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APPLONIL 720 FUNGICIDE

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

| | |
|---|--|
| Product Identifier | Applonil 720 Fungicide |
| Active Constituent | 720g/L Chlorothalonil |
| Other means of Identification | Agricultural herbicide. GROUP Y FUNGICIDE Grow Choice product code number: 720 Fungicide 10 AVPMA registered number: 54196 |
| Recommended use of the chemical and restrictions on due | For the control of a wide range of annual and perennial broadleaf weeds, as specified in the Directions for Use Table |
| Suppliers name, address and phone number: | Grow Choice Pty Ltd 113 Fitzroy Street TAMWORTH NSW 2340 Phone: 02 6766 3979 1800 817 676 Fax: 02 6766 2922 Email: admin@growchoice.com.au |
| Emergency phone number: | In Case Of Emergency Dial 000 |
| Poisons Information Centre | Phone: 13 11 26 and speak to a Poisons Information Specialist. Fax: +61 2 9845 3597 http://www.chw.edu.au/poisons/contact.htm |

SECTION 2: HAZARDS IDENTIFICATION (continued on page 2)

- Classified as **HAZARDOUS** in accordance with the *Approved Criteria for Classifying Hazardous Substances* [NOHSC: 1008(2004) 3rd Edition] and the Globally Harmonized System of Classification and Labelling of Chemicals (the GHS).
- Considered **non-dangerous** for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)
- Considered **DANGEROUS** for transport by sea and air in accordance with the IMDG Code 37-14 (refer Section 14)

2.1 Classification of the hazardous chemical

| | | |
|-------------|--|-------------------|
| H317 | Sensitization, Skin | Category 1 |
| H318 | Danger Serious eye damage/eye irritation | Category 1 |
| H330 | Danger Acute toxicity, inhalation | Category 1 |
| H335 | Specific target organ toxicity, single exposure; Respiratory tract irritation | Category 3 |
| H351 | Carcinogenicity – | Category 2 |
| H400 | Hazardous to the aquatic environment, acute hazard - | Category 1 |
| H410 | Hazardous to the aquatic environment, long-term hazard - | Category 1 |

2.2 Label Elements

Signal Word **DANGER**

**GHS
Symbols**



Health Hazard



Corrosion



Skull and Cross bone



Exclamation Mar



Environment

**General
Precautionary
Statements.**

**If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use**

**Hazard
Statement
s**

- H317 May cause an allergic skin reaction**
H318 Causes serious eye damage
H330 Fatal if inhaled
H335 May cause respiratory irritation
H351 Suspected of causing cancer
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

**Precautionary Statements
Prevention**

- P201 Obtain special instructions before use.**
P202 Do not handle until all safety precautions have been read and understood.
P260+P261 Avoid and do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash face, arms, hands and any exposed skin thoroughly after handling.
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 gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim 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
P310 Immediately call a POISON CENTER or doctor/physician
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P321, Specific treatment: SEEK URGENT ATTENTION
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P403+P235+P233 Store in a well-ventilated place. Keep cool. Keep container tightly closed.
P405 Store locked up
P501 Dispose of contents and container in accordance with local, regional and national regulations.

Storage

Disposal

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

| Chemical ingredients: | Component | CAS No | Concentration % |
|--|------------------------------------|-----------------|-----------------|
| CAS number and other unique identifiers: | Chlorothalonil (ISO) | 1897-45-6 | 72% |
| Concentration of ingredients: | Other ingredients, including water | (non hazardous) | balance |

SECTION 4: FIRST AID MEASURES

In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: 13 11 26 and speak to a Poisons Information Specialist. Take this SDS and or DFU/Label with you or when calling the Poisons Information Centre.

Description of necessary first aid measures

Swallow If swallowed and if more than 15 minutes from a hospital DO NOT induce vomiting. Seek immediate medical advice,
Eye: If product gets in eyes, wash it out immediately with water for at least 15 minutes. . Seek medical attention.
Skin: Remove contaminated clothing and wash affected areas thoroughly with soap and water.
Inhaled Move affected person to fresh air and keep at rest until recovered. Seek urgent medical attention.

Symptoms caused by exposure

Inhalation: Fatal if inhaled. May cause respiratory irritation, increased secretion of mucous and headache.

Skin Contact: May cause skin irritation, itchiness and reddening of contacted skin. Skin sensitiser.

Eye Contact: May cause severe eye irritation, stinging, reddening, watering, swelling of eyelids and blurred vision.

Ingestion: May cause irritation of the mouth with extreme pain and reddening of skin.

Medical Attention and Special Treatment

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR if necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on the left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. /Poisons A and B/.

Basic treatment: Establish a patent airway (oropharyngeal or nasopharyngeal airway, if needed). Suction if necessary. Watch for signs of respiratory insufficiency and assist ventilations if needed. Administer oxygen by nonrebreather mask at 10 to 15 L/min. Monitor for pulmonary edema and treat if necessary. Monitor for shock and treat if necessary. Anticipate seizures and treat if necessary. For eye contamination, flush eyes immediately with water. Irrigate each eye continuously with 0.9% saline (NS) during transport. Do not use emetics. For ingestion, rinse mouth and administer 5 mL/kg up to 200 mL of water for dilution if the patient can swallow, has a strong gag reflex, and does not drool. Cover skin burns with dry sterile dressings after decontamination. /Poisons A and B/.

Advanced treatment: Consider orotracheal or nasotracheal intubation for airway control in the patient who is unconscious, has severe pulmonary edema, or is in severe respiratory distress. Positive-pressure ventilation techniques with a bag valve mask device may be beneficial. Consider drug therapy for pulmonary edema. Consider administering a beta agonist such as albuterol for severe bronchospasm. Monitor cardiac rhythm and treat arrhythmias as necessary. Start IV administration of D5W TKO /SRP: "To keep open", minimal flow rate/. Use 0.9% saline (NS) or lactated Ringer's (LR) if signs of hypovolemia are present. For hypotension with signs of hypovolemia, administer fluid cautiously. Watch for signs of fluid overload. Treat seizures with diazepam or lorazepam Use proparacaine hydrochloride to assist eye irrigation. Poisons A and B/.
(cited from: National Center for Biotechnology Information. PubChem Compound Database; CID=15910, <https://pubchem.ncbi.nlm.nih.gov/compound/15910> (accessed Jan. 27, 2017)).

SECTION 5: FIRE FIGHTING MEASURES (continued on page 4)

Suitable extinguishing media Water fog, fine water spray, foam, dry chemical, carbon dioxide.

Specific hazards arising from the chemical Hazardous combustion products include oxides of carbon and nitrogen, hydrogen chloride and phosgene. Non-combustible.

Special protective equipment and precautions for fire fighters

Hazchem Code

Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise, use water spray to cool them. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or other extinguishing agent and spillage safely later.

3Z

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

In case of spillage it is important to take all steps necessary to:

Avoid contact with the spilled material or contaminated surfaces. Extinguish or remove any sources of ignition. When dealing with spills do not eat, drink or smoke and wear protective clothing and equipment. Keep people and animals away. Prevent spilled material from entering drains or watercourses.

Environmental precautions

Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up

Reposition any leaking containers so as to minimise leakage. Dam and absorb spill with an absorbent material (eg sand or soil). Shovel the absorbed spill into drums

Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately.). Clean contaminated floors and objects thoroughly, observing environmental regulations. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

6.4 Reference to other sections

Information regarding safe handling see section 7.

Information regarding personal protective equipment see section 8.

Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe work practices are recommended.

Avoid contact with eyes and skin.

When opening the container and preparing spray wear appropriate PPE (refer Section 8).

Do not spray under high wind conditions.

Hygiene measures:

When using products, do not eat, drink or smoke.

Contaminated work clothing should not be allowed out of the workplace.

Wash hands thoroughly with soap and water after use and before eating, drinking, smoking/using tobacco, chewing gum, using the toilet or applying cosmetics.

After each day's use, wash gloves, face shield or goggles and contaminated clothing.

Avoid contact with eyes and skin.

Conditions for safe storage, including any incompatibilities

Keep out of reach of children, unauthorised persons and animals.

Store in tightly sealed original containers in a dry secure place away from fertilizers, feed and food.

Store out of direct sunlight and extreme temperature.

Always read the label and any attached leaflet before use.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION (continued on page 5)

Appropriate engineering controls

No special requirements. Product is used outdoors

Control process conditions to avoid contact. Use only in well-ventilated areas. If necessary, use local exhaust ventilation to keep airborne concentration below the exposure limits.

Personal protective equipment (PPE):

When opening the container, preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC chemical resistant and face shield or goggles.

When using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and optional once chemical is prepared for use, elbow length PVC chemical resistant and face shield or goggles if protected from spray drift/contamination.

Face and Eye Protection: Face shield or goggles.

Clothing: Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat.

Gloves: Elbow-length chemical resistant PVC gloves.

Respiratory: If airborne concentrations are likely to exceed the exposure standards above or if exposed to dust, an AS/NZS 1715/1716 approved respirator should be worn.

Recommended to use Australian and New Zealand Standard PPE:

Overalls AS 3765, Clothing for protection against Hazardous chemicals

Gloves: AS/NZS 2161, Industrial safety gloves and mittens (not electrical and medical gloves)

Goggles and face shield AS/NZS 1337, Eye protectors for industrial applications.

Footwear AS/NZS 2210, Occupational protective footwear

Respirators AS NZS 1715 Selection, Use and Maintenance of Respiratory

Protective Devices

AS/NZS 1716, Respiratory Protective Devices

Requirements Concerning Training

Check State and/or Territory regulations that require people who use pesticides in their job or business to have adequate training in the application of the materials.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---------------------------|
| Appearance: Form: | Liquid |
| Colour: | White, opaque |
| Odour: | No information available |
| Odour Threshold: | No information available |
| pH-Value: | No information available |
| Melting point/Melting range: | No information available |
| Initial Boiling Point/Boiling Range: | ~100 °C |
| Flash Point: | Not applicable |
| Flammability: | Product is not flammable. |
| Auto-ignition Temperature: | Not applicable |
| Decomposition Temperature: | No information available |
| Explosion Limits: Lower: | Not applicable |
| Upper: | Not applicable |
| Vapour Pressure at 25 °C: | 2.37 kPa (chlorothalonil) |
| Density: | No information available |
| Relative Density: | 1.354 |
| Vapour Density: | No information available |
| Evaporation Rate: | No information available |
| Solubility in Water | Disperses in water |
| Partition Coefficient (n-octanol/water) at 25 °C | 2.92 log POW |

SECTION 10: STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Direct sunlight.

Incompatible Materials: No information available

Hazardous Decomposition Products: Carbon dioxide, oxides of nitrogen, hydrogen chloride and phosgene.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity:

LD₅₀/LC₅₀ Values Relevant for Classification: 1897-45-6 Chlorothalonil (ISO)

Oral LD₅₀ >5000 mg/kg (rat)

Dermal LD₅₀ >5000 mg/kg (rat)

Inhalation LC₅₀/4 h 0.1 mg/l (rat)

Acute Health Effects

Inhalation: Fatal if inhaled. May cause respiratory irritation, increased secretion of mucous and headache.

Skin: May cause skin irritation, itchiness and reddening of contacted skin. Skin sensitiser.

Eye: Causes severe eye irritation, stinging, reddening, watering, swelling of eyelids and blurred vision.

Ingestion:

May cause irritation of the mouth with extreme pain and reddening of skin. Very high doses may cause a loss of muscle coordination, rapid breathing, nose bleeding, vomiting, hyperactivity, and death. Dermatitis, vaginal bleeding, bright yellow and/or bloody urine, and kidney tumours may also occur.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.

Serious Eye Damage / Irritation: Causes serious eye damage.

Respiratory or Skin Sensitisation: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity: Suspected of causing cancer.

Chlorothalonil is classified by IARC as Group 2B - Possibly carcinogenic to humans. Chlorothalonil is classified by Safe Work Australia as Carcinogen Category 3.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure: May cause respiratory irritation.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects:

Prolonged or repeated skin contact may cause skin sensitisation. Some individuals may become sensitive to contact with chlorothalonil.

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological information:

The Australian Acceptable Daily Intake (ADI) for chlorothalonil for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1.5 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing Office of Chemical Safety, 'ADI List', June 2014).

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Chlorothalonil is not toxic to birds or bees.

Aquatic toxicity: 1897-45-6 Chlorothalonil (ISO)

EC₅₀/120hr 210 µg/l (selenastrum capricornutum)

LC₅₀/48 h 70 µg/l (daphnia)

LC₅₀/96 h 0.043 mg/l (rainbow trout)

0.059 mg/l (bluegill)

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Persistence and Degradability:

Average field half-life of chlorothalonil is 7-30 days. In water, the half-life of chlorothalonil is 4.5 hours to 9 days. Chlorothalonil has high persistence in water/soil.

Bio accumulative Potential: The bioaccumulation potential of chlorothalonil is low.

Mobility in Soil: The mobility of chlorothalonil is medium.

Other adverse effects: No information available

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal of product

On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

Disposal of Container

Do not use this container for any other purpose. Triple rinse containers; add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non-returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

SECTION 14: TRANSPORT INFORMATION (continued on page 8)

General Transport Information

It is considered good practice not to transport agricultural chemical products with food, food related materials and animal feed products.

Land

Considered non-dangerous for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)

Sea and Air

Considered **DANGEROUS** for transport by sea and air in accordance with the IMDG Code 37-14

UN number

UN3082

| | |
|--|--|
| IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, |
| Proper Shipping Name | LIQUID, N.O.S. (Chlorothalonil (ISO)), MARINE |
| IMDG | POLLUTANT |
| Proper Shipping Name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, |
| IATA | LIQUID, N.O.S. (Chlorothalonil (ISO)) |
| Dangerous Goods Class | 9 Miscellaneous dangerous substances and articles. |
| Packing Group: | III |
| ADG, IMDG, IATA | |
| Marine pollutant: | Yes |
| | Symbol (fish and tree) |
| EMS Number: | F-A,S-F |
| Hazchem Code: | 3Z |
| Special Provisions: | 179, 274, 331, 335, AU01 |
| Limited Quantities: | 5L |
| Packagings & IBCs - Packing | P001, IBC03, LP01 |
| Instruction: | |
| Packagings & IBCs - Special | PP1 |
| Packing Provisions | |
| Portable Tanks & Bulk | T4 |
| Containers - Instructions | |
| Portable Tanks & Bulk | TP1, TP29 |
| Containers – Special | |
| Provisions: | |

Further information:

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not classified as Dangerous within the Australian Code for the Transport of Dangerous Goods (ADG). This applies when transported by road or rail in packs that do not incorporate a receptacle exceeding 500 kg(L) or IBCs per ADG Special Provision AU01.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

Australian Inventory of Chemical Substances:

| | |
|-----------|----------------------|
| 1897-45-6 | Chlorothalonil (ISO) |
|-----------|----------------------|

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:

Poisons Schedule: 6

SECTION 16: ANY OTHER RELEVANT INFORMATION

This Safety Data Sheet (SDS) was completed 27January 2017 AND REPLACES MSDS dated 06/10/10.

Acronyms:

AVPMA: Australian Pesticides and Veterinary Medicines Authority.
GHS: Globally Harmonised system of Classification and Labelling of chemicals
HSIS: Hazardous Substances Information System
NOHSC: National Occupational Health and Safety Commission
CAS No.: unique numerical identifier assigned by Chemical Abstracts Service (division of the American Chemical Society)
STEL Exposure standard - short term exposure limit.
AS/NZS: Australian Standards and New Zealand Standards for Personal protective equipment
ADI: Acceptable Daily Intakes For Agricultural And Veterinary Chemicals
ADG: Australian Dangerous Goods
IMDG: International Maritime Code of Dangerous Goods
IATA: International Air Transport Association

End of SDS

DISCLAIMER:

This SAFETY DATA SHEET has been developed according to the Work Health and Safety Regulations (WHS Regulations) Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals December 2011. The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof. The purpose of this SAFETY DATA SHEET is to describe product in terms of their safety requirements. Grow Choice Pty Ltd makes no representation of merchantability, fitness for a particular purpose of application, or of any other nature with respect to the information or the product to which the information refers ("the product"). The information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purpose prior to the use of the product. The physical data shown herein are typical values based on the material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof.

Due care should be taken to make sure that the use or disposal of this product and/or its packaging is in compliance with Relevant Federal, State and Local