



SAFETY DATA SHEET

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BUPROFEZIN 500 WP
ACTIVE: **BUPROFEZIN 500g/kg**
REGISTRATION HOLDER: HARVEST CROP SOLUTIONS (PTY) LTD.
DISTRIBUTOR: HARVEST CHEMICALS (PTY) LTD.
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1. CHEMICAL PRODUCT

ACTIVE INGREDIENT: Buprofezin 50% WP
CAS NO: 69327-76-0
CHEMICAL NAME: 2-tert-butylimino-3-isopropyl-5-phenyl-1,3,5-thiadiazin-4-one EMPIRICAL
FORMULA: C₁₆H₂₃N₃O
USE: insecticide

2. COMPOSITION/INFORMATION ON INGREDIENTS

Buprofezin	≥50
Inert ingredients	up to 100%

3. HAZARDS IDENTIFICATION

Emergency overview-caution:

Harmful if swallowed, inhaled, or absorbed through the skin.

Causes moderate eye irritation.

Signs and symptoms of overexposure:

Symptoms from excessive ingestion of Buprofezin Technical may include subdued mood, slight muscular incoordination, and a slightly enlarged abdomen.

Potential health effects:

Eye contact: contact with this product causes moderate eye irritation.

Ingestion: no specific health effects are known for ingestion of a small amount incidental to routine handling and use. Ingestion of large amounts may be harmful.

Inhalation: inhalation of this product is harmful. The active ingredient is not known to be a significant irritant to the respiratory system, but excessive dust inhalation of the inert ingredient in a confined area may cause irritation and congestion of the upper respiratory tract.

Skin contact: absorption through the skin is harmful. This product is a slight skin irritant but not a skin sensitive.

4. FIRST AID MEASURES

Eye contact: flush eyes with plenty of water. Call a physician if irritation persists. Ingestion: call a physician or the poison control center. Drink one or two glasses of water. Induce vomiting by touching the back of the throat with the finger, or if available, by administering syrup of ipecac. If the person is unconscious, do not give anything by mouth and do not induce vomiting.

Inhalation: remove the victim to fresh air. If not breathing, give the victim artificial respiration, preferably mouth-to-mouth. Get medical attention.

Skin contact: wash with plenty of soap and water. Get medical attention if irritation persists. Hints for the physician: provide supportive care and symptomatic treatment.

5. FIRE FIGHTING MEASURES

Extinguishing agent: alcohol-resistant foam, carbon dioxide, dry chemicals, and water spray.

Special fire-fighting procedure: firemen should wear positive-pressure, self-contained breathing apparatus.

Flammable properties:

Hazardous decomposition products: carbon dioxide, carbon monoxide, nitrogen oxides, and sulfur dioxide.

6. ACCIDENTAL RELEASE MEASURES

General and disposal: take all necessary actions to prevent and remedy the adverse effects of the spill. Ensure that disposal is in compliance with federal requirements and local disposal regulations. Notify the appropriate authorities immediately.

Land spill and leak: do not breathe the dust. Use a suitable dust respirator. Avoid contact with skin and eyes. Carefully sweep up the spilled product, avoiding formation of a dust cloud, and place it in a suitable container. Seal the container. The area can be washed with water to remove the last traces of the product, but keep out of water courses or sewers. Inform authorities immediately if contamination occurs.

7. HANDLING AND STORAGE

HANDLING: Caution: this product is harmful if swallowed, inhaled, or absorbed through the skin. It causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing, and wash them before reuse.

Users should:

- Wash hands before eating, drinking chewing gum, using tobacco, or using the toilet.
- Follow the manufacturer's instructions for cleaning and maintaining personal protective equipment (PPE). If no such instructions are provided for washables, use detergent and hot water. Keep PPE separate from other laundry; wash it separately.
- Do not apply this product in a way that will contact workers or other persons, either directly or through drift.
- Do not apply this product through any type of irrigation system.
- Allow only protected handlers in the area during application.

Storage: store in a cool, dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: control airborne contaminants below the exposure guidelines. Use with adequate ventilation to minimize exposure. Local exhaust ventilation may be necessary, especially when the product is used in a confined area.

Personal protective equipment:

Applicators and handlers must wear: long-sleeved shorts and long pants, waterproof gloves, shoes plus socks.

PPE required for early entry into treated areas:

If working with plants, soil, or water in treated areas during the restricted entry interval of 12 hours, personnel must wear: coveralls over long-sleeved shirts and long pants; waterproof gloves; socks and chemical-resistant footwear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White or pale yellow loose powder

Water: $\leq 2.0\%$;

Stability: it is stable at ambient temperature and pressure for 2 years.

Melting point: 104.5-105.5 °C

Vapor pressure: 1.25 mPa (25 °C)

KOW: $\log P = 4.3$

Stability: Stable in acidic and alkaline media. Stable to heat and light.

10. STABILITY AND REACTIVITY

Chemical stability: this product is stable. The active ingredient is stable under dark and cool storage conditions; it is also stable in acid and alkali.

Thermal stability: 130 D.C., maximum for Buprofezin technical.

Hazardous decomposition products: may decompose at extreme high temperatures to form oxides of carbon, nitrogen, and sulfur.

Hazardous polymerization: none known.

11. TOXICOLOGICAL INFORMATION

Oral: Rat LD50 >5,000mg/kg (slightly toxic)
Dermal: Rat LD50>2,000mg/kg (moderately toxic)
Inhalation: Rat LD50>2.5mg/l (4hrs)
Eye Irritation: Causes moderate eye irritation
Skin Irritation: Rabbit: Slightly irritating

Guinea Pig: Not a skin sensitization

12. ECOLOGICAL AND ECOTOXICOLOGICAL INFORMATION

Based on the available information, the acute toxicity of Buprofezin to mammals is low. It is considered non-toxic to avian species and to aquatic species at its limit of solubility in water (acute studies). Buprofezin has no apparent effect on parasitic wasps in the genera *Paracentrobia*, *Anagrus*, and *Microterys*, or the predacious mites *Phytoseilulus persimilis* and *Ambylseius longispinosus*.

Environmental toxicity: based on the available information, the acute toxicity of Buprofezin to mammals is low. It is considered non-toxic to avian species and to aquatic species at its limit of solubility in water. Buprofezin has no apparent effect on parasitic wasps in the genera *Paracentrobia*, *Anagrus*, and *Microterys*, or the predacious mites *Phytoseilulus persimilis* and *Ambylseius longispinosus*.

Environmental hazards: for terrestrial uses, do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water through disposal of equipment washwaters.

13. DISPOSAL CONSIDERATIONS

Pesticide disposal: wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

Container disposal: remove the water-soluble bag from the outer packaging, and place the inner bag into the application equipment. Then dispose of the empty outer packaging by discarding it in a sanitary landfill, by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of the smoke.

14. TRANSPORT INFORMATION

Not available.

15. REGULATORY INFORMATION

Not available.

16. OTHER INFORMATION

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 in 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 produces formulations containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.