

# VILLA QUAT 50 SL

# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

**Product Name:** QUAT 50 SL  
 Plant Growth Regulator  
**UN No.:** Not Regulated  
**Supplier:** Villa Crop Protection (Pty) Ltd.  
 PO Box 10413  
 Aston Manor, 1630, South Africa  
**Telephone:** (011) 3962233  
**Fax:** (011) 3964666  
**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:** Mepiquat chloride  
**TSCA/CAS No.:** 7783-20-2  
**Chemical family:** quaternary ammonium  
**Formula:** C<sub>7</sub>H<sub>16</sub>ClN  
**Use:** Plant growth regulator, absorbed and translocated throughout the plant.  
**Formulation:** Mepiquat chloride 50 g/l  
**Risk Phases:** R 20/21/22, R 36, R52/53

## 3. HAZARD IDENTIFICATION

### 3.1 Human health

**Skin contact:** May cause mild skin irritation

**Eye contact:** Prolonged contact depending on the amount of product may cause moderate irritation.

**Ingestion:** If swallowed in large amounts may cause decrease in muscular coordination.

**Inhalation:** Not considered as hazard, though inhalation of spray mist should be avoided as it may lead to respiratory irritation.

**Hazard classification:** WHO (a.i.) III; EPA (formulation) III (42.0 g/l SL)

### 3.2 Environment

**Hazards:** Avoid spillage into watercourses or water bodies.

**Biodegradability:** Biodegradation data for **Mepiquat chloride** in water are not available; however, it is fairly rapidly biodegraded to carbon dioxide in soil studies (half-lives of 3 to 21 days).

## 4. FIRST AID MEASURES AND PRECAUTIONS

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.

**Skin contact:** Remove contaminated clothing, rinse skin with plenty of soap and water.

**Eye contact:** Flush for 15 minutes with plenty of water. If irritation continues, get medical attention.

**Ingestion:** Seek medical advice.

**Inhalation:** Remove patient to fresh air.

**Sensitization:** Not a skin sensitizer.

**Emergency antidote:** None applicable treat symptomatically.

**Medical advice:** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Flammability:** Not flammable.

**Flash point:** None.

**Explosivity:** Not explosive.

**Extinguishing media:** Foam, CO<sub>2</sub>, dry powder extinguishant, water-fog.

**Hazardous decomposition products:** Product combustion may lead to the generation of Hydrochloric acid and Nitrogen oxides.

**Firefighting procedures:** Fire fighters should wear protective clothing and breathing apparatus.

Avoid breathing toxic vapours. Keep up-wind.

Call the Fire brigade. Avoid any fumes (toxic). Stand up-wind of the fire. Wear self-containing breathing apparatus if fumes are being entered. Use plenty of water. Open doors and windows of the store to give maximum ventilation. If spillage enters any drains or watercourse, inform the local authorities immediately.

## 6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

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Prevent entry into waterways, sewers, basements or confined areas.

**DO NOT GET WATER INSIDE BAGS.**

Absorb or cover with dry earth sand and place into containers for disposal.

## 7. HANDLING AND STORAGE REQUIREMENTS

**Handling:** Relatively safe to handle, but avoid contact with eyes and skin. Treat with usual precautions due for crop protection chemicals.

Separation of at least 3 meters from the following classes is recommended: Flammable liquids, flammable solids, and spontaneously combustibles. Fire separation of at least 5 meters or 4 meters fire resistant wall from the following classes is recommended: Flammable gasses, Dangerous when wet oxidizing agents and organic peroxides. Do not mix, store or apply in galvanised or unlined steel drum.

**Storage:** Store in the original container, avoid temperatures below 32 °C or above 100 °C and do not allow product to freeze. Stable for two year in normal warehouse storage conditions.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

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. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.

**Precautionary and engineering measures:** Provide ventilation where necessary. Use a non-sparking, grounded ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside. Supply sufficient replacement air to make up for air removed.

**Personal Protection:** Have a safety shower/eye wash fountain readily available in the immediate work area. Wear suitable gloves when handling the product over long periods. Also wear safety goggles & face shield, boots, gloves, and / or respiratory protection. After handling product, wash hands and observe good hygiene practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Light yellow limpidity liquid/ Soluble concentrate.
<b>Odour:</b>	Odourless.
<b>Flash point:</b>	Not applicable.
<b>pH:</b>	5.0 to 7.0.
<b>Density:</b>	Not applicable.
<b>Solubility:</b>	Soluble in water.

## 10. STABILITY AND REACTIVITY

**Stability:** Stable in original closed drum and avoid temperatures below 30 °C or above 100 °C

**Storage stability:** Stable for up to 2 years when stored in a dry, cool covered warehouse in original, well-labelled containers. Store at low temperature conditions, below 50°C, preferably below 30 °C and not for prolonged periods in direct sunlight.

**Conditions to avoid:** Avoid elevated temperatures as this might cause decomposition of the product.

**Hazardous reaction / decomposition products:** May emit toxic fumes of nitrogen oxides and hydrochloric acid if heated in a fire.

## 11. TOXICOLOGICAL INFORMATION

**Acute oral LD<sub>50</sub>:** >270 mg/kg (tech.).

**Acute dermal LD<sub>50</sub>:** >1160 mg/kg (tech).

**Eye contact:** Moderate irritant.

**Skin contact:** Mild skin irritant.

**Chronic toxicity:** Repeated or prolong is not considered as hazard though inhalation of spray mist should be avoided as it may lead to respiratory irritation.

**Carcinogenic effect:** No known carcinogenic effect

## 12. ECOLOGICAL INFORMATION

**Persistence / Degradability:** In animals: In rats, following oral administration of mepiquat chloride, c. 48% is excreted in the urine and c. 38% in the faeces, with <1% remaining in the tissues. The un-metabolised material constitutes c. 90% in each case.

In soil & water: Biodegradation data for **Mepiquat chloride** in water are not available; however, it is fairly rapidly biodegraded to carbon dioxide in soil studies (half-lives of 3 to 21 days).

**Environmental toxicity: (Technical)**

**Birds:** LD<sub>50</sub> for bobwhite quail > 2000 mg/b.w. Dietary LC<sub>50</sub> for ducks and bobwhite quail > 5637 mg/kg diet.

**Fish:** LC<sub>50</sub> (96 h) for rainbow trout >100 mg/l.

**Daphnia:** LC<sub>50</sub> (48 h) 106 mg/l.

**Algae:** EbC<sub>50</sub> & ErC<sub>50</sub> (72 h) for *Pseudokirchneriella subcapitata* > 1000 mg/l.

**Bees:** LD<sub>50</sub> (48 h) (oral) > 107.4 µg/bee and (contact) > 100µg/bee.

**Worms:** LC<sub>50</sub> (14 d) for *Eisenia foetida* 319.5 mg/kg dry soil.

## 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. Never pour

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untreated waste or surplus products 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.

**Container disposal:** Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

**TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.

Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils.

Comply with local legislation applying to waste disposal

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.

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**END OF DOCUMENT**

**Compiled:** July 2012  
**Reviewed:** March 2019  
**Revision no.:** (2)  
**Next revision date:** March 2024

For detailed information on revisions, contact the Registration holder.

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## 14. TRANSPORT INFORMATION

**Transport:** Wedge drums tightly to avoid movement.

**UN No.:** Not Regulated.

**IMDG-Shipping name:** Not Regulated.

**Class:** Not Regulated.

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## 15. REGULATORY INFORMATION

**Risk Phases:**

**R 20/21/22** Harmful by inhalation, in contact with skin and if swallowed.

**R 36** Irritating to eyes.

**R 52/53** Harmful to aquatic organisms may cause long-term adverse effects in the aquatic environment.

**Safety Phases:**

**S 1/2** Keep out of reach of children.

**S 26** In case of contact with eyes rinse immediately with plenty of water and seek medical advice.

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## 16. OTHER INFORMATION

**Packaging:** Packed in 1, 5, 10, 15, 20, 25 and 50 litres plastic containers and 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