# FARM-AG INTERNATIONL (Pty) Ltd

P.O. Box 1523, Durban 4000 Co Reg. No. 2005/011761/07

**Head Office:** 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe **South Africa**

**Tel** + 27 31 0033486 ● **Fax** + 27 31 502 5825


**Product Name:** **LASCAR 500 EC**
**Product Use:** Insecticide
**Creation Date:** March 2018
**Revision Date:** -

**24 Hr Emergency Number:**
**In case of Poisoning:**
Western Cape Poison Centre 0861555777
**In case of Spillage:**
HAZMAT: 0800 147 112

## SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

**Formulation Type:** Emulsifiable concentrate (EC)
**Active Ingredients:** Chloripyrifos, Cypermethrin
**Chemical Abstracts name:** Chlorpyrifos: *O,O*-diethyl *O*-(3,5,6-trichloro-2-pyridinyl) phosphorothioate
Cypermethrin: cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate
**CAS NO. :** Chlorpyrifos: *[2921-88-2]*
Cypermethrin: *[52315-07-8]* (formerly *[69865-47-0], [86752-99-0]* and many other numbers)
**Molecular Formula:** Chlorpyrifos: $C_9H_{11}Cl_3NO_3PS$
Cypermethrin: $C_{22}H_{19}Cl_2NO_3$
**Molecular Weight:** Chlorpyrifos: 350.6
Cypermethrin: 416.3
**Use:** Fungicide for control of certain fungal diseases in barley, wheat and soybeans.
**Formulation:** **(Chloripyrifos 450 g/l + Cypermethrin 50 g/l) 500 (EC)**
**Emulsifiable Concentrate**

**Other ingredients determined not to be hazardous:**

| CHEMICAL NAME | CAS NO | PERCENT (w/w) |
|---|---|---|
| Chlorpyrifos | *2921-88-2* | ±45% |
| Cypermethrin | *52315-07-8* | ±05% |
| other | not available | ±50% |

**Symbol:** Xn, Xi & N
**Indication of danger:** Harmful, irritant and environmentally hazardous substance
**Risk Phrases:** R22, R36/37, R50 & R57

## 3. HAZARDS IDENTIFICATION

**Precautions:**
Avoid contact with eyes, skin and clothing.
Avoid inhalation of spray mist.
Do not mix with bare hands.
Wear protective clothing such as apron, gloves, face mask and boots during application and handling of the pesticide.
Do not eat, drink, chew tobacco or smoke during application.
Bathe or shower after spraying and change to clean clothes.
Toxic to bees and hence avoid spraying cotton plants during high bee activity.
Inflammable. Store away from heat and fire.

**Symptom of poisoning:**
Acute poisoning will be manifest as typical symptoms of OP insecticide poisoning, as chlorpyrifos is present at ten fold higher concentration than cypermethrin.
The signs of symptoms are any combination of dizziness, headache, pin point pupils, blurred vision, stomach pain, excessive sweating, salivation, nausea and muscle twitching. The symptoms of poisoning with cypermethrin include trembling, ataxia, poor muscular co-ordination, allergies, localized skin effects (itching, coldness, numbness etc.).

## 4. FIRST AID MEASURES

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Never give fluids or induce vomiting if patient is unconscious or is having convulsions.
**Ingestion:** If swallowed, do not induce vomiting. Call a physician and/or transport the patient to an emergency facility immediately.
**Skin Contamination:** In case of contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing.
**Eye contamination:** Flush immediately with water for 15 minutes.
**Inhalation:** Remove the affected person to fresh air and obtain medical attention if there is any respiratory distress.
**Note to Physician (Antidote):**
This material contains both a cholinesterase inhibitor and a solvent. Signs of poisoning may include dizziness, nausea, vomiting, intestinal spasms, diarrhoea, contracted pupils and difficulty in breathing.
Atropine by intravenous administration is the antidote of choice. Oximes may or may not be therapeutic but it is recommended that they should not be used in place of atropine.
If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

## 5. FIRE FIGHTING MEASURES

**Flash point:** Does not flash.
**Extinguishing Media:** Water fog or fine spray, carbon dioxide, dry chemical, and or foam. Alcohol resistant foams (ATC type) are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively. Water fog, applied gently may be used as a blanket for fire extinguishment. Do not use direct water stream. May spread fire.
**Media to be avoided:** Do not use direct water stream.
**Hazardous Combustion Products:** During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to sulfur oxides, phosphorus compounds, nitrogen oxides, hydrogen chloride, carbon monoxide, and carbon dioxide. Dense smoke is produced when product burns. Mechanical handling can cause formation of dusts. To reduce the potential for dust explosion, do not permit dust to accumulate. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Container may rupture from gas generation in a fire situation.
**Fire fighting instructions:** Keep people away. Isolate fire area and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environmental damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Hand held carbon dioxide or dry chemical extinguishers may be used for small fires. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Do no use direct water stream. May spread fire. Fight fire from protected location or safe distance.
**Protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

## 6. ACCIDENT RELEASE MEASURES

**Personal Precautions:** Wear appropriate safety clothing and eye/face protection (see Section8).
**Environmental Precautions:** Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.
**Methods of Cleaning Up:** Soak up with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.
**Additional Information:** Eliminate all ignition sources.

## 7. HANDLING AND STORAGE

**Handling:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work. Avoid breathing vapours. Avoid eye contact.
**Storage:** Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.
**Respiratory Protection:** When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.
**Hand/Skin Protection:** For brief contact, no precautions other than clean body-covering clothing and chemical resistant gloves should be needed. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.
**For emergency conditions:** Use protective clothing impervious to this material. Selection of specific items will depend on operation.

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**Eye/Face Protection:** Use chemical goggles. If vapour exposure causes eye discomfort, use a full-face supplied-air respirator.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** Clear liquid**.**
**Color:** Pale yellow.
**Odor:** Solvent odour
**Rel. density (water=1):** Approximately 1.1 (20 ºC).
**Melting/Freezing point:** <-5ºC.
**Flash point:** >100ºC
**Solubility in water:** Emulsifiable.

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Is stable under normal storage conditions.
**Conditions to Avoid:** Avoid temperature above 70ºC. Avoid high temperatures (at or near flash point), open flame, sparks and direct sunlight. Contains petroleum derivative solvent - will burn. Product can decompose at elevated temperature. Generation of gas during decomposition can cause pressure in closed system.
**Materials to Avoid:** Strong basic, acidic or oxidizing materials.
**Hazardous Decomposition:** Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Hazardous decomposition products may include and are not limited to hydrogen chloride, organic sulfides, and/or sulfur dioxide.
**Hazardous polymerization**: Not known to occur.
**Additional Information**
Chlorpyrifos: Product undergoes exothermic decomposition which can lead to high temperatures and violent decomposition if heat developed is not removed.

## 11. TOXICOLOGICAL IMFORMATION

**Ingestion:** The estimated oral $LD_{50}$ for rats is 278 – 357 mg/kg (calculated).
**Skin Contact:** The estimated dermal $LD_{50}$ for rats is >41667 mg/kg (calculated). A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. Short single exposure may cause skin irritation.
**Sensitisation:** Minimally toxic. May cause mild skin irritation.
**Eye Contact:** May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.
**Inhalation:** No adverse effects anticipated by this route of exposure, but excessive exposure should be avoided.
Acute Inhalation Toxicity for rats: > 0.2 mg/ℓ (calculated).
Other Information: Excessive exposure may cause organophosphate type cholinesterase inhibition.

## 12. ECOLOGICAL IMFORMATION

**Chlorpyrifos:**
**Birds:** Acute oral $LD_{50}$: 490 mg/kg (mallard ducks), 32-102 mg/kg (chickens). Dietary $LC_{50}$ (8 days): 423 ppm (bobwhite quail).
**Fish:** Highly toxic to fish. $LC_{50}$ (96 h): 0.002-0.010 mg/l (bluegill sunfish), 0.007-0.051 mg/l (rainbow trout).
**Daphnia** :$LC_{50}$ (48 h): 0.21 µg/l.
**Algae:** NOEC: >0.4 mg/l.
**Bees:** Toxic to bees. $LD_{50}$ (oral) 360 ng/bee, (contact) 70 ng/bee.
**Worms:** $LC_{50}$ (14 d) 210 mg/kg soil.
**Persistence and Degradability**: Does not leach in soils and is therefore unlikely to contaminate ground water. Half-life in soils is dependent on soil type and conditions and is approximately 10-56 days.

**Cypermethrin:**
**Birds:** Acute oral $LD_{50}$: >10000 mg/kg (mallard ducks), >2000 mg/kg (chickens).
**Fish:** Highly toxic to fish. $LC_{50}$ (96 h): 2.37 µg/l (sheepshead minnow), 0.69 mg/l (rainbow trout).
**Daphnia:** $LC_{50}$ (48 h): 0.15 µg/l.
**Bees:** Highly toxic to honeybees in laboratory tests. $LD_{50}$ (oral) 0.035 µg/bee, (topical) 0.02 µg/bee.
**Persistence and Degradability:** In soil, the half-life is approximately 14-28 days. Does not leach in soils and is therefore unlikely to contaminate ground water. There is no carry-over to follow-on crops.

## 13. DISPOSAL CONSIDERATION

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**DISPOSAL OF EMPTY CONTAINERS:** Never re-use the empty containers. Destroy and bury in a safe place. Dispose off packages or surplus material in a safe manner to prevent environmental and water pollution.
This product is very toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.

## 14. TRANSPORT INFORMATION

**Land transport (ADR/RID):**
**UN No:** 3018
**UN hazard class**: 6.1
**Packing Group**: III.
**Shipping name:** Organophosphorus pesticide, liquid, toxic
**Marine Pollutant:** Yes.

**Sea transport (IMDG):**
**UN No:** 3018
**UN hazard class**: 6.1
**Packing Group**: III.
**Shipping name:** Organophosphorus pesticide, liquid, toxic
**Marine Pollutant:** Yes.

**AIR transport (ICAO/IATA):**
**UN No:** 3018
**UN hazard class**: 6.1
**Packing Group**: III.
**Shipping name:** Organophosphorus pesticide, liquid, toxic
**Marine Pollutant:** Yes.

## 15. REGULATORY INFORMATION

**Symbol:** Xn, Xi & N
**Indication of danger:** Harmful, irritant and environmentally hazardous substance

**Risk phrases:**
**R22:** Harmful if swallowed
**R36/37**: Irritating to eyes and skin
**R50**: Very toxic to aquatic organisms
**R57**: Toxic to bees

**Safety phrases:**
**S2**: Keep out of reach of children.
**S13**: Keep away from food, drink and animal feeding stuffs.
**S20:** When using do not eat, drink or smoke.
**S24/25**: Avoid contact with skin and eyes.
**S26**: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
**S62**: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

## 16. OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.
If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact this company.
END OF MSDS