

ASTRON® 480 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ASTRON® 480 SC
Other identifier: Mesotrione 480 SC
Recommended use: Herbicide
Restrictions on use: Agriculture

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:

Bateleur: +27 86 199 9071
 (Client: Villa Crop Protection)

Poisoning:
 Griffon Poison Information Centre +27 82 446 8946
 Western Cape Poisons Tel. Service +27 861 555 777
 Tygerberg Hospital +27 21 931 6129

2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
Health		
Dermal	Acute Tox. 5	H313
Inhalation	Acute Tox. 5	H333
Environment		
Aquatic Acute	Aquatic Acute 1	H400
Aquatic Chronic	Aquatic Chronic 1	H410

The most important adverse effects:

Physicochemical effects:

None known.

Human health effects:

None known.

Label elements:



Signal word: Warning.

Hazard statements:

H313: May be harmful in contact with skin.
 H333: May be harmful if inhaled.
 H400: Very toxic to aquatic life.
 H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P273: Avoid release into the environment.
 P391: Collect spillage.
 P501: Dispose of contents/container to suitable landfill in accordance with local regulations.

Special labelling of certain mixtures:

None known.

Other hazards:

None known.

Toxicity:

Classification according to GHS: Cat. 5
 Classification according to WHO: Cat. III
 Classification according to GPIC: Cat. Not available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Mesotrione TC	104206-82-8	48%	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Ethylene Glycol	107-21-1	<6%	Acute Tox. 4 (H302)
Alcohols, C9-11-iso-C10-rich, ethoxylated	78330-20-8	<1%	Acute Tox. 4 (H302) Eye Dam. 1 (H318)
1,2-Benzisothiazoline-3-one	2634-33-5	<1%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400)

4. FIRST AID MEASURES

Inhalation: Remove the source of contamination or move person to fresh air. If cough or other respiratory symptoms develop, consult medical personnel. If breathing stops, administer artificial respiration and immediately seek medical attention.

Skin: Remove contaminated clothing, shoes and leather goods and do not re-use until thoroughly cleaned or

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laundered. Wash skin with non-abrasive soap and plenty of water. Obtain medical attention if irritation persists.

Eyes: Immediately flush contamination out of eyes with a stream of clean water for at least 15-20 minutes, holding the eyelid(s) open. If irritation persists, obtain medical attention.

Ingestion: Have person drink a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control centre or doctor. Never give anything by mouth to an unconscious person. Obtain medical attention immediately.

Anticipated acute effects: None known.

Anticipated delayed effects: None known.

Most important symptoms/effects: None known.

Advice to physician: There is no specific antidote available. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with carbon dioxide, dry chemical, alcohol-resistant foam and water fog.

Unsuitable Extinguishing Media: High volume water jet, as this will spread the fire. Use a water jet only to cool heated containers.

Specific hazards: none known.

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. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove containers 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 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. This product is classified to be 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 damp earth.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite, damp 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: Avoid contact with eyes and skin. 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 product. 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 the product in its original labelled container, tightly closed in an isolated dry, cool and well-ventilated area. Do not 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
Ethylene glycol	10 mg/m ³	TWA OEL-RL	HCS reg., 1995

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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: Use chemical resistant (impervious) rubber gloves to prevent skin contact.

Eye Protection: Use chemical resistant safety goggles or face shield to prevent eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Employee must wear appropriate protective (impervious) clothing e.g. coveralls, boots, hat and other equipment to prevent repeated or prolonged skin contact with this product.

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: Off-white, suspension concentrated liquid.

Odour: Typical pesticide smell.

pH (1% aqueous dilution): 4.6 to 5.0

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Non-flammable.

Upper/lower explosion limits: Not explosive.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density/Relative density: 1.121 g/ml.

Solubility: Soluble in water.

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 2 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: None known.

Conditions to Avoid: Keep the product in a cool, dry place, at below 30°C. Protect from sunlight, open flame and sources of heat. The product does not polymerize.

Incompatible Materials: None known.

Hazardous Decomposition Products: Does not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Formulated product.

Calculated according to WHO.

Oral LD₅₀ (24 h) rat >9700 mg/kg.

Dermal LD₅₀ (24 h) rat >4400 mg/kg.

Calculated according to GHS.

Oral LD₅₀ (24 h) rat: Unclassified.

Dermal LD₅₀ (24 h) rat >4400 mg/kg.

Inhalation LC₅₀ (4 h) rat 10,4 mg/l.

Skin Irritation/Corrosion: Not available.

Eye Damage/Irritation: Not available.

Skin Sensitization: Not available.

Respiratory Sensitization: Not available.

Reproductive cell mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Specific target organ toxicity – single exposure: Not available.

Specific target organ toxicity – repeated exposure: Not available.

Aspiration hazard: Not available.

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Inhalation: May be harmful if inhaled.

Eye contact: Non-irritant to eyes.

Skin contact: May be harmful in contact with skin.

Ingestion: Not available.

12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms with long lasting effects.

ECOTOXICITY DATA: Active ingredient:

Mesotrione.

Fish:

LC ₅₀ (96 h)	Bluegill sunfish & rainbow trout	>120 mg/l.
	Common carp	>97.1 mg/l.

Daphnia:

LC₅₀ (48 h, static) >900 mg/l.

Algae: *Pseudokirchneriella* 3.5 mg/l.

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EC₅₀ (120 h) *subcapitata*

Birds:
 Acute oral LD₅₀ Bobwhite quail & >2000 mg/kg.
 Dietary LC₅₀ mallard ducks >5200 mg/kg.

Bees:
 Formulated
 (LD₅₀, mg/bee) (oral) >11 mg/bee.
 (contact) >100 mg/bee.
 >2000 mg/kg.

Worms:
 LD₅₀ (14 d)

Plants: Not determined.
ENVIRONMENTAL EFFECTS:
Animal: Extensively absorbed (70 % in 72 h), widely distributed and excreted (up to 70 % in 72 h), mainly via urine. Limited metabolism occurs by hydroxylation.
Persistence and degradability: In aerobic soil, dissipates rapidly, mainly due to microbial activity, and is extensively mineralised (38%-81% after 120 d).
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. Where possible, recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Container: Emptied containers retain vapour and product residues. Do not re-use the empty container for any other purpose. Triple rinse empty containers by inverting 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 one third of that of the container. Add the rinsing's to the contents of the spray tank before recycling or destroying the container in the prescribed manner. Destroy the container by perforating and flattening and dispose of through an approved waste dumpsite, incineration plant or recycling company. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number: 3082
Road Transport ADR/IRD:
 Class: 9

Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, N.O.S. (Mesotrione 480 g/l)

Maritime Transport IMDG/IMO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, N.O.S. (Mesotrione 480 g/l)

Marine Pollutant (Y/N): YES
Air Transport IATA/ICAO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, N.O.S. (Mesotrione 480 g/l)

Special/Environmental Precautions: None known.
Transport in bulk (according to MARPOL 73/78, Annex II and the IBC code): Not available.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:
 OSHA 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, 5, 10, 20 and 25 litres plastic containers and labelled according to South African regulations and guidelines.

Additional H statements (formulants):

H302: Harmful if swallowed.

H315: Causes skin irritation.

H317: May cause an allergic reaction.

H318: Causes serious eye damage.

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

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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.