

VILLA CALCIUM ARSENATE

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CALCIUM ARSENATE
Other identifier: Calcium Arsenate 855 g/kg
Recommended use: Plant Growth Regulator
Restrictions on use: Agriculture

Supplier: Villa Crop Protection (Pty) Ltd
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. 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. 2	H301
Dermal	Acute Tox. 5	H311
	Skin Irrit. 2	H315
Eye	Eye Dam. 1	H318
Specific Target Organ Toxicity Single Exposure	STOT SE 3	H335
Carcinogen	Carc. 1A	H350
Environment		
Aquatic chronic	Aquatic Chronic 1	H410

The most important adverse effects:

Physiochemical effects:

None known.

Human health effects:

Fatal if swallowed.

Causes serious eye damage.

May cause cancer.

Label elements:



Signal word: Danger

Hazard statements:

H300: Fatal if swallowed.

H313: May be harmful in contact with skin.

H315: Causes skin irritation.

H318: Causes serious eye damage.

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

Precautionary statements:

P264: Wash skin and eyes 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 chemical safety goggles.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER.

P302/352: IF ON SKIN: Wash with plenty of water and 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.

P310: Immediately call a POISON CENTRE.

P330: Rinse mouth.

P332/313: If skin irritation 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 contents/container in accordance with local regulations.

Special labelling of certain mixtures:

None known.

Other hazards:

None known.

Toxicity:

Classification according to GHS: Category 2

Classification according to WHO: Category Ib

VILLA CALCIUM ARSENATE

SAFETY DATA SHEET

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Composition:

Chemical Name	CAS	Conc. (m/m %)	Classification EC 1272/2008
Calcium Arsenate	7778-44-1	85.5	Acute Tox. 3 (H301) Acute Tox. 3 (H331) Carc. 1A (H350) Aquatic Chronic 1 (H410)
Calcium hydroxide	1305-62-0	< 15	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT SE 3 (H335)
Naphthalene Sulfonate	26264-06-2	< 1	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2B (H320) STOT SE 3 (H335)

4. FIRST AID MEASURES

Remove the victim from the area of exposure. The airway should be kept clear to maintain respiration, particularly when the patient is unconscious or has vomited. The mouth and pharynx should be cleared and dentures removed. The jaw should be supported, and the patient placed in a face down position with the head down and turned to one side, with the tongue drawn forward. First aid should be performed by qualified medical personnel and should include, if necessary, mouth-to-nose respiration and cardiac massage. **Immediately consult a doctor.**

Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation persists.

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: Immediately seek medical attention. 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.

Anticipated acute effects:

Fatal if swallowed.

May be harmful in contact with skin.

Causes skin irritation.

Causes serious eye damage.

Anticipated delayed effects: None known.

Most important symptoms/effects: None known.

Advice to physician: Treat symptomatically and supportively. No specific antidote known.

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: Highly toxic cadmium oxide fumes may evolve in fires.

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 protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with eyes and skin. Do not breathe in spray mist or dust. 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 as very toxic to aquatic organisms and will 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.

Methods and Materials for Clean-up: Contain spilled product by picking up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal. Do not create a powder cloud by

VILLA CALCIUM ARSENATE

SAFETY DATA SHEET

using a brush or compressed air. 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. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Fatal 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. Avoid excess heat. 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: Metal drum & plastic bag.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Calcium hydroxide	5 mg/m ³	TWA OEL-RL	OSHA Hazardous Chemical Substances Regulations, 1995

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: Use a NIOSH approved air-purifying respirator with cartridges/canisters approved for specific use at hand.

Hand Protection: Chemically protective gloves must be worn to prevent against skin contact.

Eye Protection: Chemical safety goggles must be worn to prevent eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Employee must wear appropriate protective clothing; 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: Colourless to white amorphous powder.

Odour: Odourless.

pH (1% aqueous dilution): 5.5 @ 26 °C.

Melting point: 1455 °C

Freezing Point: 0 °C.

Boiling Point: Not available.

Flash Point: Not applicable to solids.

Flammability: Not available.

Upper/lower explosion limits: Not applicable to solids.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density: 3.62 g/cm³ at 20° C

Solubility: Slightly soluble.

n-octanol/water partition coefficient: Not available.

Auto-ignition temperature: Not applicable to solids.

Decomposition temperature: Not available.

Viscosity: Not applicable to solids.

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: Will not occur.

Conditions to Avoid: Extreme heat or exposure to flames.

VILLA CALCIUM ARSENATE

SAFETY DATA SHEET

Incompatible Materials: Strong oxidizers, strong bases, strong reducing agents.

Hazardous Decomposition Products: Product undergoes decomposition at high temperatures and will cause toxic fumes of arsine gas.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS (in line with WHO):

Oral LD₅₀ rat > 23 mg/kg

Dermal LD₅₀ rat > 2800 mg/kg

Inhalation LC₅₀ 2200 mg/l

Skin Irritation: Causes skin irritation.

Eye Damage: Causes serious eye damage.

Skin Sensitization: Product is not a skin sensitizer.

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: Not available.

Skin contact: Causes skin irritation and may be harmful in contact with skin.

Eye contact: Causes serious eye damage.

Ingestion: Not available.

12. ECOLOGICAL INFORMATION

This product is considered a marine pollutant.

ECOTOXICITY DATA:

No data available.

Plants: No data available.

ENVIRONMENTAL EFFECTS:

Persistence and degradability: Not determined.

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: Empty containers by inverting the empty container over the spray or mixing tank. Thereafter, rinse the container three times with a volume of water equal to a minimum of one third of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner. Destroy the container by perforating and flattening and dispose of through an approved waste dump site, incineration plant or recycling company. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number: 1573

Road Transport ADR/IRD:

Class: 6.1

Packaging group: II

UN Proper Shipping Name: Calcium Arsenate

(Calcium Arsenate 855 g/kg)

Maritime Transport IMDG/IMO:

Class: 6.1

Packaging group: II

UN Proper Shipping Name: Calcium Arsenate

(Calcium Arsenate 855 g/kg)

Marine Pollutant (Y/N): Yes.

Air Transport IATA/ICAO:

Class: 6.1

Packaging group: II

UN Proper Shipping Name: Calcium Arsenate

(Calcium Arsenate 855 g/kg)

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

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:

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

VILLA CALCIUM ARSENATE

SAFETY DATA SHEET

16. OTHER INFORMATION

Packaging: Packed in 5, 10, 15 and 25 kilograms metal drums and plastic bags, labelled according to South African regulations and guidelines.

Additional H statements (formulants):

H301: Toxic if swallowed.

H302: Harmful if swallowed.

H320: Causes eye irritation.

H331: Toxic if inhaled.

H332: Harmful if inhaled.

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.