

# UNIVERSAL CYROZINE 500 WDG

# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE

**Product name:** CYROZINE 500 WDG  
 Insecticide  
**UN No.:** 3077  
**Supplier:** Universal Crop Protection (Pty) Ltd.  
**Co. Reg. No.:** 1983/008184/07  
 PO Box 801,  
 Kempton Park, 1620, South Africa  
**Telephone:** (011) 396 2233  
**Fax:** (011) 396 4666  
**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)

### Emergency telephone numbers:

#### 24 Hr Transport / Spill emergency no:

Envirosure. +27 31 205 4918  
 (Hazcall24) +27 86 044 4411  
 (Client: Villa Crop Protection)  
 Griffon Poison Information Centre +27 82 446 8946  
 (Client: Villa Crop Protection)

### Poisoning Emergency telephone numbers:

Griffon Poison Information Centre +27 82 446 8946  
 Poisons Information Centre +27 861 555 777

### Villa Crop Protection Emergency number:

**National Safety, Health and Environmental Manager:**  
 +27 63 698 0668

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Common name:** Cyromazine  
**Chemical Name:** N-cyclopropyl-1, 3, 5-triazine-2, 4, 6-triamine (IUPAC)  
**CAS No.:** 66215-27-8  
**Chemical Family:** unknown  
**Chemical Formula:** C<sub>6</sub>H<sub>10</sub>N<sub>6</sub>  
**Molecular weight:** 166.2  
**Formulation:** **Cyromazine:** 500 g/kg  
 Water Dispersible Granule  
**Use:** Systemic insecticide with contact and stomach action. Insect growth inhibitor which interferes with moulting and pupation.  
**Hazardous Ingredient:** **Cyromazine**  
**SYMBOLS:** Xn  
**RISK-PHRASE(S):** R 20/22, R36/37/38

## 3. HAZARD IDENTIFICATION

**Toxicity class:** WHO (a.i.) III (Table 5)  
**Likely routes of exposure:** Skin and eye contact, ingestion and inhalation.  
**Eye contact:** Direct contact with the product may cause mild eye irritation.

**Skin contact:** Direct contact with the product may cause mild skin irritation. Not a skin sensitizer.

**Ingestion:** Harmful. Large ingestions can cause nausea, vomiting, abdominal distress and diarrhea.

**Inhalation:** Harmful. Inhalation of the dust may be irritating to the nose, throat and upper respiratory tract.

## 4. FIRST AID MEASURES AND PRECAUTIONS

**Inhalation:** Move the victim to fresh air or remove source of contamination. Monitor for respiratory distress. Seek medical attention if necessary.

**Skin contact:** Move the victim to fresh air and remove all contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with water and non-abrasive soap. Do not rub the skin. If irritation persists, seek medical advice. Persons who become sensitized may require specialized medical management. Wash contaminated clothing thoroughly.

**Eye contact:** Flush the eyes immediately with gently flowing lukewarm water for at least 20 minutes. Hold eye lids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on advice of a physician. If irritation persists, seek medical advice.

**Ingestion:** Seek medical advice immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person

**Advice to physician:** No specific antidotes are available. If a large amount of **Cyromazine** has been ingested and if copious vomiting has not already occurred, the stomach must be emptied and steps taken to limit gastrointestinal absorption. If the patient is fully alert and nervous system depression is not anticipated, oral administration of Syrup of Ipecac is probably the best way to empty the stomach.

**Caution:** Observe the victim closely after administering Ipecac. If consciousness level declines, or if vomiting has not occurred in 15 minutes, proceed to intubate, aspirate and lavage the stomach with isotonic saline or sodium bicarbonate solution.

Following emesis, have the victim drink a suspension of activated charcoal in water to limit toxicant absorption.

## 5. FIRE FIGHTING MEASURES

**Fire hazard and explosion hazard:** Not flammable. Avoid heat or flame. Slight dust explosion hazard when exposed to heat or flame.

**Extinguishing agents:** Extinguish fires with carbon dioxide, dry chemical or alcohol-resistant foam. Avoid water coming in contact with the product.

**Fire-fighting:** Fight fire from maximum distance or use unmanned hose holder or monitor nozzles. Remove container from fire area if possible and without risk. Dyke fire control water for later disposal.

# UNIVERSAL CYROZINE 500 WDG

# MATERIAL SAFETY DATA SHEET

Do not scatter the material. Avoid pollution of waterways. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapours. Keep upwind. Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

**Personal protective equipment:** Fire-fighters and others that may be exposed should wear full chemical protective clothing and self-contained breathing apparatus. See section 8 for recommendations regarding Exposure Controls/Personal Protection. Fire may produce irritating or poisonous vapours of combustion.

**Procedures:** Transfer spilled material to suitable containers for recovery or disposal. Keep dust to a minimum. Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Do not breathe in dusts or fumes. Ensure adequate ventilation. Avoid contact with skin and eyes. For personal protection see Section 8 and see section 4 regarding First Aid Measures when exposed to material during clean-up operations.

**Environmental precautions:** Do not allow entering of subsoil/ soil. Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

**Occupational spill:** Do not come into contact with spilled material. For small dry spills, sweep up with damp earth or sand or other suitable absorbent and taking care not to raise a dust cloud. Place the material into a clean, dry container and cover for subsequent disposal. All contaminated cleaning materials should be placed in closable receptacles with clear label. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Keep spectators away and upwind.

## 7. HANDLING AND STORAGE REQUIREMENTS

**Handling:** Wear appropriate protective equipment when handling the product. Do not handle material near food, feed or drinking water. Avoid contact with eyes, prolonged contact with skin, and inhalation of dust and vapour. Use with adequate ventilation to control dust and reduce exposure to vapours. Protect all equipment from explosions.

Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark.

Water used to clean equipment must be disposed of correctly to avoid contamination. Local regulations should be complied with.

**Storage:** Store the product in its original labeled container in cool, dry, well-ventilated area, away from heat, sparks and other sources of ignition. No smoking is allowed. Protect the product from temperatures below 0 °C and above 35 °C. Do not store next to food, feed and water supplies. Keep out of reach of unauthorized persons, children and animals. Avoid breaking the containers, spillage or leaks. Comply with the local regulations.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

Provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

### PERSONAL PROTECTIVE EQUIPMENT:

**Respirator:** Wear an approved full-face respirator suitable for protection from dusts and mists of pesticides is required. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

**Clothing:** Wear appropriate chemical-resistant protective clothing or other impervious clothing. Wear boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing. Wash clothing after use.

**Gloves:** Wear appropriate chemical-resistant protective gloves whenever the product is handled to prevent contact with this substance. Wash gloves after use.

**Eye protection:** Use safety goggles and face-shield which is compatible with respiratory equipment.

**Emergency eye wash:** Where there is any possibility that an employee's eyes may be exposed to this substance, an eye wash fountain or appropriate alternative within the immediate work area for emergency use, must be provided.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** White granules.

**Odour:** Odorless. **Flash point:** Not applicable.

**Flash point:** Not flammable

**pH:** 6.0 to 9.0. **Solubility in water:** Soluble

## 10. STABILITY AND REACTIVITY

**Stability:** Considered stable in unopened original packages, under normal, dry storage conditions.

**Conditions to avoid:** Excess heat

# UNIVERSAL CYROZINE 500 WDG

# MATERIAL SAFETY DATA SHEET

**Incompatibility:** Not compatible with **Endosulfan** and **Lufenuron**.

**Hazardous polymerization:** Product will not undergo polymerisation.

**Hazardous decomposition products:** Carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), ammonia.

## 11. TOXICOLOGICAL INFORMATION

**Acute oral LD<sub>50</sub>:** 3387 mg/kg in rats (Technical)

**Acute dermal LD<sub>50</sub>:** > 3100 mg/kg in rats

**Acute inhalation LC<sub>50</sub>:** Technical – 2,72 mg/ℓ in rats for 4 hours.

**Dermal sensitization:** Not a skin sensitizer in guinea pigs.

**Skin irritation:** Mild irritant

**Eye irritation:** Mild irritant

**Carcinogenicity:** No evidence of carcinogenicity was observed.

**Mutagenicity:** No evidence of mutagenicity was observed.

**Teratogenicity:** No evidence of teratogenicity was observed.

**Acceptable Daily Intake (ADI):** 0.02 mg/kg bw/day. (JMPR, 1990)

## 12. ECOLOGICAL INFORMATION

**Degradability:** In rats, **Cyromazine** is efficiently excreted, mainly as the parent compound.

**Cyromazine** is rapidly metabolized in plants. The principle metabolite is melamine.

Laboratory and field studies demonstrate that **Cyromazine** is efficiently degraded by biological mechanisms.

Degrades moderately to slowly in aerobic soil in the light. t<sub>50</sub> = 260 days. Degrades more rapidly under aerobic and anaerobic conditions in the dark. t<sub>50</sub> = 2 to 3 months.

**Mobility:** In soil and environment, **Cyromazine** and its main metabolite, melamine are classified as high to low mobile, depending on the type of soils. K<sub>oc</sub> = 79 to 1784.

**Bio-accumulation:** Negligible. BCF = <1X, whole fish.

### ECOTOXICOLOGY:

**Birds:** slightly toxic. LD<sub>50</sub>: Bobwhite quail: 1785 mg/kg. Japanese quail: 2338 mg/kg. Mallard duck: > 2510 mg/kg

**Fish:** slightly toxic

96 h LC<sub>50</sub>: Rainbow Trout: > 100 mg/ℓ  
 Bluegill sunfish: > 90 mg/ℓ  
 Carp: > 100 mg/ℓ

**Honeybees:** non-toxic to adult honeybees. No contact action up to 5 µg/bee.

**Daphnia:** LC<sub>50</sub> (48 h): > 9.1 mg/ℓ  
 Moderately toxic to aquatic invertebrates.

## 13. DISPOSAL CONSIDERATION

**Pesticide disposal:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. Do not contaminate rivers, dams or any other water sources with the product or used containers.

**Package product wastes:** Emptied containers retain vapour and product residues. Observe all labelled safeguards. Empty the container of excess product into the container of the applicator. Destroy the emptied containers by perforation and flattening. Bury in an approved dump site. Do not re-use the empty container for any other purpose.

## 14. TRANSPORT INFORMATION

**UN NUMBER:** 3077

**Road Transport ADR/IRD:**

Class: 9

Packing group: III

Shipping name: Environmentally hazardous substance, solid, n.o.s.  
**(Cyromazine 500 g/kg)**

## 15. REGULATORY INFORMATION

**Symbol:** Xn

**Indication of danger:** Harmful substance.

**Risk phrases:**

**R 20/22** Harmful by inhalation and if swallowed.

**R 36/37/38** Irritating to eyes, respiratory system and skin.

**R 52** Harmful to aquatic organisms

**Safety phrases:**

**S 1/2** Keep locked up and out of the reach of children.

**S 24/25** Avoid contact with skin and eyes.

**S 36//37/39** Wear suitable protective clothing, gloves and eye/face protection.

**S 61** Avoid release to the environment. Refer to safety data sheet.

## 16. OTHER INFORMATION:

**Packing and Labeling:** Packed in 50, 100, 200, 250, 500g, 1, 2, 5, & 10 Plastic containers & 3 ply paper labelled bags. Labelled according to South African regulations and guidelines.

**Disclaimer:** The information on this sheet is not a specification, it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage use of the product. It is not applicable to

## UNIVERSAL CYROZINE 500 WDG

## MATERIAL SAFETY DATA SHEET

unusual or non-standard uses of the product nor where instructions or recommendations are not followed.

All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

---

### **END OF DOCUMENT**

**Compiled:** February 2013

**Revised:** March 2019

**Revision no.:** (2)

**Next revision date:** March 2024

For detailed information on revisions, contact the Registration holder.