

VILLA 2,4-DB 400 SL

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: VILLA 2,4-DB 400 SL
Other identifier: 2,4-DB-Sodium salt 400 SL
Recommended use: Herbicide
Restrictions on use: Agriculture

Supplier: Villa Crop Protection (Pty) Ltd.
PO Box 10413
Aston Manor, 1630, 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. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
Health		
Oral	Acute Tox. 4	H302
Dermal	Skin Irrit. 2	H315
Skin Sensitizer	Skin sens. 1	H317
Eye	Eye dam. 1	H318
Reproductive Toxicity	Repr. 1B	H360D
Environment		
Aquatic chronic	Aquatic chronic 2	H411

The most important adverse effects:

Physiochemical effects:

None known.

Human health effects:

Harmful if swallowed.

Causes skin irritation.

Causes serious eye damage.

May damage fertility or the unborn child.

Label elements:



Signal word: Danger.

Hazard statements:

H302: Harmful if swallowed.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H360D: May damage fertility or the unborn child.

H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P202: Do not handle until all safety precautions have been read and understood.

P264: Wash hands and face thoroughly after handling.

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

P273: Avoid release to the environment.

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

P302/352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.

P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308/313: If exposed or concerned: Get medical attention.

P310: Immediately call a POISON CENTRE.

P332/313: If skin irritation occurs: get medical advice.

P333/313: If skin irritation or rash occurs: Get medical advice.

P362/364: 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.

Special labelling of certain mixtures:

None known.

Other hazards:

None known.

Toxicity:

Classification according to GHS: Cat. 4

Classification according to WHO: Cat. II

Classification according to GPIC (Active): Cat. III

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

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Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
2,4-DB-sodium (98.0% min)	10433-59-7	40%	Acute Tox. 4 (H302) Aquatic Chronic 2 (H411)
Tristyrylphenol Ethoxylated	99734-09-5	<10%	Aquatic Chronic 3 (H412)
N-Methyl-2-pyrrolidone	872-50-4	<10%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Repr. 1B (H360D)

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 and consult a doctor.

Inhalation: Remove source of contamination, or move person to fresh air as rapidly as possible. Keep affected person calm and reassured. Treat symptomatically and supportively. Only qualified personnel should perform administration of oxygen. Get medical attention immediately if condition persists.

Skin: If irritation occurs, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts). Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Do not rub the skin. If irritation persists, seek medical advice immediately.

Eyes: Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. Take care not to rinse contaminated water into the unaffected eye or onto the face. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention immediately.**

Ingestion: Seek medical advice immediately. Only induce vomiting if advised to by medical personnel. Do not give anything by mouth to an unconscious person.

Anticipated acute effects:

Harmful if swallowed.
 Causes skin irritation.
 Causes serious eye damage.
 May cause an allergic skin reaction.

Anticipated delayed effects:

May damage fertility or the unborn child.

Most important symptoms/effects:

Causes serious eye damage.

Advice to physician: There is no specific antidote. Treat symptomatically and supportively as and when

required. Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish small fires with carbon dioxide or dry powder and large fires with water fog or alcohol-resistant foam.

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

Specific hazards: In case of fire and/or explosion toxic hazardous gases may be released. Carbon monoxide and Asphyxiates may form as well.

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 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 bunker gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with eyes and skin. 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 toxic to aquatic organisms with long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into water courses 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, earth or lime.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, earth or other appropriate non-combustible 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

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material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. Add the solution to the drums already collected. Open burning or dumping of this material is prohibited. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Avoid contact with eyes and skin. Harmful if swallowed. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly 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 out of reach of unauthorised persons, children and animals. Store locked up, 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. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to label.

Packaging material: Containers and drums.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration: No occupational exposure limits has been determined for the significant ingredients in this product.

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.

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

Eye Protection: Wear a face shield or safety goggles when handling the concentrate and when applying the product. Contact lenses are not protective eye devices.

Skin and Body Protection: The use of impervious protective clothing e.g. coveralls, boots and hat, is recommended to prevent skin contact with this mixture.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this mixture; 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: Dark brown liquid.

Odour: Slight phenoxy odour.

pH (1% aqueous dilution): 6.0 - 9.0

Melting point: Not available.

Freezing Point: 0°C.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Not available.

Upper/lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density: 1.10 g/cm³.

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: Excessive heat. Do not store near heat or flame.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Under fire conditions, may produce gases such as hydrogen chloride, nitrogen oxides and carbon oxides.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Calculated according to GHS (conforms to WHO).

Oral LD₅₀ (24 h) rat >1800 mg/kg.

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Dermal LD₅₀ (24 h) rat > 17500 mg/kg.
Inhalation LC₅₀ No data available. Not toxic according to H-phrases.
Skin Irritation/Corrosion: Causes skin irritation.
Eye Damage/Irritation: Causes serious eye damage.
Skin Sensitization: May cause an allergic skin reaction.
Respiratory Sensitization: Not available.
Reproductive cell mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: May damage fertility or the unborn child.
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: Not available.
Skin contact: Due to the inert formulants, this product may cause irritation to skin. May cause an allergic skin reaction.
Eye contact: May cause serious damage to eyes.
Ingestion: Harmful if swallowed.

12. ECOLOGICAL INFORMATION

This product is toxic to aquatic organisms and may cause long lasting effects in the aquatic environment.

ECOTOXICITY DATA: Based on the active ingredient 2,4-DB-Sodium salt.

Fish:			
LC ₅₀ (96 h)	Rainbow trout c.		17.8 mg/l.
Algae:			
ErC ₅₀ (72 h)	<i>Selenastrum capricornutum</i>		>34 mg/l.
	<i>Scenedesmus subspicatus</i>		>48.1 mg/l.
EbC ₅₀ (72 h)	<i>Selenastrum capricornutum</i>		54.6 mg/l.
	<i>Scenedesmus subspicatus</i>		23.2 mg/l.

Plants: In susceptible plants, rapidly undergoes β-oxidation to 2,4-D, which is then degraded to 2,4-dichlorophenol, followed by ring hydroxylation and ring opening. In tolerant plants, β-oxidation to 2,4-D is very low.

ENVIRONMENTAL EFFECTS:

Animal: Rapidly absorbed.
Persistence and degradability: In soil, microbial degradation leads to the formation of 2,4-D, which subsequently undergoes further degradation. Aerobic DT₅₀ (lab., 20°C) 1-2 d (4 UK sites).
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 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 a third of that of the container. Add the rinsings to the contents of the spray tank before recycling or destroying the container in the prescribed manner. Dispose of via an approved collector or recycler (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 beverages. 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, Liquid, N.O.S.
(2,4-DB-Sodium salt 400 SL)
Maritime Transport IMDG/IMO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S.
(2,4-DB-Sodium salt 400 SL)
Marine Pollutant (Y/N): Yes, Considered a marine pollutant.
Air transport IATA/ICAO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S.
(2,4-DB-Sodium salt 400 SL)
Special/Environmental Precautions: None known.
Transport in bulk (according to MARPOL 73/78, Annex II and the IBC code): Not available.

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15. REGULATORY INFORMATION

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

OHSA 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 4, 5, 8, 10, 20, 50 and 100 litres containers and drums and labelled according to South African regulations and guidelines.

Additional H-statements (formulants)

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

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

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.