

NOBEL 250 EC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: NOBEL 250 EC
Other identifier: Bupirimate 250 EC
Recommended use: Fungicide
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

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
Physiochemical		
Flammable liquid	Flammable liquid 3	H226
Health		
Oral	Acute Toxicity 5	H303
Aspiration hazard	Aspiration Toxicity 1	H304
Dermal	Skin Irritation 2	H315
	Skin Sensitisation 1	H317
Eye	Eye Damage 1	H318
Inhalation	Acute Toxicity 4	H332
Specific Target Organ Toxicity – Single Exposure	STOT SE 3	H335
		H336
Carcinogenicity	Carcinogenicity 2	H351
Environment		
Aquatic chronic	Aquatic chronic 1	H410

The most important adverse effects:
Physiochemical effects: Flammable liquid and vapour.
Human health effects:
May be harmful if swallowed.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.

Causes serious eye damage.
Harmful if inhaled.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.

Label elements:



Signal word: Danger.

Hazard statements:

H226: Flammable liquid and vapour.
H303: May be harmful if swallowed.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H351: Suspected of causing cancer.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P203: Obtain, read and follow all safety instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240: Ground and bond container and receiving equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P261: Avoid breathing fumes, mists, vapours, or spray.
P264+P265: Wash hands and face thoroughly after handling. Do not touch eyes.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release into the environment.
P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P301+P316: IF SWALLOWED: Get emergency medical help immediately.
P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.
P304+P340+P317: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help.
P305+P354+P338+P317: IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if

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present and easy to do. Continue rinsing. Get medical help.
 P318: IF exposed or concerned, get medical advice.
 P319: Get medical help if you feel unwell.
 P331: Do NOT induce vomiting.
 P333+P317: If skin irritation or rash occurs: Get medical help.
 P362+P364: Take off contaminated clothing and wash it before reuse.
 P391: Collect spillage.
 P403+P235+P233: Store in a well-ventilated place. Keep cool. Keep container tightly closed.
 P405: Store locked up.
 P501: Dispose of content/container to suitable landfill in accordance with local regulations.
Other hazards:
 None known.
Toxicity:
 Classification according to GHS: Category 4

Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. If breathing stops, administer artificial respiration and immediately seek medical attention. **Seek medical attention.**
Skin: Remove contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **Obtain medical attention if irritation or rash occurs.**
Eyes: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**
Ingestion: **Seek medical attention immediately** or call a poison control centre for treatment advice. **Do not induce vomiting due to aromatic solvent.** Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.
Anticipated acute effects: May be harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness.
Anticipated delayed effects: Suspected of causing cancer
Most important symptoms/effects: May cause drowsiness or dizziness.
Advice to physician: Treat symptomatically and supportively. No specific antidote known.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Bupirimate	41483-43-6	25%	Skin Sensitisation 1B (H317) Carcinogenicity 2 (H351) Aquatic Chronic 1 (H410)
Kerosene	8008-20-6	< 15%	Aspiration Toxicity 1 (H304)
n-Butanol	71-36-3	< 40%	Flammable Liquid 3 (H226) Acute Toxicity 4 (H302) Skin Irritation 2 (H315) Eye Damage 1 (H318) STOT SE 3 (H335) STOT SE 3 (H336)
Solvent naphtha	64742-94-5	< 30%	Aspiration Toxicity 1 (H304)

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.
Unsuitable Extinguishing Media: High volume water jet. Use a water jet only to cool heated containers.
Specific hazards: Fire may produce irritating or poisonous vapours (carbon monoxide, nitrogen oxides, smoke, part oxidized hydrocarbon fragments), mists or other products of combustion.
Special Fire Fighting Procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate 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 protective gear.

4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure and IF exposed or concerned, get medical advice.

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with eyes and skin. **Do not breathe in spray mist or vapours.** Ventilate area of spill or leak, especially in contained 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: Prevent spilled product from entering sewers, waterways or ground water. This product is classified to be very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into water courses should be reported immediately to the police and the Department of Water/Environmental Affairs.

Methods and Materials for Containment: Contain spilled product by diking area with sand, earth or silica gel.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, earth or other appropriate non-combustible material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. 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. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Open burning or dumping of this material is prohibited. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: May be harmful if swallowed. May be fatal if swallowed and enters airways. Avoid contact with eyes and skin. Do not inhale spray mist or vapours. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly 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.

Storage:

Conditions for safe storage: Keep under lock and key and out of reach of unauthorised persons, children and

animals. Store in its original, labelled container, tightly closed in an isolated, dry, cool and well-ventilated area. Do not store near heat, open flame, sources of ignition or hot surfaces. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Fluorinated plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration:

Components	Exposure limits	Type of exposure limit	Source
n-Butanol	50 ppm	Up to 10-hour TWA (C) Ceiling	"www.osha.gov"

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: For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved, air-purifying respirator with cartridges / canisters approved for organic vapours.

Hand Protection: Employees must wear appropriate chemically resistant gloves e.g., nitrile rubber gloves to prevent contact with this mixture.

Eye Protection: Wear a face shield when handling the concentrate and when applying the product. The use of safety goggles is recommended if a face shield is not used.

Skin and Body Protection: Employees must wear appropriate protective impervious clothing, rubber boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Orange liquid, Emusifiable concentrate.

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Odour: Aromatic odour.
pH (1% aqueous dilution): 6.0 – 8.0.
Melting point: Not available.
Freezing Point: Not available.
Boiling Point: Not available.
Flash Point: 40 °C.
Flammability: Flammable liquid and vapour.
Upper/lower explosion limits: Not explosive.
Vapour Pressure (mm Hg): Not available.
Relative Vapour Density: Not available.
Density: 0.92 g/cm³ @ 26 °C.
Solubility: Emulsifies in water.
n-octanol/water partition coefficient: Not available.
Auto-ignition temperature: 340 °C.
Decomposition temperature: Not available.
Viscosity: Not available.

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 or near sources of heat.
Reactivity: None known.
Possibility of Hazardous Reactions: None expected.
Conditions to Avoid: Sources of heat or exposure to sparks or flames.
Incompatible Materials: Not available.
Hazardous Decomposition Products: Alcohols. carbon monoxide and carbon dioxide may form under burning conditions or with incomplete combustion.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Calculated according to GHS
Oral LD₅₀ >2000 mg/kg (rat).
Dermal LD₅₀ >6000 mg/kg. (rat)
Inhalation LC₅₀ (4 h) >1.59 mg/L (rat).
Skin Irritation/Corrosion Causes skin irritation.
Eye Damage/Irritation: Causes serious eye damage.
Skin Sensitization: May cause an allergic skin reaction.
Respiratory Sensitization: Not classified.
Reproductive cell mutagenicity: Not classified.
Carcinogenicity: Suspected of causing cancer.
Reproductive toxicity: Not classified.
Specific target organ toxicity – single exposure: May cause respiratory irritation. May cause drowsiness or dizziness.
Specific target organ toxicity – repeated exposure: Not classified.
Aspiration hazard: May be fatal if swallowed and enters airways.
Chronic Effects: Not available.
POTENTIAL ADVERSE EFFECTS:
Inhalation: Harmful if inhaled.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.
Eye contact: Causes serious eye damage.
Ingestion: May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

ECOTOXICITY DATA:

Bupirimate		
Fish:		
LC ₅₀ (96 h)	Rainbow trout	1.1 mg/l
	Bluegill sunfish	1.0 mg/l
Daphnia:		
EC ₅₀ (48 h)		7.3 mg/l
Algae:		
E _b C ₅₀ (72 h)	<i>Pseudokirchneriella subcapitata</i>	1.6 mg/l
Birds:		
Acute LD ₅₀	Pigeons	>2700 mg/kg
	Quail	>5200 mg/kg
Dietary LC ₅₀ (5 d)	Bobwhite quail & Mallard ducks	>10 000 mg/kg
Bees:		
LD ₅₀ oral		>200 µg/bee
LD ₅₀ contact		>50 µg/bee
Worms:		
LC ₅₀ (14 d)	<i>Eisenia fetida</i>	>500 mg/kg soil

ENVIRONMENTAL EFFECTS:

Based on information for the active ingredient

Plants: Not available.

Persistence and degradability: In soil, the major degradation product is ethirimol. Soil DT₅₀ 35–90 d (non-sterile flooded or non-flooded soils, pH 5.1–7.3).

Bio-accumulative Potential: Log K_{ow} 3.68. In mammals, following oral administration, 68% of the dose is eliminated in the urine within 24 hours; 77% is eliminated in the urine and 21% in the faeces within 10 days.

Mobility in soil: Not determined.

Other adverse effects: Not determined.

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.

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Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

Container: Emptied containers retain vapour and product residues. Do not re-use the empty container for any other purpose. Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number: 1993
Road Transport ADR/IRD:
 Class: 3
 Packaging group: III
 UN Proper Shipping Name: FLAMMABLE LIQUID,
 N.O.S.
 (Bupirimate 250 g/l)

Maritime Transport IMDG/IMO:
 Class: 3
 Packaging group: III
 UN Proper Shipping Name: FLAMMABLE LIQUID,
 N.O.S.
 (Bupirimate 250 g/l)

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

Air transport IATA/ICAO:
 Class: 3
 Packaging group: III
 UN Proper Shipping Name: FLAMMABLE LIQUID,
 N.O.S.
 (Bupirimate 250 g/l)

Special/Environmental Precautions: None known.

Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

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

16. OTHER INFORMATION

Packaging: Packed in 50, 100, 200, 250, 500 ml and 1, 5, 10, 20 and 25 l fluorinated plastic containers, labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:

H302: Harmful if swallowed.

IATA: International Air Transport Association.

IBC: International Bulk Chemical.

ICAO: International Civil Aviation Organization.

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization.

LD₅₀ 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.

OEL/RL: Occupational exposure limit-recommended limit.

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.

END OF DOCUMENT

Compiled: May 2017

Reviewed: July 2022

Revision no.: (4)

Next revision date: July 2027

For detailed information on revisions, contact the Registration holder.