand before breaks and at the end of work. Change contaminated protective clothing. Keep away from food, drinks and tobacco.

Section 9. Physical and Chemical Properties

Appearance	Liquid
Colour	Beige
Odour	Slightly pungent
Odour Threshold	Not available
pH	5 - 9
Boiling Point	> 100° C.
Melting Point	Not available
Freezing Point	Not available
Flash Point	does not flash
Flammability	Not available
Upper and Lower Explosive Limits	Not available

Vapour Pressure	Not available
Vapour Density	Not available
Density	Approx - 1.33
Solubility	Dispersible
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Octanol/Water Particle Coefficient	Not available

Section 10. Stability and Reactivity

Stability of Substance	Stable when stored in original container under normal conditions of storage and use.
Possibility of hazardous reactions	None expected.
Conditions to Avoid	Direct sunlight, extreme heat or Cold.
Incompatible Materials	None known.
Hazardous Decomposition Products	May include carbon dioxide; occasionally carbon monoxide, nitrogen oxide.

Section 11. Toxicological Information

Acute Effects:

Swallowed	Not applicable. LD ₅₀ > 10000 mg/kg (rat)
Dermal	Not applicable. LD ₅₀ > 2000 mg/kg (rat)
Inhalation	Fatal if inhaled. LC ₅₀ 0.52 mg/l air (1 h) - rat 0.10 mg/l air (4 h) - rat
Eye	Causes serious eye damage.
Skin	May cause an allergic skin reaction.

Chronic Effects:

Carcinogenicity	Suspected of causing cancer.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Causes damage to organs through prolonged or repeated exposure.

Section 12. Ecotoxicological Information

Very toxic to aquatic life with long lasting effects

Hazardous to soil organisms

Hazardous to terrestrial vertebrates

Toxicity to fish:	LC ₅₀ (96 h) 0,012 mg/l rainbow trout
Toxicity to daphnia:	LC ₅₀ (48 h) 0,06 mg/L, daphnia magna
Toxicity to algae:	EC ₅₀ (120 h) 0,12 mg/L, green algae
Toxicity to birds:	LD ₅₀ > 4.640 mg/kg, mallard duck
Toxicity to bees:	LD ₅₀ (oral) > 63 µg/bee LD ₅₀ (contact) > 101 µg/bee

Toxicity to earthworms:	LC ₅₀ (14 d) > 404 mg/kg
Breakdown in soil and groundwater:	Moderately persistent. The half-life in aerobic soils is between 1–3 months.
Breakdown in water:	About two third of Chlorothalonil will be degraded into two major metabolites (water at pH 9 – within 10 weeks)
Mobility:	The product has a low to slight mobility in soil.

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

Triple rinse container and add rinsate to spray tank. Dispose of cleaned container at your local AGRECOVERY container collection site. Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.



Precautions or methods to avoid: Avoid release to the environment.

Section 14. Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012



Road, Rail, Sea and Air Transport

UN No	2902
Class - Primary	6.1
Subclass	-
Packing Group	III
Proper Shipping Name	PESTICIDE, LIQUID, TOXIC, N.O.S. (chlorothalonil 72%)
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 1.5 Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: HSR000670

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	100L (aquatic Acute/Chronic Cat. 1)
Emergency Response Plan (Schedule 5)	100L (aquatic Acute/Chronic Cat. 1)
Secondary Containment (Schedule 5)	100L (aquatic Acute/Chronic Cat. 1)
Tracking (Schedule 26)	Yes, Any quantity (Acute inhalation toxicity Cat. 2)
Certified Handlers	Yes, Any quantity (Acute inhalation toxicity Cat. 2)
Location Certificate	250L (Acute inhalation toxicity Cat. 2)

HSNO Additional Controls (Restrictions of use)	
77A	The substance must not be applied onto or into water.
Hazardous Property Controls Notice 2017	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 2	Certain substances restricted to workplaces only.
HPC Notice Part 3	Hazardous substances in a place other than a workplace.
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances
HPC Notice Part 4 Subpart C	Qualifications required for application of class 9 pesticide.
ACVM Act and Regulations	
See www.foodsafety.govt.nz for registration Conditions	P8408

Section 16	Other Information
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Glossary

Cat	Category
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the Agrisource 2000 Ltd, if further information is required.

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