

# MOCAP® 150 GR

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** MOCAP® 150 GR  
**Other identifier:** Ethoprophos 150 GR  
**Recommended use:** Insecticide  
**Restrictions on use:** Agriculture

**Supplier:** 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](http://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
<b>Health</b>		
Oral	Acute Tox. 3	H301
Dermal	Acute Tox. 5	H313
Skin sensitizer	Skin sensitizer 1	H317
<b>Environment</b>		
Aquatic Chronic	Aquatic Chronic 1	H410

### The most important adverse effects:

#### Physiochemical effects:

None known.

#### Human health effects:

Toxic if swallowed  
 May be harmful in contact with skin.  
 May cause an allergic skin reaction.  
 Very toxic to aquatic life.

#### Label elements:



**Signal word:** Danger.

#### Hazard statements:

H301: Toxic if swallowed.  
 H313: May be harmful in contact with skin.  
 H317: May cause an allergic skin reaction.  
 H 410: Very toxic to aquatic life with long lasting effects.

#### Precautionary statements:

P264: Wash hands and face thoroughly after handling.  
 P270: Do not eat, drink or smoke when using this product.  
 P272: Contaminated work clothing should not be allowed out of the workplace.  
 P273: Avoid release to the environment.  
 P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.  
 P301+P310: IF SWALLOWED: Immediately call a POISON CENTER.  
 P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.  
 P330: Rinse mouth.  
 P333+P317: If skin irritation occurs: Get medical help.  
 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: Category 3

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture.

#### Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Ethoprophos	13194-48-4	15 %	Acute Tox. 3 (H301) Acute Tox. 1 (H310) Skin Sens. 1 (H317) Aquatic Acute 1 (H 400) Aquatic Chronic 1 (H 410)
Undisclosed Ingredients		85 %	

## 4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of

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any complaints or symptoms, avoid further exposure and consult a doctor.

**Inhalation:** Remove person from contaminated area to fresh air and assist breathing as needed. If the patient is not breathing, commence with artificial respiration and provide oxygen or closed chest cardiac massage. Seek medical attention if person is not feeling well.

**Skin:** Remove contaminated clothing immediately and rinse contaminated body area thoroughly with plenty cold water and non- scrubbing soap. Do not rub the skin. Emergency personnel should wear gloves and avoid contamination. Seek medical attention if skin irritation occurs.

**Eyes:** Flush contamination out of eyes with clean lukewarm, gently flowing water for at least 15 minutes, while holding eyelids(s) open. Lift eyelids to facilitate irrigation. If present, remove contact lenses and continue rinsing.

**Ingestion:** Immediately induce vomiting as directed by medical personnel. If swallowed, drink 2 to 3 glasses of water and induce vomiting by tickling the back part of the throat. However, **do not** induce vomiting or give anything by mouth to an **unconscious person**. Vomiting may occur spontaneously. To prevent aspiration, position patient on his side with his head in a lower position than his waist. If vomiting while patient is conscious, give water to further dilute the chemical. Persons attending to the victim must avoid direct contact with heavily contaminated clothing and vomitus. **Immediately take the patient to the nearest doctor or hospital, whichever is faster.**

**Anticipated acute effects:** May cause allergic skin reaction. Irritation of eyes and mucous membranes. This product is a Cholinesterase inhibitor.

**Anticipated delayed effects:** Pre-existing skin or respiratory disorders may be aggravated by exposure to components of this product. Pre-existing conditions which lower cholinesterase levels increase vulnerability to cholinesterase depression. These include: (for plasma) chronic alcoholism, malnutrition, dermatomyositis: existing toxicity from exposure to carbon disulphide, benzalkonium salts, organic mercury compounds, ciguatoxins or solanines and haemolytic anemia.

**Most important symptoms/effects:** The product may cause mild to moderate irritation, tearing, nausea, vomiting, diarrhoea, headache, breathing difficulty and death. Ingestion may resemble alcohol intoxication, progressing to central nervous system depression, vomiting, headache, rapid respiratory and heart rate, lowered blood pressure, stupor, collapse and unconsciousness with convulsions.

### Advice to physician:

**MOCAP® 150 GR** is a cholinesterase inhibitor. Support respiration, measures should include the removal of secretions, maintenance of the patient's airway and if necessary, artificial ventilation. If cyanosis is absent, administer 2-4 mg atropine sulphate intravenously (0.05

mg/kg for children). Repeat atropine sulphate at 5-10 minute intervals until patient is fully atropinized (dry flushed skin, tachycardia, papillary dilation) and maintain for at least 48 hours. If cyanotic, give initial atropine sulphate dose intramuscularly and start measures to improve ventilation.

Administer reactivator, e.g. PROTOPAM, Ayerst (2-PAM) up to a total dose of 1-2 grams 2-PAM (20-40 mg/kg for children) in 100 cc saline over 15-30 minutes. A second dose may be given after one hour if muscle weakness persists. May be given by intramuscular or subcutaneous routes if intravenous administration is not feasible. In case of skin contact, wash the patient with soap and water followed by wash with 95 % ethyl alcohol. Keep the patient under constant observation for 24 to 36 hours. Symptoms may persist for one month.

Theophylline, morphine, barbiturates, phenothiazines, reserpine and succinyl choline are contra-indicated.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable Extinguishing Media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards:** During fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

**Special Fire Fighting Procedures:** Remove spectators from surrounding area. Isolate the fire area and relinquish 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:** Keep unnecessary personnel away. Keep out of low 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:** Avoid release to the environment. Prevent further leakage or spillage if safe to

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do so. Do not contaminate water. Avoid discharge into drains, watercourses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

**Methods and Materials for Containment and Clean-up:** The product is immiscible with water and will sediment in water systems. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems, which lead to waterways. Stop the flow of material, if this is without risk. Shovel up and place in a container for salvage or disposal. Clean surface thoroughly to remove residual contamination. 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. See section 13 for disposal considerations.

### 7. HANDLING AND STORAGE

**Handling:**

**Precautions for safe handling:** 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 again.

**Storage:**

**Conditions for safe storage:** Store in its original container in dry, cool, well-ventilated area under lock and key. Avoid excess heat. Not to be stored next to foodstuffs, feed and water supplies. Keep out of reach of children, uninformed persons and animals. Do not contaminate other pesticides and fertilizers.

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

**Packaging material:** Plastic containers.

### 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 OSHA PELs 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:** In case of insufficient ventilation, it is advisable that the employee wears a NIOSH approved air-purifying respirator with cartridges approved for organic vapours.

**Hand Protection:** The employee must wear appropriate chemically resistant gloves e.g., nitrile rubber gloves to prevent contact with this substance.

**Eye Protection:** Avoid contact with eyes. A face shield or chemical safety goggles is recommended when handling the concentrate and when applying the product to prevent against eye contact. Contact lenses are not protective eye devices.

**Skin and Body Protection:** The use of protective (impervious) clothing e.g. coveralls is recommended to prevent skin contact.

**Emergency eyewash:** Where there is any possibility that an employee's eyes may be exposed to this substance; the employer should provide an eyewash fountain or appropriate alternative within the immediate work area for emergency use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Grey coated granules solid.

**Odour:** Mild chemical odor

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

**Melting point:** Not available.

**Freezing Point:** Not available.

**Boiling Point:** 86 – 91°C @ 0.2 mm Hg (a.i)

**Flash Point:** Not available

**Flammability:** Not available

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

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

**Relative Vapour Density:** Heavier than air.

**Density/Relative density:** 1.094 g/cm<sup>3</sup>estimated.

**Solubility:** Insoluble in water. Miscible in aromatic and aliphatic hydrocarbons, alcohols, ketones, ethers, esters, chlorinated solvents and vegetables oil (a.i)

**n-octanol/water partition coefficient:** Not available.

**Auto-ignition temperature:** Not available.

**Decomposition temperature:** 203 °C (a.i)

**Viscosity:** Not available.

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## 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:** This product is non-reactive under normal conditions of use, storage and transport.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur.

**Conditions to Avoid:** Avoid temperature exceeding the decomposition temperature. Contact with incompatible materials.

**Incompatible Materials:** Alkaline metals. Isocyanates.

**Hazardous Decomposition Products:** Upon decomposition, this product emits acrid dense smoke with carbon dioxide, carbon monoxide water and other products of combustion.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY:

Calculated according to GHS

Oral LD<sub>50</sub> rat 300 mg/kg.

Dermal LD<sub>50</sub> rat > 2000 mg/kg.

Inhalation LC<sub>50</sub> rat > 0.0051 mg/kg

**Skin Irritation/Corrosion:** Product is not irritating to the skin.

**Eye Damage/Irritation:** Not conducted due to high toxicity. Toxic by eye contact.

**Skin Sensitization:** Product may cause skin sensitization.

**Respiratory Sensitization:** Not conducted due to high toxicity.

**Reproductive cell mutagenicity:** Available data on the active ingredient indicates the substance is not mutagenic or genotoxic.

**Carcinogenicity:** Not available.

**Reproductive toxicity:** This product has not shown any reproductive effects in laboratory animals.

**Specific target organ toxicity – single exposure:** Studies with the active ingredient do not warrant classification.

**Specific target organ toxicity – repeated exposure:** Studies with the active ingredient do not warrant classification.

**Aspiration hazard:** Not available.

**Chronic Effects:** Not available.

### POTENTIAL ADVERSE EFFECTS:

**Inhalation:** No adverse effects due to inhalation are expected.

**Skin contact:** May be harmful in contact with skin.

**Eye contact:** Direct contact with eyes may cause temporary irritation.

**Ingestion:** Toxic if swallowed

**Other information:** Not available.

## 12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

### ECOTOXICITY DATA: Active Ingredient

#### Fish:

LC <sub>50</sub> (96 h)	Bluegill	0.3 mg/l
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#### Crustacea:

EC <sub>50</sub> (48 h)	Daphnia magna	0.2 mg/l
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#### Algae:

EC <sub>50</sub> (72 h)	Algae	2.4 mg/l
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### ENVIRONMENTAL EFFECTS:

**Persistence and degradability:** No data available on the degradability of this product.

**Bio-accumulative Potential:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** No other adverse environmental effects are expected from this product.

## 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. 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 dust 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 or where it is used. 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 recycling or 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:** 2783

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**Road Transport ADR/RID:**

Class: 6.1  
 Packaging group: II  
 UN proper Shipping name: ORGANOPHOSPHORUS  
 PESTICIDE, SOLID,  
 TOXIC

**Maritime Transport IMDG/IMO:**

Class: 6.1  
 Packing group: II  
 UN proper Shipping name: ORGANOPHOSPHORUS  
 PESTICIDE, SOLID,  
 TOXIC

**Marine Pollutant (Y/N):** Yes, Considered a marine pollutant.

**Air Transport IATA/ICAO:**

UN proper Shipping name: ORGANOPHOSPHORUS  
 PESTICIDE, SOLID,  
 TOXIC

**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

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**16. OTHER INFORMATION**

**Packaging:**

5, 10, 20 & 25 kg HDPE packaging in carton box or HDPE packaging in aluminium foil + Kraft bags and labelled according to South African regulations and guidelines.

**Other hazard statements, abbreviations, and explanations:**

H 310: Fatal in contact with skin.

H 400: Very toxic to aquatic life.

**IATA:** International Air Transport Association.

**IBC:** International Bulk Chemical.

**ICAO:** International Civil Aviation Organization.

**IMDG:** International Maritime Dangerous Goods

**IMO:** International Maritime Organization.

**LD<sub>50</sub> 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.

**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 for errors and omissions or the consequence thereof.

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**END OF DOCUMENT**

**Compiled:** February 2017

**Reviewed:** August 2022

**Revision no.:** (5)

**Next revision date:** August 2027

For detailed information on revisions, contact the Registration holder.