



OTHER

# Agrine

Act 5 GNR529 / 245804 / 070 / 0462

**FUNGICIDAL · BACTERICIDAL · VIRICIDAL**

**A broad spectrum chlorine-based surface disinfectant for use in the agricultural industry. To be used in conjunction with AGRINE ACTIVATOR**

## Active Ingredients:

Chlorine dioxide 50 g/l

**Rolfes**   
Formulating Sustainable Growth **Agri**

Registered, Manufactured and Distributed by:  
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**UN NO.: 3082**  
SEE CONTAINER FOR BATCH DETAILS  
COUNTRY OF ORIGIN: REPUBLIC OF SOUTH AFRICA  
VERSION ROLFES AGRI: 01/2019

**SHAKE WELL**

Shake well before use • Store at room temperature  
Keep out of direct sunlight • Keep container closed when not in use



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## THE COMBINATION OF AGRINE AND AGRINE ACTIVATOR:

- Is very water-soluble.
- Is a fast acting broad-spectrum disinfectant.

## IMPORTANT INFORMATION

The efficacy and amount of chlorine dioxide that is activated in the stock solution is dependent on the accuracy applied and care taken during mixing, and the use of the correct method of mixing. The slower and more thoroughly the mixing is done, the more chlorine dioxide is activated.

## MIXING INSTRUCTIONS

Procedure to prepare 11 ℓ stock solution:

1. Always prepare the stock solution in a well-ventilated area as it is inevitable that chlorine gas will be formed during the activation process.
2. Pour 5 ℓ clean water into a clean 20 ℓ container.
3. Pour 5 ℓ **AGRINE** into the same container and mix the water and **AGRINE** thoroughly.
4. Slowly mix 1 ℓ **AGRINE ACTIVATOR** with the 10 ℓ **AGRINE** solution (5 ℓ clean water + 5 ℓ **AGRINE**).
5. **AGRINE ACTIVATOR** will activate the solution, which in turn will slowly turn yellow. Avoid breathing any fumes that may be released. The slower **AGRINE ACTIVATOR** is added, the higher the concentration of chlorine dioxide that will be activated.
6. Allow for a reaction time of at least 5 minutes. The final stock solution will have a concentration of 22 000 parts per million (ppm) chlorine dioxide. This concentration is close to the maximum concentration of chlorine dioxide that can be stored for a long period of time.
7. **STORAGE:** This stock solution will have a shelf life of 14 – 21 days, depending on environmental conditions. Store this stock solution in a clean, dry, dark area that is well-ventilated, away dust, heat and organic matter. Store at a temperature not exceeding 30 °C, protected from intense light and apart from flammable materials, food products and packaging material. Only use sealable containers that are approved for the storage of chlorine dioxide solutions.

Dilution of the stock solution (**AGRINE** solution):

1. When the product is required for use, the stock solution is to be mixed with the correct amount of water as specified in the **DIRECTIONS FOR USE** table. Ensure thorough mixing.
2. Treat the water with **AQUA-RIGHT® 3•** before adding the stock solution.
3. **STORAGE:** Should the diluted stock solution need to be stored, the level can be monitored using the available test kit. Adhere to same storage conditions as for the storage of the stock solution. Should the level decrease below the desired level, the product must be topped up with additional stock solution until the desired level is reached. Ensure thorough mixing.

For more information on the correct use and application of **AGRINE** with **AGRINE ACTIVATOR**, **AQUA-RIGHT® 3•** and the available test kit, as well as where to obtain these products, please contact an **Rolfes Agri (Pty) Ltd** representative.

## PERSONAL PROTECTIVE EQUIPMENT

Always handle the product with care.

Maintain an eye wash fountain and quick-drench facilities in the work area.

## Eyes and skin:

Use the necessary personal protective equipment required to prevent contact of the solution with eyes and skin during handling including a coverall with long sleeves, rubber boots and impermeable gloves, chemical safety goggles or full face shield where splashing is possible.

## Inhalation:

A NIOSH approved full-face acid gas respirator is acceptable for use when handling the product. A NIOSH approved self-contained breathing apparatus with full-face piece is recommended for leaks and any emergency situation. Appropriate respiratory protection should at least be carried around at all times by personnel handling the product for escape purposes during any accidental release or the presence of large amounts of gas.

## FIRST AID

### Eyes:

Immediately flush eyes with clean water for at least 15 minutes, lifting lower and upper eyelids occasionally. After the first 5 minutes of flushing, check for contact lenses and remove if present. Immediately contact a doctor or poison control centre for further treatment advice.

### Skin:

Remove any contaminated clothing. Rinse skin with plenty of water for at least 15 minutes. Contact a doctor for treatment advice if burning, irritation or any other symptom develops or persists. Wash clothing before re-use.

### Ingestion:

Have victim rinse mouth thoroughly with water. If the person is conscious, give water to the person if they are able to swallow. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits, rinse mouth and administer more water. Do not induce vomiting unless told to do so by a doctor or poison control centre. Immediately contact a doctor or poison control centre for further treatment advice. If person is not breathing, call for an ambulance and then give artificial respiration.

### Inhalation:

Remove person to fresh air immediately and monitor for respiratory distress. Keep person at rest and warm. If person is not breathing, call for an ambulance and then give artificial respiration. If breathing is difficult, immediately contact a doctor for further treatment advice. Even if there are no immediate symptoms, the person must be monitored by medical personnel for a few days after inhalation for delayed symptoms.

**PRECAUTIONS**

- Avoid contact with skin and eyes.
- Avoid breathing vapours.
- After handling, wash hands thoroughly with soap and plenty water.

- The efficacy of the disinfectant could be compromised if surfaces are soiled. Intense sunlight could also affect the efficacy of the disinfectant.
- Avoid prolonged contact with stainless steel surfaces. Rinse stainless steel surfaces with clean water clean water after the recommended contact time has been met.
- The product should not be mixed with other incompatible substances.

**DIRECTIONS FOR USE: USE ONLY AS INDICATED.**

Always treat the dilution water for the stock solution with **AQUA-RIGHT® 3** at the following rate:

150 mℓ per 100 ℓ water.

USE		CONTACT TIME: MINUTES	DILUTION RATE: AGRINE STOCK SOLUTION PER 100 ℓ WATER	PPM OF FINAL SOLUTION
<b>Work surfaces, Tools, Sorting tables (warehouses), Plastic crates</b>				
Rinse surfaces with clean water after the recommended contact time has been met.	Viricidal, Fungicidal	15	1000 mℓ	220 ppm (pH 3.2*)
	Bactericidal	5	250 mℓ	55 ppm (pH 3.2*)
<b>Spray tanks, Wet walls (tunnels/greenhouses)</b>				
Rinse surfaces with clean water after the recommended contact time has been met.	Bactericidal	5	250 mℓ	55 ppm (pH 3.2*)
<b>Hydroponic systems (in the absence of the crop)</b>				
Flush system with clean water after the recommended contact time has been met.	Bactericidal	5	250 mℓ	55 ppm (pH 3.2*)
<b>Dripper lines (in the absence of the crop)</b>				
Flush system with clean water after the recommended contact time has been met.	Viricidal, Fungicidal	15	1000 mℓ	220 ppm (pH 3.2*)
	Bactericidal	5	250 mℓ	55 ppm (pH 3.2*)
<b>Foot baths</b>				
Replace the mixture in the footbath on a daily basis as required. Replace twice daily should boots be heavily soiled or if the foot bath is kept in direct sunlight.	Viricidal, Fungicidal	15	1000 mℓ	220 ppm (pH 3.2*)
	Bactericidal	5	250 mℓ	55 ppm (pH 3.2*)

\*pH at the recommended dilution

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- **AQUA-RIGHT® 3**, Reg. No. L6896, Act No. 36 of 1947