

CARTAP 500SP

Insecticide

Reg. No. 13-D-176-5

Net Content 1kg



HARMFUL IF SWALLOWED

Composition:	(mass/mass)
Cartap hydrochloride.....	50%
Insert Ingredients.....	50%

Chemical Group: Thiocarbamate

A soluble powder contact and systemic action insecticide for the control of Bollworm and other insect pests in Cotton and other listed crops.

TO CAUSE A HAZARD IN THE USE, STORAGE OR DISPOSAL OF THIS SUBSTANCE IS AN OFFENCE.

Manufactured by:

NOVA AGRO (HK) LTD
6TH FLOOR, WYNDHAM PLACE,
44 WYNDHAM STREET,
CENTRAL HONGKONG

Registration held by:

MAGCHEM (PVT) LIMITED,
2274 TILBURY ROAD,
WORKINGTON, HARARE,
ZIMBABWE

DIRECTIONS FOR USE:

Compatibility:

- The compatibility of **CARTAP 500SP** with other products may be influenced by the formulation of the products involved, as well as by the quality of the water. As these factors may vary, a physical compatibility test must always be performed before such tank mixture is sprayed.
- When **CARTAP 500SP** is used in conjunction with any other agricultural remedy, all **WARNINGS**, **PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label, must be adhered to.

Mixing instructions:

- Half fill the spray tank with clean water.
- Shake the **CARTAP 500SP** container well before use.
- CARTAP 500SP** is subjected to alkaline hydrolysis. Therefore, the ideal pH of the spray water is approx. 4.
- Add an acidifier/buffer to the volume of water in the mixing tank to ensure the correct pH.
- Take approximately 10 litre of this pH corrected water from the mixing tank and thoroughly pre-mix the required volume of **CARTAP 500SP** therewith.
- Fill the spray tank with water to the required level while maintaining agitation, to ensure thorough mixing.
- Maintain agitation while spraying.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

RESISTANCE WARNING

CARTAP 500SP is a group code 4C insecticide. Any insect population may contain individuals naturally resistant to **CARTAP 500SP** and any other group code 4C insecticide. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly.

These resistant insects may not be controlled by **CARTAP 500SP** or any other group code 4C insecticide.

To delay insecticide resistance:

- avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with products from different insecticide group codes,
- integrate other control methods (chemical, cultural, biological) into insect control programmes.

For specific information on resistance management, contact the registration holder of this product.

Due to resistance of Diamondback moth to pyrethroids, carbamates and organophosphates, use **CARTAP 500SP** in a programme with other registered products, which differ in chemistry and mode of action, in order to combat the build-up of resistance.

Do not apply more than three successive applications.

SAFETY PRECAUTIONS

- Handle with care.
- Wear protective clothing, boots, rubber gloves and face shield when handling the product.
- KEEP OUT OF THE REACH OF CHILDREN.
- KEEP APART FROM FOOD AND FOOD STUFFS.
- KEEP UNDER LOCK AND KEY.
- Do not inhale fumes or spray mist.
- Avoid contact with skin and eyes.
- Prevent spray drift onto other crops, grazing, rivers, dams or other areas not under treatment.
- Do not eat, drink or smoke whilst mixing or applying or before washing hands and face and changing clothes.
- Wear protective clothing, boots, rubber gloves and face shield when handling the product.
- Wash contaminated clothing daily.
- Toxic to fish and birds.
- Wash with soap and water after use and accidental skin contact.
- Clean all equipment thoroughly after use. Dispose of wash water where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Triple rinse empty containers in the following manner: Rinse the container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the described manner.
- Destroy the empty container by perforating and flattening and dispose of it in a safe manner.
- Never re-use the empty container for any other purpose whatsoever.

SAFETY PRECAUTIONS

Empty container disposal

Invert the empty container over the spray tank or mixing tank and allow to drain 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 minimum of 10% of the container. Add the rinsings to the contents of the spray tank. Destroy the empty container by perforation and flattening. Return to supplier for recycling. DO NOT use for any other purpose. Dispose of the wash water at a site for the disposal of pesticides.

Decontamination of sprayer

Clean applicator thoroughly after use and ensure that all traces of **CARTAP 500SP** are removed. Make use of the following method:

- Drain and rinse tank, spray boom and hoses with clean water for at least 10 minutes
- Fill tank with clean water and add it to 1 litre household bleach (5%) or 1.5 Litres of household bleach (3.5%) per 200 Litres of water. Rinse hoses and spray boom and leave in tank for 15 minutes whilst agitating. Drain through nozzle outlets.
- Repeat step (b) and thereafter, rinse thoroughly with clean water and dispose of the wash water at a site designated for the disposal of pesticides.

APPLICATION RATES

Crop/Pest	Dosage Rate	Height of Crop	Spray Volume	Remarks
Cotton Red bollworm Spiny bollworm Stainers Leaf eaters Jassids	Knapsack/Tailboom Spraying: 400g/100L water	Up to 400mm 400mm-900mm >900mm	50L/ha 100L/ha 150L/ha	
	Tractor mounted mistblower: 800g/100L water	Up to 400mm 400mm-900mm >900mm	35L/ha 65L/ha 100L/ha	
	Ground U.L.V. Add 145g to 200ml molasses. Make up to 1L water.	Up to 400mm 400mm-900mm >900mm	1.7L/ha 3.3L/ha 5.0L/ha	
*Knapsack with tailboom - hollow cone nozzle giving output of 180ml per minute and a spray angle of 70° at 3 bar recommended.				
Cabbage Diamond back moth larvae (<i>Plutella xylostella</i>)	400g/100L water (maximum 2kg/ha)			Apply as a full cover spray at 500 litres spray mixture per hectare. Apply CARTAP 500SP in a 10 to 14-day interval spray programme and alternate the product with other registered products with different mode of action (refer to IRAC Insecticide Group Code). WARNING: Refer to the "RESISTANCE WARNING" above.
Potatoes Potato tuber moth larvae (<i>Phthorimaea operculella</i>)	400g/100L water (maximum 2kg/ha)			Apply the first application as soon as the first moths are noticed. Apply 500 litre spray mixture per hectare. Ridge at least twice during the growing season. Apply CARTAP 500SP in a 10 to 14-day interval spray programme and alternate the product with other registered products with different mode of action (refer to IRAC Insecticide Group Code). WARNING: Refer to the "RESISTANCE WARNING" above.
Potato leafminer (<i>Liriomyza huidobrensis</i>)	400g/100L water (maximum 2kg/ha)			Fields: Apply as a full cover spray. Apply the first application as soon as infestation is noticed. Apply CARTAP 500SP in a 7-day interval spray programme and alternate the product with other registered products with different mode of action (refer to IRAC Insecticide Group Code). Do not use dosage rates higher than recommended, as phytotoxicity may occur. WARNING: Refer to the "RESISTANCE WARNING" above.
Tomatoes American leafminer (<i>Liriomyza trifolii</i>)	400g/100L water (maximum 2kg/ha)			Fields: Apply as a full cover spray. Apply the first application as soon as infestation is noticed. Apply CARTAP 500SP in a 7-day interval spray programme and alternate the product with other registered products with different mode of action (refer to IRAC Insecticide Group Code). Do not use dosage rates higher than recommended, as phytotoxicity may occur. WARNING: Refer to the "RESISTANCE WARNING" above.
Tobacco seedbeds Aphids, chewing and biting insects	90g/100L water and drench at 2 L/m ²			Drench at 2L/m ²
Tobacco lands Chewing and biting insects including leaf miner, whitefly, diamond back moth, aphids and bollworm	400g/100L water			Apply as a full cover spray at 300 litres spray mixture per hectare. Apply CARTAP 500SP in a 10 to 14-day interval spray programme and alternate the product with other registered products with different modes of action (refer to IRAC Insecticide Group Code). WARNING: Refer to the "RESISTANCE WARNING" above.

SYMPTOMS OF HUMAN POISONING:

Poisoning symptoms are non-specific.

FIRST AID

- Ingestion** If swallowed, seek medical advice immediately and show this container or label. DO NOT induce vomiting.
- Eye Contact** Rinse immediately with plenty of clean water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.
- Skin Contact** Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.
- Inhalation** Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Information Centre immediately.

NOTES TO PHYSICIAN

Administer cystine as antidote. Consider washing of the stomach with injections of water. Treat symptomatically and supportively.

ANTIDOTE

Administer cystine as antidote.

WARRANTY

Excellent results should be achieved from the use of this product, provided the recommendations contained on this label are followed in full. However, as the application of this product and the conditions under which it is applied are beyond the control of the distributor, no warranties are given with regards to the use of this product. The distributor accepts no liability in delict for any injury to persons or damage to or loss of property, or profits, resulting from the handling, use or storage of this product.

Date of manufacture: 10 Mar 2019
Batch no.: 20190310

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SUPPLIER : **NOVA AGRO (HK) LTD.**
(Reg. No. 1023146)
6th Floor Wyndham Place
44 Wyndham Street
CENTRAL HONG KONG.
Tel No.: +852 3586 2521

EMERGENCY TELEPHONE NUMBERS

SPILLAGES :
Telephone No. : +27-83 6761998

POISONINGS:

National Poison Centre: +27 219386084 (office hours)
(South Africa) : +27 800 33444 (24h)

1. IDENTIFICATION OF THE SUBSTANCE

Trade Name: **CARTAP 500SP**
Active ingredient: Cartap hydrochloride
Chemical Name: S,S'-(2-dimethylaminotrimethylene) bis(thiocarbamate)
CAS No. 15263-53-3
Chemical Family: 2-dimethylaminopropane-1,3-dithiol
Chemical Formula: C₇H₁₆ClN₃O₂S₂ (Mol.wt.: 273.8)
Use: Systemic insecticide with stomach and contact action. Insects discontinue feeding, and die of starvation.
Hazchem code 43-50/53
UN No. 3077

2. COMPOSITION/INFORMATION ON INGREDIENTS

Formulation: cartap hydrochloride 500 g/kg Soluble powder
Hazardous ingredients: Hazard/Risk: % present:
cartap hydrochloride Xn, N 50 % filler - 50 %
Symbol: Xn, N
Indication of danger: Harmful, Environmentally Hazardous Substance
Risk Phases: R21, R22, R51

3. HAZARD IDENTIFICATION

Toxicity class: WHO (a.i.) II
Likely routes of exposure: Ingestion, skin and eye contact.
Main hazard: Cartap is moderately toxic to mammals on acute exposure by several routes of administration. In case of accidental poisoning, diarrhoea, nausea, vomiting, abdominal pain, sweating, salivation and blurred vision are reported. In severe poisonings,

possibility of respiratory depression, pulmonary oedema and convulsions should be anticipated.

4. FIRST AID MEASURES AND PRECAUTIONS

Inhalation:

Move the victim to fresh air or remove source of contamination. Keep person warm and at rest. Treat symptomatically and supportively as and when required. Qualified personnel should perform administration of oxygen. Get medical attention immediately.

Skin contact:

Move the victim from the source of contamination and remove all contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with water and nonabrasive soap, for at least 15 to 20 minutes. Do not rub the skin. If irritation persists, seek medical advice.

Eye contact:

Immediately flush the contaminated eyes with gently flowing clean water for 15 to 20 minutes, occasionally lifting the upper and lower lids. Seek medical advice.

Ingested:

Do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention immediately. Qualified medical personnel should perform administration of oxygen. If the person is alert, rinse mouth thoroughly with water and give person glass of water to drink.

Advice to physician:

Administer cystine as antidote. Consider washing of the stomach with injections of water. Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Extinguishing agents:

Use carbon dioxide, dry powder, or alcohol-resistant foam to extinguish fire. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Apply water as a fine mist or fog.

Fire fighting:

Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours. Keep upwind. Remove container from fire area if possible and without risk.

Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways. Product is considered a Marine Pollutant.

Do not use high volume water jet, due to contamination



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risk. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Personal protective equipment:

Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus with full-face mask.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions:

Do not inhale dust. Avoid contact with skin and eyes. Ventilate area of spill or leak, especially confined areas. Wear appropriate safety clothing and eye/face protection - see Section 8.

Environmental precautions:

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs. Product is considered a Marine Pollutant.

Occupational spill:

For dry spills, shovel up and sweep up with damp earth or sand or other suitable absorbents, taking care not to raise a dust cloud. Place the material into a labelled, clean, dry container and store in a safe place to await proper disposal. All contaminated cleaning materials should be placed in closable receptacles.

In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Do not contaminate water while cleaning equipment or disposing of wastes. Keep spectators away and upwind.

7. HANDLING AND STORAGE REQUIREMENTS

Handling:

Use good personal hygiene. Avoid contact with eyes and skin and inhalation of dust. Use with adequate ventilation.

Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the insecticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage:

Store in its original container in isolated, dry, cool and wellventilated area. Keep from contact with other pesticide, fertilizers and seeds during storage. Store away from incompatible substances. Not to be stored next to foodstuffs and water supplies.

Keep under lock and key out of reach of unauthorized persons, children and animals. Local regulations should be complied with.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Occupational exposure limits:

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure.

Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT:

Respirator:

An approved full-face air-purifying respirator suitable for protection from mists of pesticides is required. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

For emergency conditions, use an approved positive pressure self-contained breathing apparatus.

Clothing:

Employee must wear appropriate protective (impervious) clothing (long-sleeved shirt, long pants and shoes plus socks) and equipment to prevent skin contact with the substance.

Gloves:

Employee must wear appropriate chemical resistant protective gloves to prevent contact with this substance.

Eye protection:

Employee must wear splash-proof safety goggles and face-shield to prevent 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:

White to light brown soluble powder.

Odour:

Weak characteristic odour.

Flammability:

Not flammable.

pH (1% solution):

Not available.

Solubility in water:

This is a soluble powder formulation.



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10. STABILITY AND REACTIVITY

Storage stability:

Considered stable for a period of 2 years in normal air, warehouse and light conditions, if kept in closed container.

Incompatibility:

Compatible with most commonly used agricultural pesticides, except with alkaline preparations. A compatibility test is required before using with other products. Do not physically mix concentrate directly with other herbicides or pesticide concentrates; always dilute first.

Hazardous Decomposition Products:

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀: (calculated:) 650 mg/kg.

Acute dermal LD₅₀: (calculated): >2 000 mg/kg.

Acute inhalation LC₅₀:

Technical: LC₅₀ rats: >0,54 mg/l/6 hours

Acute skin irritation: Not irritant.

Acute eye irritation: Not irritant.

Teratogenicity:

No teratogenic activity at doses above the no effect observed level, were revealed.

Mutagenicity:

Negative results were obtained in several mutagenicity assays.

NOEL: Mouse: 20 mg/kg body weight/day,

Rat: 10 mg/kg body weight/day.

ADI: 0,1 mg/kg

12. ECOLOGICAL INFORMATION

In rats, the carbonyl carbon is hydrolysed, and the sulphur oxidised with N-demethylation of thiomethyl derivatives. No accumulation occurs in tissues. Rapidly excreted in the urine. DT₅₀ in soil: 3 days.

ECOTOXICOLOGY:

Fish: Toxic to fish.

LC₅₀ (24h): carp: 1.6 mg/l

LC₅₀ (48h): carp: 1.0 mg/l

Bees: Moderately toxic to honey bees.

Other aquatic species:

LC₅₀: Moina macrocopa: 12.5 to 25 mg/l

Product is considered a **Marine Pollutant**.

13. DISPOSAL CONSIDERATION

Pesticide disposal:

Open dumping or burning of this pesticide is prohibited

Waste resulting from the use of this product that cannot be reused or reprocessed. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Package product wastes:

Emptied containers retain vapour and product residues. Observe all labelled safeguards. Empty the container of excess product into the container of the applicator. Destroy the emptied containers by perforation and flattening. Bury in an approved dumpsite. Do not re-use the empty container for any other purpose. Comply with any local legislation applying to disposal.

14. TRANSPORT INFORMATION

UN NUMBER: 3077

Road Transport ADR/IRD:

Class: 9

Packing group: III

Shipping name: Environmentally Hazardous

Substance. N.O.S. (cartap 500 g/kg)

Considered a Marine Pollutant

15. REGULATORY INFORMATION

Symbol: Xn, N

Indication of danger: Harmful, Environmentally Hazardous Substance

Risk phrases:

R21 Harmful in contact with skin.

R22 Harmful if swallowed.

R51 Toxic to aquatic organisms

Safety phrases:

S2 Keep out of reach of children.

S24 Avoid contact with skin.

S25 Avoid contact with eyes.

S37/39 Wear suitable gloves and eye/face protection.

S46 If swallowed, seek medical advice immediately and show this container or label.

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

16. OTHER INFORMATION

Packaging:

Packed in 1, 5, 10 and 25kg aluminium foil bags, sealed and labelled according to South African regulations and guidelines.

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 use of the product. It is not applicable to



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unusual or nonstandard 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.
