

# CURATOR ULV

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** CURATOR ULV  
**Other identifier:** Permethrin 50 ULV  
**Recommended use:** Insecticide  
**Restrictions on use:** Public Health

**Supplier:** Villa Crop Protection (Pty) Ltd.  
 PO Box 10413,  
 Aston Manor, 1630, South Africa

**Telephone:** (011) 396 2233  
**Fax:** (011) 396 4777  
**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. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
<b>Physical</b>		
Flammability	Flam. Liquid 4	H227
<b>Health</b>		
Oral		
Dermal	Skin Sens. 1	H317
Aspiration	Asp. Tox. 1	H304
Eye		
<b>Environment</b>		
Aquatic acute	Aquatic Acute 1	H400
Aquatic chronic	Aquatic Chronic 1	H410

**The most important adverse effects:**  
**Physiochemical effects:**  
 None known  
**Human health effects:**  
 May cause an allergic skin reaction.  
 May be fatal if swallowed and enters airways.  
**Label elements:**



**Signal word:** Danger

**Hazard statements:**

H227: Combustible liquid.  
 H304: May be fatal if swallowed and enters airways.  
 H317: May cause an allergic reaction.  
 H400: Very toxic to aquatic life.  
 H410: Very toxic to aquatic life with long lasting effects.

**Precautionary statements:**

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P273: Avoid release into the environment.  
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.  
 P301/310: IF SWALLOWED: Immediately call a POISON CENTER.  
 P302/352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.  
 P333/313: If skin irritation or rash occurs: Get medical advice.  
 P331: Do NOT induce vomiting.  
 P391: Collect spillage.  
 P405: Store locked up.  
 P501: Dispose of contents / container to suitable landfill in accordance with local regulations.

**Special labelling of certain mixtures:**

None known.

**Other hazards:**

None known.

**Toxicity:**

Classification according to GHS: Unclassified  
 Classification according to WHO: Category III  
 Classification according to GPIC: Category II

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture  
**Composition:**

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Permethrin	52645-53-1	5 %	Acute Tox. 4 (H302) Skin Sens. 1 (H317) Acute Tox. 4 (H332) Aquatic Acute 1 (H400) Aquatic chronic 1
Aliphatic hydrocarbon	64742-47-8	> 50 %	Asp. Tox. 1

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## 4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure.

Immediately consult a doctor.

**Inhalation:** Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.

**Skin:** Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists.

**Eyes:** Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate flushing of the chemical. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**

**Ingestion:** Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.

**Anticipated acute effects:** Can be fatal if swallowed and enters airways.

**Anticipated delayed effects:** None known.

**Most important symptoms/effects:** None known.

**Advice to physician:** Treat symptomatically and supportively. No specific antidote known.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.

**Unsuitable Extinguishing Media:** High volume water jet. Use a water jet only to cool heated containers.

**Specific hazards:** Permethrin decomposes in a fire to emit toxic fumes of Cl<sub>2</sub>.

**Special Fire Fighting Procedures:** Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.

**Personal protective equipment:** Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Avoid contact with eyes. Do not breathe in spray mist or dust/fumes/vapours. Ventilate area of spill or leak, especially in contained areas.

**Protective equipment:** Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

**Emergency procedures:** Alert firefighting personnel, evacuate unprotected personnel and animals.

**Environmental Precautions:** Prevent spilled product from entering sewers, waterways or ground water. This product is classified to be very toxic / toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water/Environmental Affairs.

**Methods and Materials for Containment:** Contain spilled product by diking area with sand or earth.

**Methods and Materials for Clean-up:** Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

## 7. HANDLING AND STORAGE

### Handling:

**Precautions for safe handling:** Harmful if swallowed. Avoid contact with skin and eyes. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

**General occupational hygiene:** Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used.

### Storage:

**Conditions for safe storage:** Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed, in an isolated, dry, cool and well-ventilated area. Do not store near heat, open flame, sources of ignition or hot surfaces. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

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**Incompatible substances and mixtures:** Refer to product label.

**Packaging material:** Fluorinated HDPE containers

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Permissible concentration:** No occupational exposure limits have been determined for the significant ingredients in this product.

### Engineering Controls:

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

### Personal Protective Equipment:

**Respiratory Protection:** For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved air-purifying respirator with cartridges/canisters approved for organic vapours.

**Hand Protection:** The use of chemically protective (impervious) gloves is recommended to prevent against skin contact.

**Eye Protection:** The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

**Skin and Body Protection:** Employee must wear appropriate protective clothing; boots, hat and equipment to prevent repeated or prolonged skin contact with this substance.

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Yellow liquid, homogenous, transparent.

**Odour:** Slight chemical odour.

**pH (undiluted):** 4.0 – 4.7 (20 ± 1°C)

**Melting point:** Not available.

**Freezing Point:** Not available.

**Boiling Point:** Not available.

**Flash Point:** ± 77 °C

**Flammability:** Combustible liquid.

**Upper/lower explosion limits:** Not available.

**Vapour Pressure (mm Hg):** Not available.

**Relative Vapour Density:** Not available.

**Density/Relative density:** 0.8286 g/ml (20 ± 1°C).

**Solubility:** Not available.

**n-octanol/water partition coefficient:** Not available.

**Auto-ignition temperature:** Not available.

**Decomposition temperature:** Not available.

**Viscosity:** 4.26 mPa.s (20 °C, speed 100 rpm)

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50 °C, preferably below 30 °C, and not for prolonged periods in direct sunlight.

**Reactivity:** None known.

**Possibility of Hazardous Reactions:** Will not occur.

**Conditions to Avoid:** Extreme heat or exposure to flames.

**Incompatible Materials:** Strong oxidizers, strong bases, strong reducing agents. Mixing with calcium nitrate not recommended.

**Hazardous Decomposition Products:** Alcohols. Carbon monoxide and carbon dioxide may form under burning conditions or with incomplete combustion.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY:

**Calculated according to GHS**

**Oral LD<sub>50</sub> rat > 6 615 mg/kg**

**Dermal LD<sub>50</sub> rat > 38 461 mg/kg**

**Inhalation LC<sub>50</sub> rat > 10 mg/l**

**Skin Irritation/Corrosion:** Not available.

**Eye Damage/Irritation:** Not available.

**Skin Sensitization:** May cause an allergic skin reaction.

**Respiratory Sensitization:** Now available.

**Reproductive cell mutagenicity:** Not available.

**Carcinogenicity:** Not available.

**Reproductive toxicity:** Not available.

**Specific target organ toxicity – single exposure:** Not available.

**Specific target organ toxicity – repeated exposure:** Not available.

**Aspiration hazard:** May be fatal if swallowed and enters airways.

**Chronic Effects** (other targets e.g. developmental): Not available.

### POTENTIAL ADVERSE EFFECTS:

**Inhalation:** Not available

**Skin contact:** Not available

**Eye contact:** Not available

**Ingestion:** Not available

## 12. ECOLOGICAL INFORMATION

This product is considered a marine pollutant.

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## ECOTOXICITY DATA:

**Fish:**

LC <sub>50</sub>	Rainbow trout (96 h)	2.5 µg/l.
	Rainbow trout (48 h)	5.4 µg/l
	Bluegill sunfish (48 h)	1.8 µg/l.

**Daphnia:**

EC <sub>50</sub> (48 h)		0.6 µg/l.
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**Birds:**

Acute oral LD <sub>50</sub>	Chickens	>3000 mg/kg
	Mallard ducks	>9800 mg/kg
	Japanese quail	>13500 mg/kg

**Bees:**

LD <sub>50</sub> contact	(24 h)	0.029 mg/bee.
LD <sub>50</sub> oral	(24 h)	0.098 mg/bee.

**Plants:**  
**ENVIRONMENTAL EFFECTS:**  
**Persistence and degradability:** In soil and water, degradation is rapid. DT<sub>50</sub> in soil < 38 d (pH 4.2-7.7, o.m. 1.3-51.3%).

**Bio-accumulative Potential:** Not determined.  
**Mobility in soil:** Not determined.  
**Other adverse effects:** Not likely to be a hazard to the environment when used as recommended.

## 13. DISPOSAL CONSIDERATIONS

**Waste:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

**Container:** Emptied containers retain product residues. Do not re-use the empty container for any other purpose. Destroy the container by perforating and flattening and dispose of via an approved collector or recycler ([www.croplife.co.za](http://www.croplife.co.za)). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages. Observe all labelled safeguards until container is destroyed.

## 14. TRANSPORT INFORMATION

**UN Number:** 3082

### Road Transport ADR/IRD:

Class: 9  
 Packaging group: III  
 UN Proper Shipping Name: Environmentally hazardous substance, Liquid, N.O.S. (Permethrin 50g/l)

### Maritime Transport IMDG/IMO:

Class: 9  
 Packaging group: III

UN Proper Shipping Name: Environmentally hazardous substance, Liquid, N.O.S. (Permethrin 50g/l)

**Marine Pollutant (Y/N):** Yes

### Air Transport IATA/ICAO:

Class: 9  
 Packaging group: III  
 UN Proper Shipping Name: Environmentally hazardous substance, Liquid, N.O.S. (Permethrin 50g/l)

**Special/Environmental Precautions:** Wedge drums tightly to avoid movement.

**Transport in bulk** (according to MARPOL 73/78, Annex II and the IBC code): Not available.

## 15. REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation for the mixture:**

OHSA 1993 Regulations for Hazardous Chemical Substances.

**Relevant information regarding restrictions:** None.

**EU regulation:** Regulation EC1272/2008 (EU-GHS/CLP)

**Other national regulations:** None.

**Chemical Safety Assessment carried out?** No

## 16. OTHER INFORMATION

**Packaging:** Packed in 50, 100, 250, 500 ml and 1, 5, 10 litres fluorinated HDPE containers, labelled according to South African regulations and guidelines.

### Additional H statements (formulants):

**H302:** Harmful if swallowed.

**H332:** Harmful if inhaled.

**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 and use of the product. It is not applicable to 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

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For detailed information on revisions, contact the Registration holder.