



MARIQUAT

Reg no: Act 5 GNR529/289578/040/0868

Agricultural Disinfectant

PRODUCT DESCRIPTION

MARIQUAT is an environment friendly non-toxic broad spectrum QAC contact sanitizer for use in the agricultural industry, especially against bacteria such as *A.niger*, *P.aeruginosa*, *E.coli*, *S.aureus*, etc.

Active Ingredients:

Didecyl Dimethyl Ammonium Chloride 120.0 g/L
pH 3.95

Nett Mass / Volume

20 L

REGISTRATION HOLDER AND SUPPLIER DETAILS

Metson World

2010/019964/07

51 Verdun Road, Kya Sands, 2196

011 792 8968

EMERGENCY CONTACT NUMBER

0861 METSON (638 766)

GHS (Pictogram)



WARNING / DANGER

BATCH NUMBER:

UN Number: Not regulated

Hazard Statements:

- May cause an allergic skin reaction.
- May cause respiratory irritation.
- Very toxic to aquatic life long lasting effects.
- Causes severe skin burns and serious eye damage.
- Toxic if inhaled.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.



MARIQUAT

Precautionary Statements:

- Poisonous when swallowed.
- Wear protective eye protection.
- Do not eat, drink, or smoke when mixing or using this product Do not inhale dust.
- Remove contaminated clothing immediately.
- IF ON SKIN: wash with plenty of soap and water.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and continue rinsing.
- In case of poisoning: CALL A DOCTOR AND MAKE THIS LABEL AVAILABLE TO HIM/HER.
- Store in a well-ventilated area. Keep container tightly closed.
- Destroy empty container by perforating, flattening and dispose of container in a safe way.
- Store away from food and feedstuffs.
- Prevent contamination of food, feedstuffs, drinking water, eating utensils.
- Keep out of reach of children.
- The misuse of this product may cause serious damage to the crops. It should be used only under the direction of an agronomist. The manufacturer furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions that could not have been foreseen in terms of the label. Consult the supplier in the event of any uncertainty.

General

- For use in packhouses.
- Disinfection of hard surfaces.
- Bio-degradable
- Contact time - 15 minutes

Directions for use: (use only as directed)

- **MARIQUAT** is compatible with the majority of agricultural remedies. A detailed list of such remedies is available on request. It is however advisable to do a miscibility test prior to mixing with other chemicals.
- Do not mix with incompatible substances - consult with agronomist or agent for more information.
- **MARIQUAT** remains effective irrespective of the pH of the spray mixture.
- Do not apply with concentrated anionic products.
- Also take note of not applying **MARIQUAT** as a water treatment in closed circulating hydroponic systems where organic growing media is present.
- It is impossible to assess the sensitivity of all crop cultivars for the product. It is therefore in terms of phytotoxicity recommended to conduct tests on cultivars known for its sensitivity towards agrochemicals.
- Use **MARIQUAT** as an overhead spray for the sanitizing of the crops.
- Major uses include sanitizing of leave surfaces of vegetables, flowers and fruit crops and seedlings, post-harvest orchard hygiene of deciduous fruit, table and wine grapes, sanitizing of fruit and vegetable surfaces and water in dipping tanks, growing medium, equipment such as pruning shears and ploughs, foot baths, hands, cold rooms, packing sheds, greenhouses, seedling trays, other hard surfaces like picking bins etc., irrigation water, water in spray tanks and wet walls, flower bulbs in storage and storage water for cut-flowers.



MARIQUAT

- For Bacterial and Fungal control: apply a 500 – 1500 L spray mixture/ha depending on the plant size, but ensure proper coverage of the leaves.
- Storage: Keep from freezing and store in a cool, dry place. Do not store with food, feed or other materials for human or animal consumption. Keep container tightly closed. Store in a well ventilated area, below 40°C.

*** Fruit and Vegetables involved: Apples, Asparagus, Avocado, Brussels sprouts, Butternut, Citrus, Guava, Mango, Papaya, Pears, Potato, Pepper, Pumpkin, Sweet corn, Tomato, etc. and water during post-harvest dipping.**

Application Detail:

CROPS	DOSAGE per 100 L water	REMARKS
BACTERIAL AND FUNGAL CONTROL		
Brassica	50 – 100 ml	Apply at 10 day intervals starting immediately after transplanting the seedling
Carrots	50 – 100 ml	Apply at 10 day intervals starting immediately after transplanting the seedling
Cucurbits	50 – 100 ml	Apply at 10 day intervals starting immediately after transplanting the seedling
Cut Flowers Carnations, Chrysanthemum, Gypsophila, Outdoor Roses	50 – 100 ml	Apply at 10 day intervals starting immediately after transplanting the seedling
Deciduous Fruit	50 ml	Apply at 14 day intervals starting prior to budding and repeat throughout the growing season
Dry Beans	50 – 100 ml	Apply at 10 day intervals starting immediately after transplanting the seedling
Lettuce	50 – 100 ml	Apply at 10 day intervals starting immediately after transplanting the seedling
Nursery stock	25 ml	Apply at 7 day intervals starting after the first true leaf expansion
Nut Trees	100 ml per 100 L water	Apply at 10 – 14 day intervals starting before flowering.
Paprika, Peppers, Potatoes	50 – 100 ml	Apply at 10 day intervals starting immediately after transplanting the seedling
Roses (Greenhouse grown)	50 ml	Apply at 14 day intervals
Seedlings	25 ml	First application after first true leaf expansion. Apply at 7day intervals.
Strawberries	50 – 100 ml	Apply at 10 day intervals starting immediately after transplanting the seedling
Table Grapes	50 ml	Apply at 14 day intervals starting after full flowering
Tomatoes	50 – 100 ml	Apply at 10 day intervals starting immediately after transplanting the seedling
Wine Grapes	50 – 100 ml	Apply at 14 day intervals starting after 100% flowering
APPLICATION METHODS FOR BACTERIAL AND FUNGAL CONTROL		
Aerial	1-2L /30-50L water	
Centre Pivot	1-2L/ha	Centre Pivot should function at 100% speed capacity. Apply after sunset.
Post-Harvest Orchard Hygiene Deciduous Fruit & Grapes	100 ml	Apply as a high volume spray ensuring proper coverage of the crop. First application post-harvest in order to decrease the pathogen population in the orchard and repeat prior to leaf drop to decrease the over winter pathogen population.



MARIQUAT

SANITISING		
Cold Rooms	100 – 200 ml	After all unwanted matter is removed, apply MARIQUAT evenly on the surfaces and keep the solution for 10 minutes to ensure proper sanitation before watering the area down.
Dip Tanks	100 – 150 ml	The MARIQUAT solution will remain effective for a period of 3 days depending on the water quality. To ensure proper sanitation, dunk the dip tank for 5 minutes in the solution. Where extreme agitation is present (e.g. Hydro Coolers), ANTI-FOAMER should be applied as foam may form.

CROPS	DOSAGE per 100 L water	REMARKS
Equipment Pruning shears, ploughs, foot baths and hands	1000 ml	Ensure proper coverage of the surfaces to be sanitized
Flower Bulbs	100 – 150 ml	Apply in conjunction with a systemic fungicide or bactericide.
Greenhouses	100 – 200 ml	After all unwanted matter is removed, apply MARIQUAT evenly on the surfaces and keep the solution for 10 minutes to ensure proper sanitation before watering the area down.
Water in spray tanks & wet walls	50 ml	Utilize as a sterilant by adding MARIQUAT to the water
Growing media Inert or non - organic	1000 ml	Ensure proper coverage of the surfaces to be sanitized
Irrigation water Nurseries, greenhouses, misting systems, etc.	2 ml (continuous dosing)	When dosing for the first few times, dirt/algae/organic matter will be discharged and may clog drippers or spitters. Therefore rinse pipes frequently. Take note: The cleaner the water to be treated, the better the results.
Packing shed	100 – 200 ml	After all unwanted matter is removed, apply MARIQUAT evenly on the surfaces and keep the solution for 10 minutes to ensure proper sanitation before watering the area down.
Picking bins	100 – 200 ml	After all unwanted matter is removed, apply MARIQUAT evenly on the surfaces and keep the solution for 10 minutes to ensure proper sanitation before watering the area down.
Seed trays	100 – 200 ml	After all unwanted matter is removed, apply MARIQUAT evenly on the surfaces and keep the solution for 10 minutes to ensure proper sanitation before watering the area down.
Storage of Cut-flowers	50 ml	When flowers are stored in water for no longer than 7 days. Cut-flowers for the export market: place the flower stems in the solution for no longer than 48 hours.
Surfaces and Work areas*	100 – 150 ml	The MARIQUAT solution will remain effective for a period of 3 days depending on the water quality. To ensure proper sanitation, dunk the dip tank for 5 minutes in the solution. Where extreme agitation is present (e.g. Hydro Coolers), ANTI-FOAMER should be applied as foam may form.
Water for post-harvest dipping	100 – 150 ml	The MARIQUAT solution will remain effective for a period of 3 days depending on the water quality. To ensure proper sanitation, dunk the dip tank for 5 minutes in the solution. Where extreme agitation is present (e.g. Hydro Coolers), ANTI-FOAMER should be applied as foam may form.

Disclaimer / Conditions of Sale:

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors not controlled by the manufacturer. The registration holder furthermore does not accept responsibility for damage to crops, the environment, man or animal or for lack of performance of the remedy due to failure of the end user to follow label instructions or unforeseen events or conditions. Consult the supplier in the event of any uncertainty.



MARIQUAT



Reg No: Act 5 GNR529/209578/040/0868
AGRICULTURAL DISINFECTANT

Food safe agricultural disinfectant

PRODUCT DESCRIPTION:

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ACTIVE INGREDIENTS:

Didecyl Dimethyl Ammonium Chloride
pH: 3.95

120.0 g/L

NET MASS
VOLUME **20 L**

REGISTRATION HOLDER: Metson World

CK 2010/019964/07
51 Verdun Road, Kya Sands, 2196

EMERGENCY CONTACT: 0861 METSON (638 766)



**WARNING
DANGER**



WARNING:
Keep away from food and feeds. Store in a cool dry place out of reach from children and/or untrained persons and animals.

Search for:
Product Code:

UN Number: Not Regulated

HAZARD STATEMENTS:

- May cause an allergic skin reaction.
- May cause respiratory irritation.
- Very toxic to aquatic life with long lasting effects.
- Causes severe skin burns and serious eye damage.
- Toxic if inhaled.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.

PRECAUTIONARY STATEMENTS:

- Phytotoxic when misused.
- Wear protective eye protection.
- Do not eat, drink, or smoke when mixing or using this product. Do not inhale dust.
- Remove contaminated clothing immediately.
- IF ON SKIN: wash with plenty of soap and water.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and continue rinsing.
- In case of poisoning: CALL A DOCTOR AND MAKE THIS LABEL AVAILABLE TO HIM/HER.
- Store in a well-ventilated area. Keep container tightly closed.
- Destroy empty container by perforating, flattening and dispose of container in a safe way.
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- Also take note of not applying **MARIQUAT** as a water treatment in closed circulating hydroponic systems where organic growing media is present.
- It is impossible to assess the sensitivity of all crop cultivars for the product. It is therefore in terms of phytotoxicity recommended to conduct tests on cultivars known for its sensitivity towards agrochemicals.
- For Bacterial and Fungal control: apply a 500 - 1500 L spray mixture/ha depending on the plant size, but ensure proper coverage of the leaves.
- Use **MARIQUAT** as an overhead spray for the sanitizing of the crops.
- Major uses include sanitizing of leaf surfaces of vegetables, flowers and fruit crops and seedlings, post-harvest orchard hygiene of deciduous fruit, table and wine grapes, sanitizing of fruit and vegetable surfaces and water in dipping tanks, growing medium, equipment such as pruning shears and ploughs, foot baths, hands, cold rooms, packing sheds, greenhouses, seedling trays, other hard surfaces like picking bins etc, irrigation water; water in spray tanks and wet walls, flower bulbs in storage and storage water for cut-flowers.
- Storage: Keep from freezing and store in a cool, dry place. Do not store with food, feed or other materials for human or animal consumption. Keep container tightly closed. Store in a well ventilated area, below 40°C.

*Fruit and Vegetables Involved: Apples, Asparagus, Avocado, Brussels sprouts, Butterbean, Citrus, Guava, Mango, Papaya, Pears, Potato, Pepper, Pumpkin, Sweet corn, Tomato, and water during post-harvest dipping.

APPLICATION DETAILS:

(Shake well before use)

CROPS	DISINFECTION PER 100 L WATER	REMARKS
BACTERICIDAL AND FUNGICIDAL CONTROL		
Apples	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Carrots	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Onions	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Cut Flowers, Carnations, Chrysanthemums, Cypripedium, Daffodils	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Geraniums	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Hydrangeas	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Impatiens	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Marigolds	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Peonies	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Phloxes	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Primulas	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Roses	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Tulips	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Wisterias	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
Yuccas	100 - 1000 ml	Apply at 10 day intervals starting immediately after transplanting the seedlings.
APPLICATION METHODS FOR BACTERICIDAL AND FUNGICIDAL CONTROL		
Apples	5-10 (100-500) water	Control fruit rot and other diseases. Apply after harvest.
Carrots	5-10 (100-500) water	Control root rot and other diseases. Apply after harvest.
Onions	5-10 (100-500) water	Control root rot and other diseases. Apply after harvest.
Cut Flowers, Carnations, Chrysanthemums, Cypripedium, Daffodils, Geraniums, Hydrangeas, Impatiens, Marigolds, Peonies, Phloxes, Primulas, Roses, Tulips, Wisterias, Yuccas	5-10 (100-500) water	Control root rot and other diseases. Apply after harvest.
SANITIZING		
Cold Rooms	100 - 200 ml	After all unwanted matter is removed, apply MARIQUAT evenly on the surfaces and keep the solution for 10 minutes to ensure proper sanitation before watering the area down.
Dip Tanks	100 - 150 ml	The MARIQUAT solution will remain effective for a period of 7 days depending on the water quality. To ensure proper sanitation, dunk the dip tank for 5 minutes in the solution. Where extreme agitation is present (e.g. Hydroponics), MARIQUAT should be applied as soon as possible.
Pruning shears, ploughs, foot baths and tools	1000 ml	Ensure proper coverage of the surfaces to be sanitized.
Equipment	100 - 150 ml	Apply in combination with water. Apply as a spray.
Greenhouses	100 - 200 ml	After all unwanted matter is removed, apply MARIQUAT evenly on the surfaces and keep the solution for 10 minutes to ensure proper sanitation before watering the area down.
Water in spray tanks & wet walls	50 ml	Use as a disinfectant by adding MARIQUAT to the water.
Growing media (soil or soil-less)	1000 ml	Ensure proper coverage of the surfaces to be sanitized.
Harvested produce (e.g. Apples, Carrots, Onions, etc.)	2 ml (per 1000 ml water)	When dipping for the first time, 40% vapor/volume water will be discharged and may cling to the produce. Therefore, dip the produce in the solution for 5 minutes. The cleaner the water to be treated, the better the results.
Packing shed	100 - 200 ml	After all unwanted matter is removed, apply MARIQUAT evenly on the surfaces and keep the solution for 10 minutes to ensure proper sanitation before watering the area down.
Picking bins	100 - 200 ml	After all unwanted matter is removed, apply MARIQUAT evenly on the surfaces and keep the solution for 10 minutes to ensure proper sanitation before watering the area down.
Seed trays	100 - 200 ml	After all unwanted matter is removed, apply MARIQUAT evenly on the surfaces and keep the solution for 10 minutes to ensure proper sanitation before watering the area down.
Storage of Cut-Flowers	50 ml	When flowers are stored in water for no longer than 7 days. Cut flowers for the export market: place the flower stems in the solution for no longer than 48 hours.
Surfaces and Work areas*	100 - 150 ml	The MARIQUAT solution will remain effective for a period of 7 days depending on the water quality. To ensure proper sanitation, dunk the dip tank for 5 minutes in the solution. Where extreme agitation is present (e.g. Hydroponics), MARIQUAT should be applied as soon as possible.
Water for post-harvest dipping	100 - 150 ml	The MARIQUAT solution will remain effective for a period of 7 days depending on the water quality. To ensure proper sanitation, dunk the dip tank for 5 minutes in the solution. Where extreme agitation is present (e.g. Hydroponics), MARIQUAT should be applied as soon as possible.

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