

Section 1 Identification of the mixture and of the company	
1.1 Product identifier	
Product name	Helicovex
Synonyms	Bolldex, Verpavex
1.2 Relevant identified uses of the mixture and uses advised against	
Use of the product	Biological insecticide
Uses advised against	
1.3 Details of the supplier of the Safety Data Sheet	
Supplier	Andermatt Biocontrol AG
Address	Stahlermatten 6 6146 Grossdietwil
Phone (technical)	+41 (0)62 917 5125
E-mail	contact@andermttbiocontrol.com
1.4 Emergency telephone number	
Phone (medical)	+41 (0)44 251 5151 (Swiss Toxicology Centre)
Section 2 Hazards identification	
2.1 Classification of the mixture	Classification according to Regulation (EC) No 1272/2008 [CLP] No hazardous components.
2.2 Label elements	Store locked up. Keep out of the reach of children To avoid risks to human health and the environment, comply with the instructions for use. Contains Helicoverpa armigera nucleopolyhedrovirus. May produce an allergic reaction.
2.3 Other hazards	This mixture does not contain any substances, which are persistent, bioaccumulative and toxic (PBT). This mixture does not contain any substances which are very persistent and very bioaccumulative (vPvB).
Section 3 Composition/information on ingredients	
3.1 Substances	
	This product is a mixture
3.2 Mixtures	Helicoverpa armigera nucleopolyhedrovirus No hazardous component according to Regulation (EC) No 1272/2008 [CLP]
Section 4 First aid measures	
4.1 Description of first aid measures	
General notes	If medical advice is needed, have product container or label at hand. Change any contaminated or wetted clothing at once.
Following inhalation	If poisoning occurs contact a doctor or Swiss Toxicology Centre. Only possible by exposure to HOT product. 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.
Following skin contact	Remove contaminated clothing. Seek medical advice if irritation develops. Launder clothes before reuse. After contact with skin, wash immediately with plenty of water.

Following eye contact Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.

Following ingestion No typical symptoms and affects known

Advice to physician Symptomatic treatment

4.2 Most important symptoms and effects, both acute and delayed

No typical symptoms and effects known.

4.3 Indication of any immediate medical attention and special treatment needed

None

Section 5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Water mist, alcohol resistant foam, carbon dioxide, dry powder

Unsuitable extinguishing media Water-jet, foam

5.2 Special hazards arising from the mixture

Vapours cause coughing

At elevated temperatures (> 200°C), there is a risk of exothermic polymerization. At temperatures > 280°C, acrolein may be formed.

5.3 Advice for firefighters

Avoid contact with oxidizing agents. Cool closed containers with water.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use protective clothing. Do not inhale.

6.2 Environmental precautions

Prevent entry into drains, waters, sewages etc. of the product; contact immediately the municipal technical management if the product enters such bodies.

6.3 Methods and material for containment and cleaning up

Use adsorbent material to collect spillage (e.g. sawdust, peat, chemical binder). Place contaminated adsorbent in closable containers. Use a damp cloth to clean floors and other objects after removal of contaminated adsorbent. Also place used cleaning materials into closable receptacles.

6.4 Reference to other sections

See personal protective equipment under Section 8 of SDS.

Section 7 Handling and storage

7.1 Precautions for safe handling

The usual precautions for handling chemicals should be observed

7.2 Conditions for safe storage, including any incompatibilities

Store in original package only. Stored in the refrigerator (< 5°C) for two years. Stored at -18°C for years without any loss of activity.

7.3 Specific end use(s)

Biological Insecticide

Section 8 Exposure controls/personal protection

8.1 Control parameters

The usual precautionary measures for handling chemicals should

be observed

8.2 Exposure controls

Eye/face protection	No specific recommendations
Skin protection	Use protective clothing
Respiratory protection	No specific recommendations
Thermal hazards	No specific recommendations
Other information	None

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid (20°C)
Colour	Grey-brown
Odour	Characteristic
Odour threshold	Not determined
pH	6-7
Melting point/freezing point	Not determined (is not freezing at -18°C)
Initial boiling point and boiling range	105 - 290°C
Flash point	Not determinable up to 101°C
Evaporation rate	Not determined
Flammability	Not flammable
Upper/lower flammability or explosive limits	Not flammable
Vapour pressure	Not determined
Vapour density	Not relevant
Relative density	1.16 (g/ml)
Solubility(ies)	Soluble in water
Partition coefficient: n-cotanol/water	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	>200°C
Viscosity	690 mPa × s (at 50 RPM, 20°C)
Explosive properties	Non explosive
Oxidising properties	Non oxidizing

9.2 Other information

None

Section 10 Stability and Reactivity

10.1 Reactivity

Not reactive

10.2 Chemical stability

No decomposition if stored and handled properly

10.3 Possibility of hazardous reactions

Not relevant

10.4 Conditions to avoid

Temperature >200°C (polymerization, decomposition)

10.5 Incompatible materials

Avoid contact with oxidizing agents

10.6 Hazardous decomposition products

Acrolein (>280°C)

Section 11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity	Rat, oral, 5×10^9 granules /kg BW (AcNPV), no adverse effects
Skin corrosion/irritation	Rabbit, contact, 0.5 mL/animal (2.2×10^{13} granula of CpGV/L) for 4 h, no adverse effect
Serious eye damage/irritation	Rabbit, contact, 0.1 mL/eye (2.2×10^{13} granula of CpGV/L) for 24 h, non-irritating
Respiratory or skin sensitization	Guinea pig, inhalation, 35 mg CpGV (7×10^8 granules) per m ³ for 15 min, no adverse effects
Germ cell mutagenicity	Not determined
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not existing
STOT-repeated exposure	Not existing
Aspiration hazard	Not relevant

Section 12 Ecological information

12.1 Toxicity

Acute (short-term) toxicity

Fish	<i>Oncorhynchus mykiss</i> , 96 hour LC ₅₀ > 100 mg/L = 2.0×10^9 CpGV/L
Crustacea	<i>Daphnia magna</i> , 48 hour LC ₅₀ > 100 mg/L = 2.0×10^9 CpGV/L
Algae/aquatic plants	<i>Scenedesmus subspicatus</i> , 72 hour EC ₅₀ > 100 mg/L = 2.0×10^9 CpGV/L
Other organisms	<i>Lemna gibba</i> , 7 day EC ₅₀ > 100 mg/L = 3.1×10^9 CpGV/L

Chronic (long-term) toxicity

Fish	Not determined
Crustacea	Not determined
Algae/aquatic plants	Not determined
Other organisms	Not determined

12.2 Persistence and degradability

Abiotic Degradation	pH
Physical- and photo-chemical elimination	UV light
Biodegradation	Soil microflora

12.3 Bioaccumulative potential

Octanol/water partition coefficient (Kow)	Not determined
Bioconcentration factor (BCF)	Not determined

12.4 Mobility in soil

Known or predicted distribution to environmental compartments	HearNPV persists in the soil for a fairly long period in the immobilised state and does not accumulate.
Surface tension	Not determined
Adsorption/Desorption	Not determined

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

None

12.7 Additional information

None

Section 13 Disposal considerations

13.1 Waste treatment methods

Product/Packaging disposal	Use pressure rinsing devices or triple rinsing with water to reduce any product residues in the container to insignificant levels. Don't dispose product or containers on ponds, rivers or ditches. Don't re-use containers for other purposes. Waste disposal and recycling contractors will take cleaned containers. Waste resulting from the use of the product must be disposed on site or on an approved waste disposal facility. Empty the sprayer out in the field being treated by spraying out on to a relatively pest free part of the field left unsprayed or under-dosed for the crop.
Waste codes/waste designations according to LoW	Not applicable
Waste treatment-relevant information	None
Sewage disposal-relevant information	Waste should not be disposed of by release to sewers
Other disposal recommendations	None

Section 14 Transport Information

Inland transport	Not restricted
Sea transport	Not restricted
Air transport	Not restricted

Section 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the mixture

Authorisations	Not relevant
Restrictions on use	Not relevant

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

Section 16 Other information

This information only concerns the above-mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

i Indication of changes

Adapted to the regulation (EC) No. 1272/2008 [CLP]

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