

UNIVERSAL RIPPLE 500 EC

MATERIAL SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: **RIPPLE 500 EC**
 Insecticide
UN No.: **1993**
Supplier: **Universal Crop Protection (Pty) Ltd.**
Co. Reg. No.: **1983/008184/07**
 PO Box 801,
 Kempton Park, 1620, South Africa
Telephone: (011) 396 2233
Fax: (011) 396 4666
Website: 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: **Bromopropylate**
Chemical Name: 1-methylethyl-4-bromo- α -(4-bromophenyl)- α -hydroxybenzeneacetate
CAS No.: 18181-80-1
Chemical Family: Benzilate
Chemical Formula: C₁₇H₁₆Br₂O₃ (Mol. wt.: 428.1)
Use: Control of all stages of tetranychid & eriophyid mites on vines & other crops.
Mode of Action: Non-systemic acaricide with contact action, and long residual activity.
Formulation: **Bromopropylate:** 500 g/l Emulsifiable Concentrate
Hazardous Ingredient:

Chemical Name	CAS Number	g/l (w/v)
Bromopropylate	18181-80-1	500 g/l
Xylene	1330-20-7	Balance
Other Inerts		±390 g/l

SYMBOLS: T, N, Xi, F
RISK-PHASE(S): R10, R36/38, R51/53, R61

3. HAZARD IDENTIFICATION

Main hazard: May cause harm to unborn child.
Flammable. Irritating to eyes & skin.
 Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.
Likely routes of exposure: Swallowing.
Skin contact: Moderate irritant to skin.
Eye contact: Slight irritant to eyes.
Skin sensitisation: Not a skin sensitizer.
Ingestion: Harmful by ingestion. No significant adverse effects are expected to develop when used as recommended.

4. FIRST AID MEASURES AND PRECAUTIONS

Inhalation: Remove from exposure area to fresh air immediately. If breathing has stopped, administer artificial respiration. Keep patient warm and at rest. Treat symptomatically and supportively. Get medical attention if necessary.
Skin contact: Remove contaminated clothing, leather goods and shoes immediately. Wash affected area with large amounts of water (approximately 15 to 20 minutes). Get medical attention if necessary. Wash contaminated clothing before re-use.
Eye contact: Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing the eye with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15 to 20 minutes). **Immediate medical attention is required.**
Ingestion: Get medical attention immediately and make this document or label available to him. Never give anything to an unconscious person. **Do not induce vomiting:** contains petroleum distillates and/or aromatic solvents.
Note to physician:
Antidote: There is no specific antidote available. Treat symptomatically. **DO NOT INDUCE VOMITING:** contains petroleum distillates and/or aromatic solvents.

5. FIRE FIGHTING MEASURES

Fire and explosion hazard: **Flammable.**
Flash point: **39.6°C**
Suitable Extinguishing media: Use water spray, alcohol-resistant foam, carbon dioxide, or dry chemical powder.
Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.
Hazardous products of combustion: Combustion or thermal combustion will evolve toxic and irritant vapors.
Fire fighting:
 Remove spectators from surrounding area. As the product contains combustible organic components, fire will

UNIVERSAL RIPPLE 500 EC

MATERIAL SAFETY DATA SHEET

produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health. Flash back possible over considerable distance. Use a recommended extinguishing agent. Avoid inhaling hazardous vapours. Avoid pollution of waterways.

Personal protective equipment:

Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions: Keep people away from and upwind of spill/leak. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Remove all source of ignition. Avoid contact with skin and eyes. For personal protection see Section 8.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not allow entering drains or watercourses. Any Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

Methods for cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) & place in container for disposal according to local/ national regulations.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Avoid contact with eyes and skin. Use with adequate ventilation. When using, do not eat, drink or smoke. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment.

Storage: Store in a closed, original container in a dry, cool covered warehouse in original, well-labelled containers. Keep containers tightly closed. Store away from food, feedstuffs, fertilisers, seed and agricultural chemicals. Keep away from children and animals. Keep away from heat & sources of ignition. Keep away from combustible material. Keep in an area equipped with sprinklers. No smoking. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne mists or vapours are generated, use local exhaust ventilation controls. Assess exposure and use any additional

measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.

PERSONAL PROTECTIVE EQUIPMENT: The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

Respirator: No personal respiratory protective equipment normally required. A particulate filter respirator may be necessary until effective technical measures are installed.

Clothing: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

Eye protection: If eye contact is possible, use tight-fitting chemical safety goggles.

Emergency eye wash: 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: Light-brown Liquid. **Odour:** Sweetish

Flash point: 39.6 °C

Flammability: Flammable.

pH: (1% aqueous dilution): 3 to 7.

Density: 1.03 g/cm³.

10. STABILITY AND REACTIVITY

Stability: Chemically and thermally stable. **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 and Materials to Avoid: Will not polymerize.

Hazardous decomposition products: Combustion or thermal decomposition will evolve toxic and irritant vapors.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀: > 5000 mg/kg in rats.

Acute dermal LD₅₀: > 3170 mg/kg in rats.

Inhalation: > 2400 mg/m³ in rats (4 hours).

Skin irritation: Moderate irritation (rabbit).

Eye irritation: Slight irritation (rabbit).

Dermal sensitisation (technical): Not a skin sensitizer

Reproductivity: May cause harm to unborn child.

Carcinogenicity: Not known to be carcinogenic.

UNIVERSAL RIPPLE 500 EC

MATERIAL SAFETY DATA SHEET

Teratogenicity: Not known to be teratogenic.
Mutagenicity: Not known to be mutagenic.

12. ECOLOGICAL INFORMATION

Degradability: Principal metabolite in soil is 4, 4-dibromobenzilic acid. Low mobility in soil.

ECOTOXICOLOGY: (Technical)

Birds:

LD ₅₀ :	Japanese quail	>2000 mg/kg
LC ₅₀ (8 day)	pekin ducks	600 mg/kg diet
LC ₅₀ (8 day)	Japanese quail	1000 mg/kg diet

Fish:

LC ₅₀ (96 hours):	rainbow trout	0.35 mg/ℓ
	Bluegill sunfish	0.5 mg/ℓ
	Carp	2.4 mg/ℓ

Daphnia: LC₅₀ (48 hours): 0.17 mg/ℓ

Bees: Not toxic to bees. LC₅₀: (24h): 0.183 mg/bee.

Earthworms: LC₅₀ (14 days): > 1000 mg/kg soil.

13. DISPOSAL CONSIDERATION

Pesticide disposal: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product that cannot be reused or reprocessed should be disposed of in a landfill approved for pesticide disposal. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Package product wastes: Emptied containers retain vapour and product residues. Observe all labelled safeguards. **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.

Destroy the emptied containers by perforation and flattening. Bury in an approved dump site. Do not re-use the empty container for any other purpose.

14. TRANSPORT INFORMATION

UN No.: 1993
Road Transport ADR/IRD:
 Class: 3
 Packaging group: III
 Shipping name: **Flammable Liquid, N.O.S (contains Bromopropylate & xylene)**

Air Transport ICAO/IATA:
 Class: 3
 Packaging group: III

Shipping name: **Flammable Liquid, N.O.S (contains Bromopropylate & xylene)**

Maritime Transport IMDG/IMO:

Class: 3
 Packaging group: III
 Shipping name: **Flammable Liquid, N.O.S (contains Bromopropylate & xylene)**

15. REGULATORY INFORMATION

Symbol: T, N, Xi, F
Indication of danger: Toxic, Irritating & Flammable substance

Risk phrases:

- R 10** Flammable.
- R 36/38** Irritating to eyes and skin.
- R 51/53** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R 61** May cause harm to the unborn child.

Safety phrases:

- S 1/2** Keep locked up and out of the reach of children.
- S 13** Keep away from food, drink and animal feeding stuffs.
- S 20/21** When using do not eat, drink or smoke.
- S 24/25** Avoid contact with skin and eyes.
- S 36/37/39** Wear suitable protective clothing, gloves and eye/face protection.
- S 61** Avoid release to the environment. Refer to special instructions / safety data sheet.
- S 62** If swallowed do not induce vomiting: seek medical advice immediately and show this container or label.

16. OTHER INFORMATION

Packing and Labelling: Packed in 1, 5, 10, 20, 25 & 200 litres fluorinated plastic containers and labelled according to the 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 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.

UNIVERSAL RIPPLE 500 EC

MATERIAL SAFETY DATA SHEET

END OF DOCUMENT

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For detailed information on revision, contact the
Registration holder.