

pH 5

BUFFERING SYSTEM



COMPLEXING OF SALTS



HUMECTANT



WETTING/SPREADING

AQUA Right[®] 5

Aqua-Right[®] is a registered Trademark of Ag-Chem Africa (Pty) Ltd Reg. No. L6205 Act No. 36 of 1947



ADJUVANT



A water-soluble buffer for specific use with those agricultural chemicals whose optimal performance in spray water require a pH 5. Also contains a wetting agent to ensure adequate wetting of all plant surfaces.

Active Ingredients

Buffering & wetting systems	577 g/l
Alcohol ethoxylate	114 g/l

UN No. 2790

Content • Batch number • Manufacture date



agchem  Member of **Rolfes**
GROUP

Registered, Manufactured and Distributed by:

Ag-Chem Africa (Pty) Ltd (Reg. No. 1998/013411/07)
P.O.Box 589, Silverton, 0127, Gauteng, RSA.
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www.agchem.co.za



HARMFUL



www.agchem.co.za

AQUA-RIGHT: 01-2013/08



LIFT HERE

WARNINGS:

- Handle with care.
- Eye irritant.
- Observe any warnings that apply to the product or products with which **Aqua-Right® 5** is to be used.
- Do not use **Aqua-Right® 5** with remedies that require an alkaline environment (pH > 7).
- Store in a cool place away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- In case of poisoning call a doctor and make this label available to him/her.

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 such as abnormal climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animals 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, which could not have been foreseen in terms of registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS:

- Wear suitable protective clothing and rubber gloves when handling the concentrate.
- Avoid prolonged contact with concentrated product.
- In the case of contact, wash affected area with soap and water.
- In case of contact with eyes flush immediately with water for at least 10 minutes.
- Rinse empty container three times with a volume of water equal to at least 10% that of the container and add the rinsings to the contents of the spray tank before destroying the container.
- Destroy empty container by perforation and flattening and never use for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING:

Causes redness, pain and irritation to the eyes and skin. Inhalation and ingestion may result in the development of nausea, vomiting, diarrhoea and gastric distress.

FIRST AID TREATMENT:

Inhalation: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Keep person at rest and warm. Treat symptomatically and supportively as and when required. Obtain medical advice if necessary.

Ingestion:

Have victim rinse mouth thoroughly with water. Give ½ to one glass of water to dilute the material if victim is alert and not convulsing. Do NOT induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits, rinse mouth and administer more water. Never give anything by mouth to an unconscious person. Qualified medical personnel should perform administration of oxygen. Seek medical advice immediately.

- Store at room temperature
- Keep out of direct sunlight
- Keep container closed when not in use

Skin contact:

Remove any contaminated clothing. Wash skin with water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing before re-use. Do NOT rub skin hard.

Eye contact:

Immediately flush eyes with lukewarm water or saline solution for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

NOTE TO PHYSICIAN: Treat symptomatically.

DIRECTIONS FOR USE: Use only as indicated.

MIXING INSTRUCTIONS:

Mix **Aqua-Right® 5** with the spray tank water before adding any other agricultural remedies.

GENERAL NOTES:

- **Aqua-Right® 5** contains an organic buffering system that when applied correctly will buffer the majority of spray solutions between a pH of 4,5 - 5,5 depending on water quality.
- **Aqua-Right® 5** contains a wetting agent to improve the wetting, spreading and contact of the remedy on the sprayed plant surface.
- **Aqua-Right® 5** contains a sequestering agent that complexes and inactivates harmful salts in solution of Ca and Mg.
- **Aqua-Right® 5** increases the rate of uptake of systemic remedies and foliar feeds.
- **Aqua-Right® 5** contains humectant activity that retards the rate of spray droplet evaporation from the plant surface.
- **Aqua-Right® 5** helps prevent rapid degradation of alkaline sensitive remedies.

RECOMMENDATIONS:

Aqua-Right® 5 is for use with those agricultural remedies that require a slightly acidic environment for optimal performance.

WATER QUALITY		APPLICATION RATE
Good	pH 6-7 ; EC 0-500 mS	50 mℓ/100 ℓ water
Average	pH 7-8 ; EC 500-1000 mS	75 mℓ/100 ℓ water
Poor	pH > 8 ; EC > 1000 mS	100 mℓ/100 ℓ water
When the pH of the spray water is not known, it is recommended that Aqua-Right® 5 be applied at the rate of 100 mℓ per 100 ℓ water.		

Application rate may be affected by water quality. It is advisable to routinely check the pH of the spray tank water before and after the incorporation of **Aqua-Right® 5**.

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MSDS – Material Safety Data Sheet

LAST REVISED: 05.12
MSDS NO.: ACAA 2

AQUA-RIGHT 5

1. IDENTIFICATION OF THE SUBSTANCE

Product Identification: Clear Blue Liquid
Use: Spray tank water quality rectifier
UN No: 2790

Supplier: Ag-Chem Africa (Pty) Ltd.
288 Mundt Street
Waltloo
012 - 803 0145

Emergency number: 012 - 803 0145

Poison Centre: Griffon Poison Information Centre
(24 Hour Poisoning Emergency Helpline)
082 446 8946

2. COMPOSITION/INFORMATION ON INGREDIENTS

Composition:

Buffering system	577 g/l
Alcohol Ethoxylate	114 g/l

3. HAZARDS IDENTIFICATION

Emergency Overview

- Hazardous and corrosive
- Causes eye burns and irritation
- Harmful if swallowed or inhaled
- Causes irritation to skin

Potential Health Effects

Inhalation:

Causes irritation to the mucous membranes of the respiratory tract. May be absorbed from the mucous membranes and depending on the amount of exposure could result in the development of nausea, vomiting, diarrhoea and gastric distress.

Ingestion:

Harmful if swallowed. Symptoms include sore throat, vomiting and diarrhoea.

Skin Contact:

Causes irritation, redness and pain to the skin. Not significantly absorbed through the intact skin. Readily absorbed through damaged or burned skin.

Eye Contact:

Causes severe irritation, redness and pain to the eyes.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

Persons with pre-existing eye disorders or impaired respiratory function may be more susceptible to the effects of this material.

4. FIRST AID MEASURES

Inhalation:

Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Keep person at rest and warm. Treat symptomatically and supportively as and when required. Obtain medical advice if necessary.

Ingestion:

Have victim rinse mouth thoroughly with water. Give water to dilute the material if victim is alert and not convulsing. Do NOT induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits, rinse mouth and administer more water. Never give anything by mouth to an unconscious person. Qualified medical personnel should perform administration of oxygen. Seek medical advice immediately.

Skin Contact:

Remove any contaminated clothing. Wash skin with water for at least 15 minutes. Cover the irritated skin with an emollient. Get medical attention if irritation develops or persists. Wash clothing before re-use. Do NOT rub skin hard.

Eye Contact:

Immediately flush eyes with lukewarm water or saline solution for at least 15 minutes, lifting lower and upper eyelids occasionally. Check for and remove contact lenses after 5 minutes. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Fire:

Explosion hazard when exposed to flame or fire, but do not ignite readily. Containers could explode when heated.

Fire Extinguishing Media:

Extinguish small fires with carbon dioxide, dry powder or alcohol-resistant foam. Water spray or fog can be used for larger fires or cooling of unaffected stock.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full-face piece operated in the pressure demand or other positive pressure mode. Fire may produce irritating or poisonous vapours, mists or other products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8.

Small Spills:

Dilute with water and mop up, or absorb with sand or an inert dry material and put in a suitable container for reclamation or disposal. If necessary, neutralize the residue with a dilute solution of sodium carbonate.

Large Spills:

Flammable and corrosive liquid that should be kept away from heat and sources of ignition. Stop leak if without risk. Dyke far ahead of liquid spills for later disposal. Absorb with sand or an inert dry material and put in a suitable container for reclamation or disposal. Do not touch spilled material. Use water spray curtain to divert vapour drift. Prevent entry of the substance into waterways, sewers, basements or confined areas. Neutralize the residue with a dilute solution of sodium carbonate.

7. HANDLING AND STORAGE

Handling:

Do not get in eyes, on skin or on clothing. Avoid inhalation of vapour, mist spray or gas. If ingested, seek immediate medical attention. Use with adequate ventilation. Wash hands before eating, drinking, smoking or using the toilet. Keep away from incompatibles such as oxidizing agents, reducing agents, metals, acids and alkalis. Observe all warnings and precautions listed for the product.

Storage:

Keep container in a shaded, well-ventilated area, away from heat, sparks and other sources of ignition. Keep container tightly closed and sealed until ready for use. Protect against physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation system:

In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Respirators:

A self contained breathing apparatus should be used to avoid inhalation of the product.

Skin Protection:

Wear appropriate protective clothing, including rubber boots and gloves.

Eye Protection:

Use chemical safety goggles and/or full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Formulation type:	Soluble concentrate (SL)
Appearance:	Blue Liquid
Odour:	Pungent Odour
Solubility:	Soluble in water
Density:	1.15
pH:	5.02 (CIPAC MT 75.3)
pH of 1% aqueous solution:	4.41 (CIPAC MT 75.3)
Boiling Point:	>100°C

10. STABILITY AND REACTIVITY

Stability:	Stable under ordinary conditions of use and storage.
Hazardous Polymerisation:	Will not occur.
Conditions to avoid:	Heat, ignition sources and incompatible materials.
Incompatibilities:	Oxidizing agents, reducing agents, metals, acids and alkalis.
Thermal Decomposition:	Toxic carbon monoxide and carbon dioxide fumes are released when the product decomposes on heating.

11. TOXICOLOGICAL INFORMATION

Oral LD ₅₀ (rat)	2 864 mg/kg
Dermal LD ₅₀ (rabbit)	> 10 000 mg/kg

Eye irritation:

Severe eye irritant (rabbit)

Skin irritation:

Moderate irritant (rabbit)

12. ECOLOGICAL INFORMATION

Environmental Fate:

(Based on the buffering system)

When released into either water or soil, this material is expected to readily biodegrade. When released into air, this material may be moderately degraded by reaction with photo chemically produced hydroxyl radicals. This material has an estimated bio concentration factor (BCF) of less than 100.

Environmental Toxicity:

(Based on buffering system)

LC₅₀ (fathead minnow): 88 mg/l/96 hr.

LC₅₀ (rainbow trout): 0.08 mg/l/24 hr.

May be toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Contaminated absorbents, surplus product (in diluted form), etc., should be buried in approved landfill. Comply with any local legislation applying to waste disposal. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility. Processing, use or contamination of this product may change the waste management options. Dispose of container by burying it in an approved hazardous waste landfill. Comply with local requirements at all times.

14. TRANSPORT INFORMATION

Shipping Name:	Acetic acid, Solution
Hazard Class:	8.0
UN No.:	2790
Packaging Group:	III

15. REGULATORY INFORMATION

EC – Hazard Class:	Harmful and Irritant.
Risk – Phrase:	R10 - Flammable R20/22 – Harmful by inhalation and if swallowed. R36/38 – Irritating to eyes and skin.
Safety – Phrase:	S23 – Do not breathe gas, vapours, mist or spray. S25 – Avoid contact with eyes S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S45 – In case of feeling unwell or accident, seek immediate medical attention.
National legislation:	National Road Traffic Act, 1996 (Act 93 of 1996). Fire Brigade Service Act, 1987 (Act 99 of 1987). Occupational Health and Safety Act, 1993 (Act 85 of 1993).

16. OTHER INFORMATION

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

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