

HELITEC®

1. Identification of the substance/preparation and the company

HELITEC®

Manufacturer: Kenya Biologics Limited
P.O Box 4560, Thika 01002
Kenya

Distributor: Dudutech Division of Finlay Horticulture (K) Limited
P. O. Box 1927, (20117) Naivasha, Kenya
Tel: (050) 2020859, Fax: (050) 2021167

2. Composition/information on ingredients

Helicoverpa armigera Nucleopolyhedrovirus (HearSNPV) ~ 1% 50% glycerol in water ~99%

Baculoviruses are viruses that are very specific to a few select lepidopteran insects, are considered safe, and do not pose any danger for humans, their livestock, and the environment. HearSNPV is infectious to larvae from the genera *Helicoverpa* and *Heliothis*. This particular baculovirus has been isolated from nature in Kenya and has not been genetically altered. The other component, glycerin is a common additive to all kinds of food products and cosmetics.

3. Hazard identification

Symptoms and effects: No typical symptoms or effects known for active ingredient

Inhalation: Due to low vapor pressure inhalation of vapors at ambient pressure is unlikely. Inhalation of mist may cause irritation of respiratory tract. Move to fresh air, rest, half upright position, loosen clothing. Oxygen or artificial respiration if there is difficulty in breathing. Seek medical advice after significant exposure. Symptomatic treatment is advised.

Skin Exposure: May cause irritation. Remove contaminated clothing. Wash clothes before reuse. After contact with skin, wash immediately with plenty of water

Eye Exposure: May cause irritation. Flush thoroughly with plenty of water. Seek medical advice if irritation develops. Ingestion: Low toxicity.
May cause nausea, headache or diarrhea
Chronic exposure: May cause Kidney injury

Advice to physician: Symptomatic treatment is advised

4. First aid measures

Baculoviruses are viruses that are very specific to a few select lepidopteran insects, are considered safe, and do not pose any danger for humans, their livestock, and the environment. HearSNPV is infectious to larvae from the genera *Helicoverpa* and *Heliothis*. This particular baculovirus has been isolated from nature in Kenya and has not been genetically altered. The other component, glycerin is a common additive to all kinds of food products and cosmetics.

5. Fire fighting measures

6. Accidental Release

Precautions: The usual precautions for handling chemicals should be observed

Environmental precautions: No specific recommendations

7. Handling and storage

The active ingredient consists of BSL1 material and it is recommended to observe the usual precautionary measures for handling chemicals.

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8. Exposure controls / personal protection

Helitec is non-toxic and requires no special protective measures. Storage, transportation, and disposal must be in accordance with applicable regulations

9. Physical and Chemical

Appearance:	Liquid
Color:	Light tan
Boiling point:	Range 100-290 °C
Flash point:	>100 °C
Flammability:	Not determined
Explosive properties:	None known
Oxidizing properties:	Avoid strong oxydizers such as acetic anhydride, calcium oxychloride, chromium oxides and alkali metal hydrides
Vapor pressure:	< 0.0025 mm Hg at 50°C Specific gravity approx.: 1.13 at 20°C
Solubility in water:	Miscible pH value: 7.1-7.33

10. Stability and reactivity

Stability: No decomposition if stored and handled properly
Conditions to avoid: Temperature > 200 °C (polymerization, decomposition)
Hazardous decomposition products: Acrolein (> 290 °C)

11. Toxicological information

Non-toxic. However the product can cause irritation to the eyes. Irritant to the respiratory tract. May cause sensitization upon skin contact

12. Ecological information

No ecological hazards. Readily biodegradable in soil. Information given is based on ecotoxicological knowledge of the product.
No data on mobility available. Estimated half-life period in surface water is 5.5 weeks.

13. Disposal consideration

Add bleach to the waste material to a final concentration of 17%. Allow the waste material to stand for a minimum of 5 minutes then discard to a designated waste disposal area

14. Transport information

Not dangerous cargo, keep dry and cool conditions during transit

15. Regulatory information

Product label conforms to PCPB (CAP 346) requirements.

16. Other information

Product is packed in 1 litre packs.
Packaging is plastic bottles

The information contained in this MSDS (or Biorational Safety Data Sheet) is believed to be accurate and reliable as of the date of issue, but no representation, guarantee, or warranty, express or implied, or made to the accuracy, reliability, or completeness of the information. It is provided for the purpose of complying with hazard communication regulations. It is not intended to constitute performance information concerning the product. It is the user's responsibility to determine the suitability for use of the product described herein. Dudutech does not assume legal responsibility for reliance upon the information contained herein.