# teppeki

An aphicide for the control of most aphids in Potatoes, Cereals (Wheat, Barley, Triticale, Spelt, Rye, Oats), Fodder beet and Sugar beet, Oilseed rape (winter) and Orchards (Apple and Pear).

Water dispersible granules (WG) containing 500 g/kg flonicamid

PCS No.: 04399

**GROUP** 

29

INSECTICIDE

#### PROTECT FROM FROST FOR PROFESSIONAL USE ONLY

Production date / Batch number: see bottle

FOR USE AS AN AGRICULTURAL AND HORTICULTURAL INSECTICIDE



Marketing company: Belchim Crop Protection Ltd.

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## Net contents: 2kge



#### Teppeki®

Water dispersible granules (WG) containing 500 g/kg flonicamid.

#### WARNING



#### Causes serious eye irritation.

Wash hands, forearms and face thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste

Contains Disodium maleate (ISO) (CAS: 371-47-1). May produce an allergic reaction.

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

PCS No.: 04399

#### 24 hour emergency number: 0032 14 58 45 45

Distributed by:



#### **Whelehan Crop Protection**

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Approval holder:



#### **ISK BIOSCIENCES Europe N.V.**

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#### IMPORTANT INFORMATION - FOR USE ONLY AS AN AGRICULTURAL AND HORTICULTURAL INSECTICIDE

Crops / Situations	Maximum individual dose	Maximum number of treatments	Maximum total dose	Latest time of application:
Potatoes (ware)	0.16 kg/ha	2	0.32 kg/ha	BBCH 55 or 70 days before harvest, whichever comes first
Wheat, Triticale, Spelt, Rye, Barley (winter)	0.14 kg/ha	2	0.28 kg/ha	28 days before harvest
Barley (spring), Oats (winter), Oats (spring)	0.14 kg/ha	1	0.14 kg/ha	28 days before harvest
Apples, Pears	0.14 kg/ha	3	0.42 kg/ha	21 days before harvest
Beet-fodder**, Beet-sugar	0.14 kg/ha	1	0.14 kg/ha	60 days before harvest
Oilseed rape (winter)	0.1 kg/ha	1	0.1 kg/ha	Eight true leaves unfolded (GS18)

Specific pests controlled: A range of aphid species

Other specific restriction:

\*\*Fodder beet must not be grazed by livestock or harvested for animal consumption until at least 60 days following the last application.

Do not use on seed potatoes.

Do not use in tank mix with oil-based products when used on ware potatoes.

The total maximum number of treatments with any flonicamid-based product per crop cycle or per agricultural season must never exceed the maximum number indicated on the label of one of the flonicamid-containing products.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE.
FOLLOW THE PRINCIPLES OF GOOD PLANT PROTECTION PRACTICE.

#### **SAFETY PRECAUTIONS**

#### Operator protection

ENGINEERING CONTROL OF OPERATOR EXPOSURE must be used where reasonably practicable in addition to the following personal protective equipment.

- WEAR SUITABLE PROTECTIVE GLOVES when handling the product, when handling contaminated surfaces and when applying with hand-held equipment.
- WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying with broadcast air assisted application equipment.
- During handling of the concentrated product as well as with the spray solution, wear standard protective clothing (especially rubber boots, gloves and eye protection).
- WHEN USING DO NOT EAT, DRINK OR SMOKE
- Avoid any unnecessary contact with the product.
- Misuse can have adverse effects on health.

#### **Environmental protection**

- Do not contaminate water with the product or its container. (Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads).
- Avoid release into the environment. Refer to special instructions / Safety Data Sheets.
- Avoid producing drift during application.
- Make sure that product or spray solution cannot contaminate natural surface water.
- DANGEROUS TO BEES. To protect bees and pollinating insects do not apply to crop plants when in flower. Do not use where bees are actively foraging. Do not apply when flowering weeds are present.

#### Storage and disposal

- KEEP OUT OF REACH OF CHILDREN

- KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS
- Store away from food and feeds.
- Store in a cool, dry place.
- Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

#### **IMPORTANT**

- DO NOT ALLOW THE PRODUCT TO STAND OVERNIGHT.
- Ensure that the spraying equipment and especially nozzles have been thoroughly cleaned before starting spraying, in particular when equipment has been used for other purposes and on other crops.

Spraying equipment should be calibrated prior to use to ensure accurate dosing.

#### **DIRECTIONS FOR USE**

Important: this information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of the product.

**TEPPEKI®** is a selective aphicide with activity against major aphid species on potato, wheat, spelt, triticale, rye, barley, oats, apples, pears, fodder beet, sugar beet and oilseed rape (winter).

#### **Application**

#### **IMPORTANT - Product Measurement**

As TEPPEKI® is applied at a very low dose rate, it is important to accurately weigh the required amount of product for each spray operation in order to ensure application of the correct dose.

### WINTER WHEAT, SPRING WHEAT, WINTER BARLEY, TRITICALE, SPELT and RYE

Control of aphids attacking the ears: Macrosiphum avenae, Metopolophium dirhodum and Rhopalosiphum padi.

Target the first application against aphids when warning systems forecast significant aphid infestation; or when the economic threshold is reached.

Rate: The application rate of **TEPPEKI®** is **0.14 kg/ha**. Maximum total dose is 0.28 kg/ha

Water volume: 200 to 500 l/ha

<u>Spray schedule:</u> **TEPPEKI®** has a persistence of up to **21** days. The maximum number of applications is **2 per crop**.

<u>Pre harvest interval:</u> The last spray should not be applied later than <u>28 days</u> before harvest.

#### WINTER BARLEY

Autumn application

Control of virus-carrying aphids:

Target the application against aphids when warning systems forecast significant aphid infestation, or when the economic threshold is reached. Applications can be made from the one leaf stage of the crop up to mid-tillering.

Rate: The application rate of **TEPPEKI®** is 0.14 kg/ha.

Water volume: 200 to 500 L/ha

Spray schedule: **TEPPEKI®** has a persistence of up to **21** days. The maximum number of applications is **1 per crop**.

#### SPRING BARLEY, WINTER OATS, SPRING OATS

Control of aphids:

Target the first application against aphids when warning systems forecast significant aphid infestation; or when the economic threshold is reached. Applications can be made from the flag leaf stage (BBCH 39) up to the late milk (BBCH 77) stage of crop growth.

Rate: The application rate of **TEPPEKI®** is **0.14 kg/ha**. Maximum total dose is 0.14 kg/ha.

Water volume: 200 to 500 l/ha

Spray schedule: **TEPPEKI®** has a persistence of up to **21** days. The maximum number of applications is **1 per crop**.

<u>Pre harvest interval:</u> The last spray should not be applied later than <u>28 days</u> before harvest.

#### **POTATO**

Aphids controlled: Macrosiphum euphorbiae, Myzus persicae, Aphis nasturtii. Target the first application when warning systems forecast significant aphid infestations.

Do not use on seed potatoes. Do not use in tank mix with oil-based products when used on ware potatoes.

Rate: The application rate of **TEPPEKI®** is **0.16 kg/ha**. Maximum total dose is 0.32 kg/ha.

Water volume: 200 to 500 l/ha

<u>Spray schedule:</u> **TEPPEKI®** has a persistence of up to **21** days. The maximum number of applications is **2 per crop**.

<u>Pre harvest interval:</u> The last spray should not be applied later than **BBCH** 55 (buds of first inflorescence extended to 5mm) or 70 days before harvest, whichever comes first.

#### **APPLES and PEARS:**

Aphids controlled on apple: *Dysaphis plantaginea* and *Aphis pomi*. Aphids controlled on Pear: *Dysaphis pyri*.

Target the first application when warning systems forecast significant aphid infestations (generally early spring on new developing leaves) and when aphids are present at the end of egg hatch. In apples this is usually around green cluster to pink bud and in pears this is usually from green cluster to petal fall. Later application may be required. Ensure good cover of foliage for effective control.

Rate: The application rate of **TEPPEKI®** is **0.14 kg/ha**. Maximum total dose is 0.42 kg/ha.

Water volume: 200 to 1000 l/ha (up to 1500 l/ha if necessary).

Water volume is dependent on tree size, stage of development and spraying equipment used.

<u>Spray schedule:</u> **TEPPEKI®** has a persistence of up to **21** days. The maximum number of applications is **3 per year**.

<u>Pre harvest interval:</u> The last spray should not be applied later than <u>21 days</u> before harvest.

### CONSULT PROCESSOR BEFORE USING ON APPLE OR PEAR CROPS FOR PROCESSING

#### **FODDER BEET and SUGAR BEET**

Control of virus-carrying aphids: Black bean aphid (*Aphis fabae*) and Peach potato aphid (*Myzus persicae*)

Target the application against aphids when warning systems forecast significant aphid infestation, or when the economic threshold is reached. Applications can be made from the two leaf stage of the crop, generally May to June. For virus control, where thresholds indicate treatment is necessary, apply TEPPEKI® to the earliest permissible growth stages of the crop, when they are the most susceptible.

Rate: The application rate of **TEPPEKI®** is **0.14 kg/ha**.

Water volume: 200 to 500 L/ha.

<u>Spray schedule:</u> **TEPPEKI®** has a persistence of up to **21** days. The maximum number of applications is **1 per crop**.

<u>Pre harvest interval:</u> The last spray should not be applied later than <u>60 days</u> before harvest. Fodder beet must not be grazed by livestock or harvested for animal consumption until at least 60 days following last application.

#### WINTER OILSEED RAPE

Autumn application

Control of aphids including virus-carrying aphids: Peach potato aphid (*Myzus persicae*).

Target the application against aphids when warning systems forecast significant aphid infestation, or when the economic threshold is reached. Applications can be made in the autumn from the 2 leaf stage of the crop.

Rate: The application rate of TEPPEKI® is 0.10 kg/ha.

Water volume: 200 to 300 L/ha.

<u>Spray schedule:</u> **TEPPEKI®** has a persistence of up to **21** days. The maximum number of applications is **1 per crop**.

<u>Pre-harvest interval:</u> The last spray should not be applied later than the 8 leaf stage of the crop in the autumn.

#### Unintended effects

Evidence suggests that TEPPEKI® has limited initial effects on populations of the beneficial mite *Typhlodromus pyri*, and any effect is short lived.

#### **Resistance Management Strategy:**

Spring barley, Winter oats, Spring oats, Fodder beet, Sugar beet and Winter oilseed rape: Do not apply more than 1 spray of TEPPEKI® per crop.

Wheat, Triticale, Spelt, Rye, Winter barley and potatoes: Do not apply more than 2 sprays of TEPPEKI® per crop.

Apples and pears: Do not apply more than 3 sprays of TEPPEKI® per year. In a program of insecticides use a maximum of 2 consecutive applications of TEPPEKI® on apples and pears. If further treatments are required use at least one application of an insecticide having a different mode of action to TEPPEKI® before applying further TEPPEKI®.

The total maximum number of treatments with any flonicamid-based product per crop cycle or per agricultural season must never exceed the maximum number indicated on the label of one of the flonicamid-containing products.

TEPPEKI® belongs to the IRAC mode of action group 29. Strains of some aphid species are resistant to many aphicides. Where aphids resistant to products containing flonicamid occur, TEPPEKI® is unlikely to give satisfactory control. Repeat treatments are likely to result in lower levels of control.

#### TEPPEKI® is a feeding inhibitor.

Do not make repeat applications of an insecticide from the same chemical subgroup (indicated by the IRAC MoA Group number) if it appears not to work at full rate and if the product has been applied correctly.

Integrate other control methods (chemical, cultural, biological) into insect control programs. For more information on insecticide resistance consult the IRAC website: http://www.irac-online.org/

#### Preparation of the spray solution:

Add a minimum of 50% of the required water into the spraying tank, and agitate when adding the required amount of TEPPEKI®. Finally add the rest of the required water volume. Keep the spray solution agitated until all product is applied. Never prepare more spray solution than required. Double rinse the empty product container and add the remaining diluted product to the spray solution.

TEPPEKI® should be applied evenly over the crop via tractor mounted or drawn boom or air assisted sprayer. Appropriate measures to avoid drift (follow appropriate wind speed guidelines) onto non-target crops or watercourses should be taken

#### **STORAGE**

Reduce or avoid exposure and/or contact with the product. Keep container tightly closed.

Store unused product in tightly closed, original container in a cool, dry area, preferably in a locked storage area. Store in such a manner as to prevent cross contamination. Keep away from food, drink, and animal feed stuffs, or any other material intended for consumption or use by humans or other animals. Do not store near a heat source or open flame. Keep dry and frost proof in a suitable pesticide store between 0 and 32°C.

#### APPLICATION EQUIPMENT CLEANING PROCEDURE:

Ensure that no or only a minimal quantity of product remains in the spraying tank after field application. Upon completion dilute the remainder of the spray solution with the tank cleaning water, do not spray these on the treated fields. Any spillage should be collected and disposed of in appropriate chemical waste. In no way should contamination of waterways or surface water be allowed to occur. Thoroughly wash out all equipment after use. For disposal of

washings, follow appropriate procedures.

#### WARRANTY

The seller makes no warranty, expressed or implied, with regard to the use of the product other than that indicated on the label. The purchaser and user shall assume all risk associated with use and/or handling and/or the storage of the product, if this use and/or handling and/or storage are carried out contrary to the instructions on the label.

#### **DAMAGES**

Buyer's or user's exclusive remedy for damages, breach of warranty, or negligence, shall be limited to the direct damage, and shall not exceed the purchase price of the product, and shall not include any incidental or consequential damages.

TEPPEKI® is a registered trademark of Ishihara Sangyo Kaisha Ltd; Japan

To access the Safety Data Sheet for this product scan the QR code or use the weblink below:



WEBLINK to specific data sheet on manufacturer's website:

http://www.belchim.co.uk/pdf/MSDS/Teppeki\_MSDS-IE.pdf

Alternatively, contact your supplier.

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