

## BROMASTOP 500 SC

## SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** BROMASTOP 500 SC

**Other identifier:** Bromacil 500 SC

**Recommended use:** Herbicide

**Restrictions on use:** Agriculture

**Supplier:** Villa Crop Protection (Pty) Ltd

**Co. Reg. No.:** 1992/002474/07

PO Box 10413,

Aston Manor, 1630, South Africa

**Telephone:** (011) 396 2233

**Fax:** (011) 396 4666

**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)

**Emergency telephone numbers:**

**24 Hr Transport / Spill emergency no:**

(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

### 2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP]  
EU & SANS 10234:2008

Hazard classes	Hazard categories	H-statements
<b>Health</b>		
Oral	Acute Tox. 4	H302
Dermal	Acute Tox. 4	H312
	Skin Irrit. 3	H316
Eye	Eye Dam. 1	H318
Carcinogenicity	Carc. 2	H351
<b>Environment</b>		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

**The most important adverse effects:**

**Physiochemical effects:** None known

**Human health effects:**

Harmful if swallowed (Acute Tox. 4).

Harmful in contact with skin (Acute Tox. 4).

Causes mild skin irritation (Skin Irrit. 3).

Causes serious eye damage (Eye Dam. 1).

Suspected of causing cancer (Carc. 2).

### Label elements:



**Signal word:** Danger

**Hazard statements:**

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H316: Causes mild skin irritation.

H318: Causes serious eye damage.

H351: Suspected of causing cancer.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

**Precautionary statements:**

P203: Obtain, read and follow all safety instructions before use.

P264+P265: Wash hands and face thoroughly after handling. Do not touch eyes.

P270: Do not eat, drink or smoke when using this product.

P273: Avoid release into the environment.

P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.

P301+P317: IF SWALLOWED: Get medical help.

P302+P352: IF ON SKIN: Wash with plenty water and non-abrasive soap.

P305+P354+P338: IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P318: IF exposed or concerned, get medical advice.

P321: See label for specific treatment.

P330: Rinse mouth.

P332+P317: If skin irritation occurs get medical help.

P362+P364: Take off contaminated clothing and wash it before reuse.

P391: Collect spillage.

P405: Store locked up.

P501: Dispose of content/container to suitable landfill in accordance with local regulations.

**Other hazards:**

None known.

**Toxicity:**

Classification according to GHS: Category 4

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance / Mixture:** Mixture

**Composition:**

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Chemical name	CAS	Conc. (m/v)	Classification EC 1272/2008
Bromacil	314-40-9	52.63 %	Acute Tox. 4 H302 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
Polyoxyethylene lauryl ether	9002-92-0	< 10%	Acute Tox. 4 H302 Eye Irrit. 2 H319 Aquatic Chronic 3 H412
Sodium dodecyl benzene sulfonate	25155-30-0	< 10%	Acute Tox. 4 H302 Skin Irrit. 2 H315 Eye Dam. 1 H318
Ethylene glycol	107-21-1	< 5%	Acute Tox. 4 H302
Tributyl phosphate	126-73-8	< 5%	Acute Tox. 4 H302 Skin Irrit. 2 H315 Carc. 2 H351
Hydrogen chloride	7647-01	< 5%	Skin Corr. 1B H314 STOT SE 3 H335

### 4. FIRST AID MEASURES

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.

**Inhalation:** Remove person from contaminated area to fresh air. If breathing has stopped, perform artificial respiration and administer oxygen. Avoid mouth-to-mouth resuscitation. Keep person warm and at rest. **Seek medical advice immediately.**

**Skin:** Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **Obtain medical attention if irritation persists.**

**Eyes:** Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**

**Ingestion:** Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water. Establish and maintain airway. Treat respiratory difficulty with artificial respiration and oxygen. Qualified medical

personnel should perform administration of gastric lavage or oxygen. **Seek medical advice immediately.**

**Anticipated acute effects:** Harmful if swallowed.

Harmful in contact with skin. Causes mild skin irritation. Causes serious eye damage.

**Anticipated delayed effects:** Suspected of causing cancer.

**Most important symptoms / effects:** None known.

**Advice to physician:** Treat symptomatically and supportively. No specific antidote known. Keep patient prone and quiet. Start artificial respiration immediately, if patient is breathing never give anything by mouth to an unconscious person.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.

**Unsuitable Extinguishing Media:** High volume water jet. Use a water jet only to cool heated containers.

**Specific hazards:** Product is not explosive, but dust/air mixture may be explosive in the presence of an ignition source. Fire may produce irritating and/or toxic vapours, mists or other products of combustion.

**Special fire-fighting procedures:** Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Remain upwind of fire. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site).

**Personal protective equipment:** Wear NIOSH / MSHA approved self-contained breathing apparatus and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Avoid contact with eyes and skin. Do not breathe in spray mist or dust / fumes / vapours. Ventilate area of spill or leak, especially in contained areas.

**Protective equipment:** Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

**Emergency procedures:** Alert firefighting personnel, evacuate unprotected personnel and animals.

**Environmental Precautions:** Prevent spilled product from entering sewers, waterways or ground water. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high-water mark. This

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product is classified as very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water / Environmental Affairs.

**Methods and Materials for Containment:** Contain spilled product by diking area with sand or earth.

**Methods and Materials for Clean-up:** Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

### 7. HANDLING AND STORAGE

#### Handling:

**Precautions for safe handling:** Harmful if swallowed. Avoid contact with skin and eyes. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

**General occupational hygiene:** Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used.

#### Storage:

**Conditions for safe storage:** Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed in an isolated, dry, cool and well-ventilated area. Do not store near heat, open flame, sources of ignition or hot surfaces. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

**Incompatible substances and mixtures:** Refer to product label.

**Packaging material:** Plastic containers.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Permissible concentration:**

Components	Exposure limits	Type of exposure limit	Source
Tributyl phosphate	0.2 ppm	TWA (8-hours)	<a href="http://www.osha.gov">www.osha.gov</a>
Hydrogen chloride	0.3 ppm	TWA (8-hours)	<a href="http://www.osha.gov">www.osha.gov</a>

#### Engineering Controls:

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. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.

#### Personal Protective Equipment:

**Respiratory Protection:** For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved, air-purifying respirator with cartridges / canisters approved for organic vapours.

**Hand Protection:** The use of chemically protective impervious gloves is recommended to prevent against skin contact.

**Eye Protection:** The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

**Skin and Body Protection:** Employees must wear appropriate protective impervious clothing, rubber boots, hat and equipment to prevent repeated or prolonged skin contact with this substance.

**Emergency eyewash:** 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 yellow liquid.

**Odour:** Slight aromatic.

**Odour threshold:** Not available.

**pH (1% aqueous dilution):** 6.5

**Melting point:** Not available.

**Freezing Point:** 0 °C.

**Boiling Point:** Not available.

**Flash Point:** Not available.

**Flammability:** Not flammable.

**Upper / lower explosion limits:** Not available.

**Vapour Pressure (mm Hg):** Not available.

**Relative Vapour Density:** Not available.

**Density / Relative density:** 1.00 g/ml.

**Solubility:** Soluble in water.

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n-octanol / water partition coefficient: Not available.  
Auto-ignition temperature: Not available.  
Decomposition temperature: Not available.  
Viscosity: Not available.

### 10. STABILITY AND REACTIVITY

**Chemical stability:** The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50 °C, preferably below 30 °C, and not for prolonged periods in direct sunlight.

**Reactivity:** None known.

**Possibility of hazardous reactions:** Unlikely to occur.

**Conditions to avoid:** Extreme heat or exposure to flames.

**Incompatible materials:** The product is incompatible with strong oxidising agents.

**Hazardous decomposition products:** Thermal decomposition may emit toxic fumes of CO<sub>2</sub>, NO and smoke. Occasionally hydrogen cyanide gas in reduced atmospheres. Nitrogen and its compounds sometimes oxides of nitrogen. Hydrogen chloride gas and other compound of chlorine. Hydrogen fluoride gas, other compound of fluorine and water.

### 11. TOXICOLOGICAL INFORMATION

#### ACUTE TOXICITY:

Calculated according to GHS

**Oral LD<sub>50</sub>** (24h) 1552.95 mg/kg (rat)

**Dermal LD<sub>50</sub>** > 5000 mg/kg (rabbit)

**Inhalation LC<sub>50</sub>** (4h) 3.84 mg/l (rat)

**Skin Irritation / Corrosion:** Harmful in contact with skin. Causes mild skin irritation.

**Eye Damage / Irritation:** Causes serious eye damage.

**Skin Sensitization:** Not classified.

**Respiratory Sensitization:** Not classified.

**Reproductive cell mutagenicity:** Not classified.

**Carcinogenicity:** Suspected of causing cancer.

**Reproductive toxicity:** Not classified.

**Specific target organ toxicity – single exposure:** Not classified.

**Specific target organ toxicity – repeated exposure:** Not classified.

**Aspiration hazard:** Not classified.

**Chronic Effects:** Not classified.

#### POTENTIAL ADVERSE EFFECTS:

**Inhalation:** Not classified.

**Ingestion:** Harmful if swallowed.

### 12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms.

### ECOTOXICITY DATA:

**Active ingredient: Bromacil**

#### Fish:

LC <sub>50</sub> (96 h)	Rainbow trout	36 mg/l
	Bluegill sunfish	127 mg/l

#### Daphnia:

EC <sub>50</sub> (48 h)		121 mg/l
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#### Algae:

EC <sub>50</sub>	<i>Selenastrum capricornutum</i>	0.0068 mg/l
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#### Birds:

Acute oral LD <sub>50</sub>	Bobwhite quail	2250 mg/kg
Dietary LC <sub>50</sub> (8d)	Mallard ducks	>10000 mg/kg diet
	Bobwhite quail	>10000 mg/kg diet

#### Bees:

LD <sub>50</sub> contact		>50 µg/bee
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### ENVIRONMENTAL EFFECTS:

**Based on information for the formulation / active ingredient: Bromacil**

**Animals:** The principal metabolite is 5-bromo-3-sec-butyl-6-hydroxymethyluracil.

**Plants:** Not determined.

**Persistence and degradability:** Duration of residual activity in soil is c. 5 mo.

**Bio-accumulative potential:** Not determined.

**Mobility in soil:** Not determined.

**Other adverse effects:** Not determined.

### 13. DISPOSAL CONSIDERATIONS

**Waste:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product 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. The product may be taken to a registered waste disposal site or incineration plant.

**Container:** Emptied containers retain product residues. Do not re-use the empty container for any other purpose. Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter **RINSE THE EMPTY CONTAINER THREE TIMES** in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank.

Puncture the triple rinsed container and dispose of via an approved collector or recycler ([www.croplife.co.za](http://www.croplife.co.za)). Do not bury, burn or donate the container to any other parties that may use it as a container for food or



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beverages. Observe all labelled safeguards until container is destroyed.

### 14. TRANSPORT INFORMATION

**UN Number:** 3082  
**Road Transport ADR / ORD:**  
 Class: 9  
 Packaging group: III  
 UN Proper Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (bromacil 500 g/l)

**Maritime Transport IMDG / IMO:**  
 Class: 9  
 Packaging group: III  
 UN Proper Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (bromacil 500 g/l)

**Marine pollutant (Y/N):** Yes

**Air Transport IATA / ICAO:**  
 Class: 9  
 Packaging group: III  
 UN Proper Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (bromacil 500 g/l)

**Special / Environmental Precautions:** Wedge drums tightly to avoid movement.

**Transport in bulk:** Refer to MARPOL 73/78, Annex II and the IBC code.

### 15. REGULATORY INFORMATION

**Safety, health and environmental regulations / legislation for the mixture:**

OHS 1993 Regulations for Hazardous Chemical Substances.

**Relevant information regarding restrictions:** None.

**EU regulation:** Regulation EC1272/2008 (EU-GHS/CLP)

**Other national regulations:** None.

**Chemical Safety Assessment carried out?** No

### 16. OTHER INFORMATION

**Packaging:** Packed in 1, 2, 5, 10, 20, 25, 50 and 100 litre plastic containers labelled according to South African regulations and guidelines.

**Other hazard statements, abbreviations and explanations:**

**H302:** Harmful if swallowed.

**H319:** Causes serious eye irritation.

**H335:** May cause respiratory irritation.

**H412:** Harmful to aquatic life with long lasting effects.

**IATA:** International Air Transport Association.

**IBC:** International Bulk Chemical.

**ICAO:** International Civil Aviation Organization.

**IMDG:** International Maritime Dangerous Goods

**IMO:** International Maritime Organization.

**LD<sub>50</sub> value:** The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.

**OEL/RL:** Occupational exposure limit-recommended limit.

**TWA:** Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.

**ST/STEL:** Short-term exposure limits.

**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 and 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.

### END OF DOCUMENT

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For detailed information on revisions, contact the Registration holder.