

# DETECT 400 SC

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** DETECT 400 SC  
**Other identifier:** Dithianon 400 SC  
**Recommended use:** Fungicide  
**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](http://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
<b>Health</b>		
Oral	Acute Tox. 4	H302
Inhalation	Acute Tox. 3	H331
<b>Environment</b>		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

**The most important adverse effects:**  
**Physicochemical effects:** None known.  
**Human health effects:** Toxic if inhaled. Harmful if swallowed.

## Label elements:



**Signal word:** Danger.  
**Hazard statements:**  
 H302: Harmful if swallowed.  
 H331: Toxic if inhaled.  
 H400: Very toxic to aquatic life.  
 H410: Very toxic to aquatic life with long lasting effects.  
**Precautionary statements:**  
 P261: Avoid breathing mists, vapours or spray.  
 P264: Wash hands and face thoroughly after handling.  
 P270: Do not eat, drink or smoke when using this product.  
 P271: Use only outdoors or in a well-ventilated area.  
 P273: Avoid release into the environment.  
 P304/340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 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: Category 3.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture.

### Composition:

Chemical Name	CAS	Conc. (m/v%)	Classification EC 1272/2008
Dithianon	3347-22-6	40	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Sodium dodecylbenzene sulfonate	25155-30-0	<5%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)

## 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. Immediately consult a doctor.  
**Inhalation:** Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs or symptoms develop.

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**Skin:** Remove contaminated clothing and shoes. Gently wipe of excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. If irritation persists, obtain medical attention.

**Eyes:** Immediately flush eyes with clean water for at least 15-20 minutes. Lift eyelid (s) to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**

**Ingestion:** Seek medical attention or call a poison control centre for treatment advice. 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. If the person is alert, rinse mouth thoroughly with water and then drink 200 – 300 ml of water,

**Anticipated acute effects:** Toxic if inhaled.

**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 water spray, foam, dry powder or carbon dioxide.

**Unsuitable Extinguishing Media:** High volume water jet.

**Specific hazards:** Combustion may result in the release of the following gases: carbon monoxide, carbon dioxide, oxides of nitrogen and oxides of sulphur.

**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. Water can be used to cool unaffected containers but must be contained for later disposal. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Contain fire control agents and wastewater 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:** Do not breathe in spray mist or fumes. Avoid contact with eyes and skin. Ventilate area of spill or leak, especially in contained areas.

**Protective equipment:** Breathing apparatus should be worn. Refer to Section 8 for further details on 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 as the product is classified as very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into water courses should be immediately reported to the police and the Department of Water/Environmental Affairs. Do not discharge into soil or subsoil.

**Methods and Materials for Containment:** Prevent material from spreading by diking area in with sand, earth or sawdust.

**Methods and Materials for Clean-up:** Cover contained spill with an inert absorbent material such as sand, earth, sawdust, universal binder 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:** Ensure adequate ventilation during handling and use. Avoid contact with skin and eyes. 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 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 again.

**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, out of direct sunlight. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers. Protect from extreme temperatures, the product can crystallize in temperatures lower than 0°C. Local regulations should be complied with.

**Incompatible substances and mixtures:** Refer to product label.

**Packaging material:** Plastic containers.

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### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
1,2 Propanediol	470, 10 mg/m <sup>3</sup>	TWA	OEL-RL

#### 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:** Respiratory protection is recommended when working with high concentrations or if used in a poorly ventilated area (airborne concentrations exceed exposure limits). Use a NIOSH approved air-purifying respirator for organic vapours.

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

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

**Skin and Body Protection:** Chemically impervious clothing; boots, hat and equipment, is recommended 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 mixture; the employer should provide an eyewash fountain or appropriate alternative within the immediate work area for emergency use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Brown suspension concentrate.

**Odour:** Faint specific odour.

**pH (1 % aqueous dilution):** Not available.

**Melting point:** Not available.

**Freezing Point:** Not available.

**Boiling Point:** Not available.

**Flash Point:** Not available.

**Flammability:** Not flammable.

**Upper/lower explosion limits:** Not explosive.

**Vapour Pressure (mm Hg):** Not available.

**Relative Vapour Density:** Not available.

**Density/Relative density:** 1.19 g/cm<sup>3</sup> at 20°C.

**Solubility:** Suspends in water.

**n-Octanol/water partition coefficient:** >3.

**Auto-ignition temperature:** > 300 °C.  
**Decomposition temperature:** Not available.  
**Viscosity:** 607 mPa.s at 20 °C, 6 1/s.

### 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, above 0°C and not for prolonged periods in direct sunlight.

**Reactivity:** None known.

**Possibility of Hazardous Reactions:** None Known.

**Conditions to Avoid:** Avoid extreme heat or cold and exposure to direct sunlight.

**Incompatible Materials:** Avoid contact with strong acids, strong bases or strong oxidising agents.

**Hazardous Decomposition Products:** Combustion may release toxic and irritant vapours.

### 11. TOXICOLOGICAL INFORMATION

#### ACUTE TOXICITY (Calculated according to GHS):

**Oral LD<sub>50</sub> (24 h) rat** >700 mg/kg.

**Dermal LD<sub>50</sub> (24 h) rat** >5000 mg/kg.

**Inhalation LC<sub>50</sub> (4 h) rat** > 0.7 mg/ℓ

#### Based on classification according to GHS:

**Skin Irritation/Corrosion:** Not classified.

**Eye Damage/Irritation:** Not classified.

**Skin Sensitization:** Not classified as 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:** Toxic if inhaled.

**Skin contact:** Not available.

**Eye contact:** Not available.

**Ingestion:** Harmful if swallowed.

### 12. ECOLOGICAL INFORMATION

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

#### ECOTOXICITY DATA (based on active ingredient):

##### Fish:

LC<sub>50</sub> (96 h) Trout 44 µg/ℓ

**Daphnia:**  
 EC<sub>50</sub> (48 h) 260 µg/ℓ

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### Algae:

EC<sub>50</sub> (72 h) *Selenastrum capricornutum* 90 µg/l

### Birds:

Acute LD<sub>50</sub> Quail 309 mg/kg  
 Duck >2000 mg/kg  
 b.w./day

### Bees:

LD<sub>50</sub> (contact) >100 mg/bee

### Worms:

LC<sub>50</sub> (14d) 578.4 mg/kg soil

### Plants:

Dithianon was identified as the major component of the residue in all plants/plant parts investigated. The parent compound is further metabolised to a large number of polar, minor, unidentified components.

### ENVIRONMENTAL EFFECTS (based on active ingredient):

#### Persistence and degradability:

Soil DT<sub>50</sub> (lab, 20°C, 41 – 45% MWHC) 2.6-37.6 d; soil DT<sub>90</sub> (lab, 20°C; 41 – 45% MWHC) 8.5 – 12.5d; Water DT<sub>50</sub> (pH 7, 20°C) 0.6 d; K<sub>oc</sub> 1167 – 6004 ml/g; air DT<sub>50</sub> < 6.3 h.

**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. Waste should only be handled by licensed facilities. Comply with local legislation applying to waste disposal. The product may be taken to a certified 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 rinsing to the contents of the spray tank before recycling or destroying the container in the prescribed manner. Observe all labelled safeguards until container is destroyed. Destroy the container by perforation and flattening. The container may be taken to a certified 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.

### 14. TRANSPORT INFORMATION

**UN NUMBER:** 2902

**Road Transport ADR/RID:**

Class: 6.1  
 Packaging group: III  
 Shipping name: Pesticide, Liquid, Toxic, N.O.S.  
 (Dithianon 400 g/l)

**Maritime Transport IMDG/IMO:**

Class: 6.1  
 Packaging group: III  
 Shipping name: Pesticide, Liquid, Toxic, N.O.S.  
 (Dithianon 400 g/l)

**Marine Pollutant:** Yes

**Air Transport ICAO/IATA:**

Class: 6.1  
 Packaging group: III  
 Shipping name: Pesticide, Liquid, Toxic, N.O.S.  
 (Dithianon 400 g/l)

**Special/Environmental Precautions:** Refer to sections 4 to 8 of this document.

**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

### 16. OTHER INFORMATION

**Packaging:** Packed in 1, 5, 10, 20 and 50 litres plastic containers, labelled according to South African regulations and guidelines.

**Additional H Statements (formulants):**

**H315:** Causes skin irritation.

**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.

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**Compiled:** September 2018  
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For detailed information on revisions, contact the Registration holder.