

DIRECT

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: DIRECT
Other identifier: Polyether-polymethylsiloxane-copolymer + vegetable oil
Recommended use: Non-ionic adjuvant
Restrictions on use: Agriculture

Company: 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

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
Health		
Oral	Acute tox. 5	H303
Dermal	Acute tox. 5	H313
	Skin irrit. 3	H316
Eye Irritation	Eye Irrit. 2	H319
Inhalation	Acute Tox. 4	H332
Environment		
Aquatic Acute	Aquatic Acute 3	H402
Aquatic Chronic	Aquatic Chronic 3	H412

The most important adverse effects:

Physiochemical effects:

None known.

Human health effects:

May be harmful if swallowed.
May be harmful in contact with skin.
Causes mild skin irritation.
Causes serious eye irritation.
Harmful if inhaled.

Label elements:



Signal word: Warning.

Hazard statements:

H303: May be harmful if swallowed.
H313: May be harmful in contact with skin
H316: Causes mild skin irritation.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H402: Harmful to aquatic life.
H412: Harmful to aquatic life with long lasting effects.

Precautionary statements:

P261: Avoid breathing dust, fume, gas, mists, vapours or spray.
P264+P265: Wash hands and face thoroughly after handling. Do not touch eyes.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P301+P317: IF SWALLOWED: Get medical help.
P302+P317: IF ON SKIN: Get medical help.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P317: Get medical help.
P332+P317: If skin irritation occurs: get medical help.
P337+P317: If eye irritation persists: Get medical help.
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

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

DIRECT

SAFETY DATA SHEET

Composition:

Chemical Name	CAS	Conc. (M/v %)	Classification EC 1272/2008
Polyether-polymethylsiloxane-co-polymer	134180-76-0	33 %	Acute Tox. 4 (H312) Eye Irrit. 2 (H319) Acute Tox. 4 (H332) Aquatic Chronic 3 (H412)
Surfactant Emulsifier	61791-12-6	< 10 %	Acute tox 4 (H302) Skin irrit 3 (H316) Eye irrit 2B (H320) Acute Tox. 5 (H333) Aquatic Acute 3 (H402)

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. Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill containing 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 harmful to aquatic life 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. 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. 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.

4. FIRST AID MEASURES

Inhalation:

Remove patient to fresh air. Ensure supply of fresh air.

Skin:

Remove contaminated clothing, rinse skin with plenty of soap and water. Consult a doctor if skin irritation persists.

Eyes:

Flush eyes for 15 minutes with plenty of water. If irritation continues, get medical attention.

Ingestion:

Have victim rinse mouth thoroughly with water.

If the person is alert and respiration is not depressed, give large quantity of water to drink. Seek medical advice.

Anticipated acute effects: None known.

Anticipated delayed effects: None known.

Most important symptoms/effects: None known.

Advice to physician:

Not applicable treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

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

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Avoid contact with eyes and skin. Avoid the formation of aerosols or vapours during handling and application. 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 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 product. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of

DIRECT

each workday. Launder all clothing before it is re-used again.

Storage:

Conditions for safe storage: Keep under lock and key and out of reach of unauthorised persons, children and animals. Store product in its original labelled container, tightly closed, in an isolated, dry cool and well-ventilated area. Do not store product 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

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 areas, 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 protective (impervious) rubber gloves to prevent contact with skin.

Eye Protection: Use chemical resistant safety goggles or face shield to prevent eye contact.

Skin and Body Protection: Employee must wear appropriate protective (impervious) clothing e.g. coveralls, boots, and hat 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 product; the employer should provide an eyewash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light Yellow Liquid.

Odour: Characteristic.

pH (1% aqueous dilution): Not available.

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

SAFETY DATA SHEET

Flash Point: 102°C.

Flammability: Not available.

Upper/lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not measured.

Relative Vapour Density: Not available.

Density/Relative density: 1.02 g / cm³

Solubility: Soluble.

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: May give rise to dangerous fumes if strongly heated.

Conditions to Avoid: Avoid extreme heat.

Incompatible Materials: None known.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide, silicon dioxide.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS:

Oral LD₅₀ (24 h) > 4000 mg/ℓ

Dermal LD₅₀ (24 h) > 2000 mg/ℓ

Inhalation LC₅₀ (4 h) rat 2.6 mg/ℓ

Skin Irritation/Corrosion: Causes mild skin irritation.

Eye Damage/Irritation: Causes serious eye irritation.

Skin Sensitization: Not classified.

Respiratory Sensitization: Not classified.

Reproductive cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

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: Harmful if inhaled.

Eye contact: This product causes serious eye irritation.

Skin contact: May be harmful in contact with skin. Causes mild skin irritation.

Ingestion: May be harmful if swallowed.

DIRECT

SAFETY DATA SHEET

12. ECOLOGICAL INFORMATION

This product is harmful to aquatic life with long lasting effects.

ECOTOXICITY DATA: Active ingredient:

Polyether-polymethylsiloxane-co-polymer + vegetable oil

Fish:

LC₅₀ (96 h) Rainbow trout 2.1 mg/l

Daphnia:

EC₅₀ (48 h) *Daphnia magna* 1.1 mg/l

Algae: Not determined

Birds: Not determined.

Bees: Not determined.

Worms: Not determined.

Plants: Not determined.

ENVIRONMENTAL EFFECTS:

Animal: Not determined.

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 adjuvant 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 THE EMPTY CONTAINER**

AS FOLLOWS: 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. 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

This product is considered a marine pollutant.

UN Number: 3082

Road Transport ADR/IRD:

Class: 9

Packaging group: III

UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (polyether siloxane)

Maritime Transport IMDG/IMO:

Class: 9

Packaging group: III

UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (polyether siloxane)

Marine Pollutant (Y/N): Y

Air Transport IATA/ICAO:

Class: 9

Packaging group: III

UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (polyether siloxane)

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:

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 50, 100, 500 ml, 1, 5 and 20 litres plastic containers/drums and labelled according to South African regulations and guidelines.

DIRECT

SAFETY DATA SHEET

Other hazard statements, abbreviations and explanations:

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H320: Causes eye irritation.

H332: Harmful if inhaled

H333: May be harmful if inhaled.

IATA: International Air Transport Association.

IBC: International Bulk Chemical.

ICAO: International Civil Aviation Organization.

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization.

LD₅₀ 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

END OF DOCUMENT

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For detailed information on revisions, contact the Registration holder.