

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Bruco MAPP 17919

Contains *Bacillus thuringiensis subsp. kurstaki*, 540 g/kg water dispersible granule

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

For use only as a biological insecticide for agricultural use

### 1.3. Details of the supplier of the safety data sheet

ProGreen Weed Control Solutions Ltd  
Unit 7 Spalding Road Business Park  
Spalding Road  
Bourne  
Lincolnshire  
PE10 9LF

T 0800 032 6262

E [info@progreen.co.uk](mailto:info@progreen.co.uk)

W <https://www.progreen.co.uk/>

### 1.4. Emergency telephone number

For product-related advice, our customer service team are available on 0800 032 6262 from  
Monday – Friday 8.30am – 5.00pm

For medical help or advice, contact the NHS by calling 111.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

CLASSIFICATION according to Regulation EC 1272/2008 Classification, Labelling and Packaging  
Not classified as hazardous

### 2.2. Label elements

Label elements in accordance with Regulation (EC) 1272/2008:

#### Precautionary statements:

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352: IF ON SKIN: Wash with plenty of soap and water

P363: Wash contaminated clothing before reuse

P501: Dispose of contents/container to a licensed hazardous-waste contractor or collection site except for empty clean containers, which can be disposed of as non-hazardous waste.

EUH 401: To avoid risks to human health and the environment, comply with the instructions for use.

### 2.3. Other hazards

Contains *Bacillus thuringiensis*. Micro-organisms may have the potential to provoke sensitising reactions.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

International Chemical Identification	EC No	CAS No	Classification in accordance with Regulation (EC) 1272/2008	% w/w
Bacillus thuringiensis subsp. kurstaki (Strain ABTS-351, serotype 3a3b)	-	N/a	Not classified	54

Please refer to section 16 for full text of hazard statements not displayed in section 2 or 3.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General

In all cases of doubt, seek medical attention.

#### Inhalation

Move to fresh air. If symptoms persist, seek medical advice.

#### Skin

Remove contaminated clothing. Wash immediately with soap and water. Launder clothes before reuse.

#### Eye

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

#### Ingestion

Rinse mouth. Never induce vomiting in unconscious or confused persons. Always seek medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. May have a potential to provoke sensitising reactions.

### 4.3. Indication of any immediate medical attention and special treatment needed

Symptomatic treatment is advised.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

Dry chemical powder, carbon dioxide, foam, sand or water.

### **5.2. Special hazards arising from the substance or mixture**

Thermal decomposition may evolve toxic and irritant vapours.

### **5.3. Advice for firefighters**

Wear self-contained breathing apparatus. Wear suitable protective clothing and eye/face protection. Water used to extinguish a fire should not be allowed to enter the drainage system or watercourses.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **For non-emergency personnel**

Avoid contact with skin.

Wear protective gloves, safety goggles or face shield, and suitable protective clothing.

Remove ignition sources.

Evacuate the danger area.

#### **For emergency responders**

Avoid contact with skin.

Wear protective nitrile gloves, safety goggles or face shield, and suitable protective clothing.

Remove ignition sources.

Evacuate the danger area or consult an expert.

### **6.2. Environmental precautions**

Do not allow escape into sewage system or watercourses. Do not wash residues into drains or other waterways.

### **6.3. Methods and material for containment and cleaning up**

**Containment of a spill** Do not allow escape into sewage system or watercourses.

**Clean-up procedures** Clean up spills immediately. Sweep up and place into sealable containers. Dig up heavily contaminated soil and place into drums. Use a damp cloth to clean floors and other objects, and also place in sealable container. Dispose of all waste and contaminated clothing in the same manner as waste chemicals (i.e. via an authorized disposal facility). Do not wash residues into drains or other waterways.

### **6.4. Reference to other sections**

See section 8 for personal protection and section 13 for disposal considerations.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

The usual precautions for handling chemicals should be observed. For personal protection see section 8. No specific recommendations for fire and explosion prevention

### 7.2. Conditions for safe storage, including any incompatibilities

Store in a dry and cool place, keep away from sunlight. Keep container in a well-ventilated place. Keep away from food, drink and animal feeding-stuffs. Do not drink, eat and smoke in work areas. Do not mix with water (except for the normal preparation).

### 7.3. Specific end use(s)

For use only as a biological insecticide for agricultural use

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

There is no national exposure limit for this product.  
No chemical safety report is required for this kind of product.

### 8.2. Exposure controls

**Appropriate engineering controls** Provide adequate ventilation.

#### Individual protection measures

**Respiratory** In case of dust formation, use dust mask.

**Hand** Wear protective nitrile gloves.

**Eye** Wear safety goggles or face shield.

**Skin and body** Wear suitable protective clothing.

**Other information** Launder clothes before reuse.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**Name** *Bacillus thuringiensis subsp. kurstaki*, 540 g/kg water dispersible granule

**Appearance** granule (Visual assessment)

**Colour** light brown (Visual assessment)

**Odour** musty, yeast like odour (Olfactory assessment)

**Odour threshold** not determined

**pH value** 4.49 (1% in water, 25°C) (CIPAC MT 75.2)

**Melting point/freezing point** not determined

**Initial boiling point & boiling range** not applicable

**Flash point** not applicable

**Evaporation rate** not applicable

**Flammability** not "highly flammable" (based on the characteristics of the active substance and ingredients)

**Upper/lower flammability or explosive limits** not determined

**Vapour pressure** not applicable

**Vapour density** not applicable

**Relative density** not applicable

**Bulk density** 0.473 g/ml (23°C) (FIFRA 151A-16)

**Solubility in water** suspends and partially soluble in water

**Solubility in other solvents** not applicable

**Partition coefficient n-octanol/water** not applicable

**Autoignition temperature** 252°C (EEC A.16)

**Decomposition temperature** no decomposition up to the autoignition temperature

**Dynamic viscosity** not applicable

**Kinematic viscosity** not applicable

**Explosive properties** not explosive (based on the characteristics of the active substance and ingredients)

**Oxidising properties** not oxidising (based on the characteristics of the active substance and ingredients)

## 9.2. Other information

None specified.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under recommended storage and handling conditions (see also section 7).

### 10.2. Chemical stability

Stable for a minimum of 2 years under recommended storage and handling conditions (see section 7).

### 10.3. Possibility of hazardous reactions

None known

### 10.4. Conditions to avoid

Avoid high temperature, light, humidity

### 10.5. Incompatible materials

Oxidisers

### 10.6. Hazardous decomposition products

Thermal decomposition may evolve toxic and irritant vapours (see also section 5).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Name *Bacillus thuringiensis subsp. kurstaki*, 540 g/kg water dispersible granule

**Acute toxicity**

**Oral LD50 rat:** >5050 mg/kg (OECD 401)

**Dermal LD50 rabbit:** >2020 mg/kg (OECD 402)

**Inhalation LC50 rat (4 hours):** > 5.15 mg/l (nose only) (OECD 425)

### **Irritation**

**Skin** slightly irritating (OECD 404)

**Eye** moderately irritating (not irritant in the sense of 2001/59/EC) (OECD 405)

**Sensitization** not sensitising (Buehler test) (OECD 406)

Based on the available data, no classification criteria are met for any of these hazard classes.

### **Information on likely routes of exposure**

This product is for agricultural use, therefore the most probable routes of exposure are via skin or inhalation.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

**Name** *Bacillus thuringiensis subsp. kurstaki*, 540 g/kg water dispersible granule

**Algae** Acute toxicity, 72h- (*Pseudokirchneriella subcapitata*): EC50 = 50.84 mg/l (OECD 201)  
NOEC = 10 mg/l

**Bees** Acute oral toxicity, 48h-LD50 (*Apis mellifera*): > 222.41 µg/bee (OECD 213)

Acute contact toxicity, 48h-LD50 (*Apis mellifera*): > 185.0 µg/bee (OECD 214)

The following data are applicable to the ingredient(s) listed below:

**Name** *Active substance, Bacillus thuringiensis subsp. kurstaki technical grade*

**Fish** Infectivity/pathogenicity, 32d-LC50 (*Oncorhynchus mykiss*):

> 2.87 x 10<sup>9</sup> cfu/l test media (>143.5 mg as/l) (FIFRA Guideline 154-19)

Infectivity/pathogenicity, 32d-LC50 (*Lepomis macrochirus*):

> 2.87 x 10<sup>9</sup> cfu/l test media (>143.5 mg as/l) (FIFRA Guideline 154-19)

**Daphnia** Toxicity, (*Daphnia magna*) 21d-EC50: (adult mortality / immobility): 14 mg/l  
NOEC < 5 mg/l (FIFRA 154-20)

**Bees** Oral toxicity, 14d-LD50 (*Apis mellifera*): >4042 µg/bee (FIFRA 154A-24)

**Birds** Toxicity, 5d-NOEC (Bobwhite quail): > 2857 mg/kg b.w./d (FIFRA 154A-16)  
(Mallard duck): > 2857 mg/kg b.w./d (FIFRA 154A-16)

**Earthworm** Toxicity, 30days-LC50 (*Eisenia foetida*): > 1000 mg/kg soil (no effect). (OECD 207)

### **12.2. Persistence and degradability**

The following data are applicable to the ingredient(s) listed below:

**Name** *Active substance, Bacillus thuringiensis subsp. kurstaki technical grade*

**Degradation Biotic** Btk is naturally present in the environment; leaching is unlikely to occur.

**Degradation Abiotic** Btk shows a rapid loss of activity in response to UV light; increasing humidity also contributes to this reduction. High values of pH (pH9) also decrease the insecticidal activity.

### **12.3. Bioaccumulative potential**

The following data are applicable to the ingredient(s) listed below:

**Name** *Active substance, Bacillus thuringiensis subsp. kurstaki technical grade*

**Bioaccumulation** Not applicable; the substance is not pathogenic to non-target organisms and has not been seen to reproduce in non-target organisms.

### **12.4. Mobility in soil**

The following data are applicable to the ingredient(s) listed below:

**Name** *Active substance, Bacillus thuringiensis subsp. kurstaki technical grade*

Adsorption KFoc values: not applicable for microbial substances

Desorption KFoc-des values: not applicable for microbial substances

#### **12.5. Results of PBT and vPvB assessment**

Not required (no chemical safety report required).

#### **12.6. Other adverse effects**

No other known adverse effects on the environment.

### **SECTION 13: Disposal considerations**

#### **13.1. Waste treatment methods**

**Substance and/or Mixture** According to local regulations. For further advice contact manufacturer.

**Contaminated packaging** According to local regulations.

### **SECTION 14: Transport information**

#### **14.1. UN number**

None

#### **14.2. UN proper shipping name**

Not relevant

#### **14.3. Transport hazard class(es)**

Land transport ADR/RID class: not restricted label: not relevant

IMO/IMDG code class: not restricted

Air transport ICAO-TI/IATA-DGR class: not restricted

#### **14.4. Packing group**

Not relevant

#### **14.5. Environmental hazards**

Marine pollutant: no

#### **14.6. Special precautions for user**

EMS: not relevant

No other special precaution required.

#### **14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable

## **SECTION 15: Regulatory information**

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

There is no specific regulation/legislation for this mixture.

### **15.2. Chemical safety assessment**

No chemical safety assessment is required for this mixture.

## **SECTION 16: Other information**

### **Method for evaluating information referred to in Article 9 of Regulation (EC) No 1272/2008 used for the purpose of classification:**

Classification based on tests and properties of the active substance.

### **Full text of hazard statement(s) used in this document:**

None

This Safety Data Sheet is compiled in accordance with Regulation (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), as amended by Regulation (EU) 2015/830.

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