



# SAFETY DATA SHEET

## PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: HARVEST NOVA CBZ 500  
ACTIVE: **CARBENDAZIM 500G/L**  
REGISTRATION HOLDER: HARVEST CROP SOLUTIONS (PTY) LTD.  
DISTRIBUTOR: HARVEST CHEMICALS (PTY) LTD.  
ADDRESS: 25 DAN PIENAAR ROAD  
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REPUBLIC OF SOUTH AFRICA  
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### 1. CHEMICAL PRODUCT

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**Name of Product:** Harvest Nova CBZ 500  
**Active Ingredient:** Carbendazim 500g/L

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

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Composition	Cas No	Content % W/V
Carbendazim	10605-21-7	50.0 min
Other ingredients		50.0 max

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### 3. HAZARDS IDENTIFICATION

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Hazard classification  
Hazardous Substance : Non-Dangerous Goods.  
Hazard Category  
N : Dangerous for the environment.  
Risk phrase (s)  
R40/22 : Possible risks of irreversible effects if swallowed.  
R50 : Very toxic to aquatic organisms

Safety phrase (s)

S2 : Keep out of reach of children.

S13 : Keep away from food, drink or feeding stuff.

S20/21 : When using do not eat, drink or smoke.

S36/37 : Wear suitable protective clothing and gloves.

S46 : If swallowed, seek medical advice immediately and show the container or label. S60 : This material and/or its containers must be disposed of as hazardous waste. S61 : Avoid release to the environment. Refer to special instructions/safety data sheet.

#### 4. FIRST AID MEASURES

##### **Symptoms of human poisoning:**

May irritate the eyes, nose, throat and skin. Harmful if inhaled or swallowed.

**If swallowed:** If swallowed, immediately contact a poison control centre, doctor or nearest hospital for treatment advice. Rinse mouth with water. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless directed by a physician or a poison control centre. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomit, rinse mouth and administer water.

**If in eyes:** Immediately flush eyes with clean water, holding eyelids apart for a minimum of 20 minutes. After 5 minutes check for and remove contact lenses, then continue rinsing eye. Obtain medical attention immediately if irritation persists.

**If on skin or clothing:** Immediately remove contaminated clothing and wash skin, hair and fingernails thoroughly with soap and water. Flush skin with running water for a minimum of 20 minutes. Obtain medical attention if irritation persists. Wash contaminated clothing before re-use.

**If inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is laboured, give oxygen. Obtain immediate medical attention.

**Notes to Physician:** The following symptoms may occur:

**Local** – slight skin and eye irritation.

**Systemic** – none documented over many years experience. If swallowing a small quantity of this material it will result in a serious health hazard. Abdominal pain and nausea as symptoms of toxicity may occur.

For local contamination treatment should be symptomatic after decontamination. In case of skin or eye contamination, treat as documented under "First Aid". If a large amount of this product is ingested the following measures should be considered:

Induction of vomiting if the patient is fully conscious and it is less than 30 minutes since ingestion.

Monitor blood count. Gastric lavage.

Charcoal administration Anticonvulsant therapy is not appropriate. There is not specific antidote for poisoning with Carbendazim. Recovery is expected to be spontaneous.

Carbendazim is very rapidly absorbed and eliminated from the body.

Medical Condition Likely to be aggravated by Exposure: None known.

#### 5. FIRE FIGHTING MEASURES

##### **Fire and Explosion Hazard:**

Non-flammable, non-combustible and non-explosive liquid. Minimise the use of water to prevent environmental contamination.

Hazardous Products of Combustion:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion. Carbon dioxide. Carbon monoxide. Nitrogen oxides.

**Extinguishing Media:**

Water, foam, dry chemical and carbon dioxide (CO<sub>2</sub>). Use extinguishing media appropriate for surrounding fire.

**In Case of Fire:**

Use appropriate extinguishing media for combustibles in the area. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

Decontaminate equipment after use. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff. Prevent runoff to enter sewers, waterways, rivers or dams. Prevent use of contaminated buildings, area, and equipment until decontaminated.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal Precautions:**

Wear appropriate personal protective equipment as specified in Section 8.

**Environmental Precautions:**

**Small Spill:**

Absorb with sand, soil or other absorbent material. Scrub the spill area with detergent and water. Minimise the use of water to prevent environmental contamination.

**Large Spill:**

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8.

Cover entire spill with absorbing material and place into compatible disposal container. Scrub the spill area with detergent and water. Collect wash water with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposal.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

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## 7. HANDLING AND STORAGE

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**Handling:**

Approved dust or mist respirator should be used if airborne particles are generated when handling this material.

Do not eat, drink or smoke while handling this product.

Wash thoroughly with soap and water after handling.

Dispose of wash water where it will not contaminate crops, grazing, dams or rivers.

**Storage:**

Store in a well-ventilated, secure area out of reach of children, uninformed persons and animals.

Do not store food, beverages or tobacco products in the storage area.

Keep container closed when not in use.

Store above - 10° C.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Ingestion:** Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

**Eye Protection:** Where eye contact is likely, use chemical splash goggles.

**Emergency Eye Wash:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower for emergency use.

**Skin Contact:** Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

**Inhalation:** A combination particulate/organic vapor respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an HE prefilter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical state: White floable liquid

Color: White

Odor: Negligible odour

Specific Gravity/Density: 1.15 g/ml (20 °C)

pH: 6.0 – 8.0

Solubility in H<sub>2</sub>O: Suspension in water

Vapor Pressure: Not available

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## 10. STABILITY AND REACTIVITY

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**Stability:** Stable under normal conditions.

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** Fire, High temperatures.

**Materials to Avoid:** Strong Alkalis and Acids.

**Hazardous Decomposition Products:** On exposure to high temperatures, may decompose, releasing toxic gases. Carbon monoxide. Carbon dioxide. Nitrogen oxides.

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## 11. TOXICOLOGICAL INFORMATION

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Acute Toxicity/Irritation Studies (Finished Product)

Ingestion: Slight Toxic Oral (LD Rat): > 5000 mg/kg for male and female

Dermal: Slight Toxic Dermal (LD Rat): > 4000 mg/kg body weight.

Inhalation: Practically Non-Toxic Inhalation (LC50 Rat): (4 hr) > 5.6 mg/ℓ air.

Skin Contact: Slightly irritating (Rabbit)

Eye Contact: non-irritating (Rabbit)

Skin Sensitization: Non Sensitizing (Guinea Pig)

Reproductive/Developmental Effects: Not teratogenic

Chronic/Subchronic Toxicity Studies: Carbendazim is not mutagenic but phenazines, possible contaminants of the technical material, are utagenic at very low concentrations..

Carcinogenicity: Not carcinogenic.

Other Toxicity Information: None

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## 12. ECOLOGICAL AND ECOTOXICOLOGICAL INFORMATION

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### Summary or Effects

Toxic to aquatic organisms and low hazard to birds.

Eco-Acute Toxicity for Technical product:

Fish Toxicity:

LC<sub>50</sub> (96 hr) for Carp 0.61 mg/L

LC<sub>50</sub> (96 hr) for rainbow trout 0.83 mg/L

LC<sub>50</sub> (96 hr) for bluegill sunfish > 17.25 mg/L

EC<sub>50</sub> (48 hr) for Daphnia 0.18 mg/L

Bird Toxicity:

Acute Oral LD<sub>50</sub> for quail 5826 to 15595 mg/kg

Algal Toxicity:

EC<sub>50</sub> (72 hr) for Algae (*Scenedesmus subspicatus*) 419 mg/L

EC<sub>50</sub> (72 hr) for Algae (*Selenastrum capricornutum*) 1.3 mg/L

Environmental Fate:

Soil: DT<sub>50</sub> for carbendazim is of 3 to 12 months with its residues and metabolites tightly bound to soil.

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## 13. DISPOSAL CONSIDERATIONS

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**Product:** Dispose of as hazardous waste. Burn only in controlled high temperature incinerator. Keep out of drains, sewers, ditches and water ways.

**Container:** Triple rinse according to directions on label. Do not reuse product containers for any other purpose.

Dispose of product containers, waste containers, and residues according to local, regional, national and international regulations.

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## 14. TRANSPORT INFORMATION

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**Shipping name:** Environmentally hazardous substance, Liquid, N.O.S. Road and Rail Transport

UN No.: 3082

H.I. nr: 90

ADR/RID Packaging Group: III

### Marine Transport

UN No.: 3082

IMO – IMDG Class: 9

IMO Packaging Group: III

IMDG Marine Pollutant: Marine Pollutant

### **Air Transport**

UN No.: 3082

IATA Class: 9

IATA Packaging Group: III

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## **15. REGULATORY INFORMATION**

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Hazard classification

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## **16. OTHER INFORMATION**

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All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

