

VILLA LOTUS 480 SL

MATERIAL SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: LOTUS 480 SL
 Herbicide
UN No.: 3082
Supplier: Villa Crop Protection (Pty) Ltd.
 PO Box 10413,
 Aston Manor, 1630, South Africa
Telephone: (011) 396 2233
Fax: (011) 396 4777
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 +27 861 555 777
 Tygerberg Hospital +27 21 931 6129

2. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name: Dicamba
Chemical Name: 3, 6-dichloro-o-anisic acid
(IUPAC)
CAS No.: [1918-00-9]
Chemical family: Benzoic acid (auxin)
Chemical formula: C₈H₆Cl₂O₃
Molecular weight: 221.0
Use: Selective systemic herbicide absorbed by the leaves and roots, with ready translocation throughout the plant via both the symplastic and apoplastic systems.
Formulation: Dicamba 480 g/l. Soluble Liquid

Component	CAS No.	Content
Dicamba (Technical)	1918-00-9	48 %
Inerts	N/A	max. 52 %

Symbol: Xi, N
Indication of danger: irritating, environmentally hazardous substance
Risk Phrases: R22, R36, R38, R52

3. HAZARD IDENTIFICATION

Toxicity class: WHO (a.i) III; EPA (formulation) III. A low toxicity herbicide.
Skin: May cause mild irritation.
 No adverse effects expected when recommended use instructions are followed.
Eye contact: May cause mild eye irritation.
Ingestion: May be harmful in case of ingestion.
Inhalation: Can cause irritation.

4. FIRST AID MEASURES AND PRECAUTIONS

Inhalation: Remove source of contamination, or move victim to fresh air. Keep affected person warm and at rest. Treat symptomatically and supportively. Get medical attention if effects persist.
Skin contact: Move the victim to fresh air and remove all contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with water and non-abrasive soap. Do not rub the skin. If irritation persists, seek medical advice.
Eye contact: Immediately flush the eyes with clean, gently flowing lukewarm water or saline solution for 20 minutes, holding the eyelid(s) open. If irritation persists, seek medical advice.
Ingestion: Have victim rinse mouth thoroughly with water and give some water to drink. Do not induce vomiting. Seek medical advice if irritation persists.
Advice to physician: There is no specific antidote. Treat symptomatically and supportively as and when required.

5. FIRE FIGHTING MEASURES

Extinguishing agents: Water fog, foam, carbon dioxide or dry chemical.
Hazardous products of combustion: Oxides of carbon, oxides of nitrogen and hydrogen cyanide gas.
Firefighting: Remove spectators from surrounding area. Remove container from fire area if possible. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapours and fumes from burning materials.
Personal protective equipment: Recommended use of self-contained breathing apparatus and full protective equipment.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions: Avoid contact with skin and eyes. Do not breathe spray or fumes. For personal protection see Section 8.
Environmental precautions: Do not allow entering of drains or watercourses. 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.
Occupational spill: In the event of a major spill, prevent spillage from entering drains or water course. Wear full protective clothing including eye/face protection. Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect

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recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Launder protective clothing before storage or re-use.

Eye protection: Wear protective glasses or goggles and face shield.

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.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Avoid contact with eyes, prolonged contact with skin, and inhalation of spray and fumes. Handle product with caution. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Remove clothing immediately if the herbicide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Operators should change and wash clothing after use. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage: Store in its original, labelled and closed container in dry, cool, shaded, well-ventilated area, away from heat, sparks and other sources of ignition. Do not store with other pesticides, fertilizer, seeds, foodstuffs and water supplies. Store away from incompatible substances. Product is incompatible with acids, bases and strong oxidising agents. Keep out of reach of unauthorized persons, children and animals. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

EXPOSURE LIMITS: No exposure standards set.

ENGINEERING CONTROLS: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

PERSONAL PROTECTIVE EQUIPMENT: If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

Respirator: It is usually safe to use the product without a mask or respirator. If the product is used in dusty or confined conditions, a class P1 dust mask or respirator suitable for protection from dusts and mists of pesticides is adequate. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

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

Gloves: Employee must wear appropriate elbow-length PVC gloves to prevent contact with this substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquid

Odour: Mild amine odour

Boiling Point: ~108°C (100kPa)

Solubility in water: Completely miscible.

Flash point: Not available

Vapour pressure: 2.37 kPa (20 °C)

10. STABILITY AND REACTIVITY

Stability: Stable under normal storage conditions.

Hazardous Polymerization: Will not occur.

Incompatible materials: Strong acids, strong bases and strong oxidising agents.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀: 1707 mg/kg in rats (Technical)

Acute dermal LD₅₀: > 2 000 mg/kg in rats (Technical)

Inhalation: LC₅₀ (4 hours): male rats 4.44; female 5.19 mg/l (Technical)

Acute skin irritation: Mild irritant.

Acute eye irritation: Mild irritant.

Carcinogenicity: Non-carcinogenic

Teratogenicity: Non-teratogenic

Mutagenicity: Non-mutagenic

Reproductivity: **Dicamba** is unlikely to cause reproductive effects in humans at expected exposure levels.

12. ECOLOGICAL INFORMATION

Degradability: **Dicamba** is moderately persistent in soil, with estimated half-life of 1 to 4 weeks. Soil micro-organisms are primarily responsible for breakdown. Under conditions suitable for rapid metabolism, the half-life is less than 2 weeks.

Mobility: **Dicamba** does not bind to soil particles and is highly soluble in water. It is therefore highly mobile in soil and may contaminate groundwater. In humid areas, **Dicamba** will be leached from the soil in 3-12 weeks.

ECOTOXICOLOGY:

Birds: **Practically non-toxic**

LD₅₀ Mallard ducks: 2000 mg/kg

LC₅₀ Mallard duck & Bobwhite quail: > 10000 mg/kg diet

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Fish: Low toxicity: LC₅₀ (96 hours): Rainbow trout & bluegill sunfish: 135 mg/ℓ

Bees: Not toxic
 LD₅₀ > 100 µg/bee

Daphnia: LC₅₀ (48 h): 110 mg/ℓ

Algae: LC₅₀ (depending on species) 41 to >250 mg/ℓ

Other beneficial organisms: Poses little threat to wildlife.

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 re-used or reprocessed. Never pour untreated waste or surplus products 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.

Container disposal: Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

TRIPLE RINSE empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow to drain 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 in the prescribed manner.

Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils.

Comply with local legislation applying to waste disposal.

14. TRANSPORT INFORMATION

UN NUMBER: 3082

Road Transport ADR/IRD:

Class: 9
 Packing group: III
 Shipping name: Environmentally hazardous substance, liquid, N.O.S.

Air Transport ICAO/IATA:

Class: 9
 Packing group: III
 Shipping name: Environmentally hazardous substance, liquid, N.O.S.

Maritime Transport IMDG/IMO:

Class: 9
 Packing group: III
 Shipping name: Environmentally hazardous substance, liquid, N.O.S.

15. REGULATORY INFORMATION

Symbol: Xi, N
Indication: Irritating, Environmentally dangerous substance.

Risk phrases:

R 22 Harmful if swallowed
R 36/38 Irritating to eyes and skin.
R 52 Harmful to aquatic organisms.

Safety phrases:

S 2 Keep out of reach children.
S 2425 Avoid contact with skin and eyes.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 61 Avoid release to the environment.

16. OTHER INFORMATION

Packaging: Packed in 5, 20, 25, 100 and 200 litres plastic containers and drums and labelled according to 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.

END OF DOCUMENT

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For detailed information on revisions, contact the Registration holder.