SAFETY DATA SHEET

According to regulation (EC) No. 1907/2006 and its amendment regulation (EC) No. 2015/830

MADEX TOP

Last review 24.05.2017

Section 1 Identification of the mixture and of the company

1.1 Product identifier

Product name Madex Top ®
Synonyms

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

Manufacturer/Supplier Andermatt Biocontrol AG
Address Stahlermatten 6
6146 Grossdietwil
Phone (technical) +41 (0)62 917 5125
E-mail contact@biocontrol.ch

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]

2.2 Label elements

Store locked up.
Keep out of the reach of children.
If medical advice is needed, have product container or label at hand.
To avoid risks to human health and the environment, comply with the instructions for use.
Contains Cydia pomonella Granulovirus. 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

Cydia pomonella granulovirus
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 Change any contaminated or wetted clothing at once.
If poisoning occurs contact a doctor or Swiss Toxicology Centre.

Following inhalation 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.
### 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 103 - 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 1200 mPa × s
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

<table>
<thead>
<tr>
<th>11.1 Information on toxicological effects</th>
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<tbody>
<tr>
<td><strong>Acute toxicity</strong></td>
<td>Rat, oral, $5 \times 10^9$ granules/kg BW (AcNPV), no adverse effects</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>Rabbit, contact, 0.5 mL/animal ($2.2 \times 10^{13}$ granules) of CpGV/L for 4 h, no adverse effect</td>
</tr>
<tr>
<td><strong>Serious eye damage/irritation</strong></td>
<td>Rabbit, contact, 0.1 mL/eye ($2.2 \times 10^{13}$ granules) of CpGV/L for 4 h, no adverse effect</td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitization</strong></td>
<td>Guinea pig, inhalation, 35 mg CpGV (7 x 10^8 granules) per m^3 for 15 min, no adverse effects</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
<td>Not classified</td>
</tr>
<tr>
<td><strong>Reproductive toxicity</strong></td>
<td>Not classified</td>
</tr>
<tr>
<td><strong>STOT-single exposure</strong></td>
<td>Not existing</td>
</tr>
<tr>
<td><strong>STOT-repeated exposure</strong></td>
<td>Not existing</td>
</tr>
<tr>
<td><strong>Aspiration hazard</strong></td>
<td>Not relevant</td>
</tr>
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Section 12  Ecological information

<table>
<thead>
<tr>
<th>12.1 Toxicity</th>
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<tbody>
<tr>
<td><strong>Acute (short-term) toxicity</strong></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td><em>Oncorhynchus mykiss</em>, 96 hour LC_{50} &gt; 100 mg/L = $2.0 \times 10^9$ CpGV/L</td>
</tr>
<tr>
<td>Crustacea</td>
<td><em>Daphnia magna</em>, 48 hour LC_{50} &gt; 100 mg/L = $2.0 \times 10^9$ CpGV/L</td>
</tr>
<tr>
<td>Algae/aquatic plants</td>
<td><em>Scenedesmus subspicatus</em>, 72 hour EC_{50} &gt; 100 mg/L = $2.0 \times 10^9$ CpGV/L</td>
</tr>
<tr>
<td>Other organisms</td>
<td><em>Lemna gibba</em>, 7 day EC_{50} &gt; 100 mg/L = $3.1 \times 10^9$ CpGV/L</td>
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<tr>
<th>12.2 Persistence and degradability</th>
<th></th>
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<tbody>
<tr>
<td>Abiotic Degradation</td>
<td>pH</td>
</tr>
<tr>
<td>Physical- and photo-chemical elimination</td>
<td>UV light</td>
</tr>
<tr>
<td>Biodegradation</td>
<td>Soil microflora</td>
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<tr>
<th>12.3 Bioaccumulative potential</th>
<th></th>
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<tbody>
<tr>
<td>Octanol/water partition coefficient (Kow)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Bioconcentration factor (BCF)</td>
<td>Not determined</td>
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<tr>
<th>12.4 Mobility in soil</th>
<th></th>
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<tr>
<td>Known or predicted distribution to environmental compartments</td>
<td>CpGV persists in the soil for a fairly long period in the immobilised state and does not accumulate.</td>
</tr>
<tr>
<td>Surface tension</td>
<td>Not determined</td>
</tr>
<tr>
<td>Adsorption/Desorption</td>
<td>Not determined</td>
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<tr>
<th>12.5 Results of PBT and vPvB assessment</th>
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<tbody>
<tr>
<td>This mixture does not contain any substances that are assessed to be a PBT or a vPvB.</td>
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<tr>
<th>12.6 Other adverse effects</th>
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<tbody>
<tr>
<td>None</td>
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<tr>
<th>12.7 Additional information</th>
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## 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

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<tr>
<th>Inland transport</th>
<th>Not restricted</th>
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<tr>
<td>Sea transport</td>
<td>Not restricted</td>
</tr>
<tr>
<td>Air transport</td>
<td>Not restricted</td>
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## Section 15 Regulatory information

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

<table>
<thead>
<tr>
<th>Authorisations</th>
<th>Not relevant</th>
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<tbody>
<tr>
<td>Restrictions on use</td>
<td>Not relevant</td>
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### 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.

### Indication of changes

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

**Date of printing**
24-May-17

**Composed by**
Philip Kessler