



PROVAP 18

(Professional oxalic acid vaporizer)

INSTRUCTION MANUAL



Ing. Aleš Oharek
Špitálská 738
684 01 Slavkov u Brna
Česká republika



+420 776 181 982
+420 606 689 367



www.oharkovi.cz



info@oharkovi.cz

What you need

- Oxalic Acid vaporizer – PROVAP 18
- Oxalic Acid (OA) crystals
- Mask approved for Oxalic Acid fumes (for example this one from 3M OV/N95)
- Acid resistant gloves
- Eye protection – protection glasses
- Cloths to block entrances

Safety instructions

- Always wear your mask, eye protection and gloves.
- Avoid skin contact with crystals, as this may cause burns.
- More information on oxalic acid safety data sheet
- **PROVAP must not be used in wet environments and in the rain!**

- **The vaporizer does not include battery undervoltage protection!!! Therefore, it is necessary to use the vaporizer with discretion in order not to completely discharge and thus damage the battery!**
- **Damage to the battery may cause damage or injury for which we are not responsible and the user assumes all risks associated with using the vaporizer.**
- **If the device restarts itself, disconnect the battery immediately!!! This is caused by low battery voltage or thermal protection inside the battery.**
- **Always store the device without the battery connected!**
- **Be sure to follow the safety instructions according to the manufacturer of your battery!**
- **Access to the operation of this device is prohibited for children and adolescents!**

Operating instructions

- PROVAP is best used from the back of the hive, where a small hole is drilled in the back of the bottom. This hole is needed to insert the vaporizer tube. Using the hole in the back of the hive at this location is the easiest because it eliminates the inconvenience of flying bees. The friction between the tube and the drilled hole also holds the vaporizer in place during evaporation, allowing you to prepare another dose.
 - You can also use PROVAP from the front of the hive, where you insert PROVAP into the eye in the upper attachment and evaporate the acid.
1. Connect the vaporizer to the battery according to the purchased version. It takes approximately 2 minutes to reach operating temperature. When the red value on the display shows a temperature of 230°C, PROVAP is ready for use.
 2. Insert PROVAP into the opening of the beehive. Insert a stainless steel piston dispenser with the appropriate amount of acid into the white teflon cap (into the recess). Use 1 gram of acid per one extension 39x24cm.

3. Depress the plunger to put the acid into the evaporation chamber.

Attention, the evaporation chamber is very hot !!!



4. The acid falls into the evaporation chamber and begins to evaporate. This will cause the temperature to drop to approximately 205 °C to 215 °C. The temperature starts to rise very quickly again. When it reaches 220 °C again, the evaporation is completed and you can move to the next hive. This whole cycle takes about 20 seconds!

5. After evaporation, all hive openings need to be sealed for approx. 10 minutes. It is not uncommon for the chamber temperature to rise above 230 °C to 250 °C during treatment. This is normal and within the tolerances of the device.

Conditions of use

- Carry out the treatment in still air at ambient temperatures above 5 °C.
- For better contact of bees with the substance, apply it in the evening.
- It can be applied only in the inter-bed period or in the case of compartments and swarms from which no honeycombs will be taken.
- The application does not work under the capped fetus.
- After 7 - 10 days, repeat the whole process at least 3 times.
- Repeat the procedure for three weeks, as acid fumes do not affect the mites in the fetal cells..
- The next day after treatment, count the number of mites on the hive pad. Mites fall down after application for another 2-3 weeks.
- Spring healing can be done only after the first flight of bees.

- Another application is recommended in the period from May to June.
- Autumn retreatment can only be performed during the period without bee brood in the months of November to December.
- The treatment should be combined with the evaporation of formic acid using equipment designed for this purpose.

NOTE: At lower ambient temperatures, for example in autumn, the fumes are more visible.

After finishing work

- **Turn off the device by removing the battery.**
- After the treatment is completed, clean the evaporating outlet tube of acid residues. Cleaning is best done when the vaporizer is cold. Clean with a thin steel wire and shake off acid residues. This prevents clogging of the tube with acid.

Evaporation temperature change

The correct value of the evaporator chamber temperature of this vaporizer is set to 220 °C to 230 ° C. However, you can change it as follows:

1. Switch on the vaporizer. The top line of the display (red numbers) shows the current evaporator chamber temperature. The bottom line of the display (green numbers) shows the preset temperature of the evaporation chamber.



2. To change the temperature setting, press the "SET" setting button on the left and then press the up and down arrows to set the value to the desired temperature.
3. Press the "SET" button again. This saves the new temperature setting.

Technical parameters

- DIMENSIONS (LxHxW) : 35x8x13 cm
- WEIGHT: 1300 g
- TEMPERATURE RANGE: 0°C až 250°C
- ELECTRIC POWER : 250 W
- POWER SUPPLY: 18V Parkside battery (optional Makita and others)
- MATERIAL : evaporation chamber -Cu a Al
handle - insulator - plastic

Package contents

- 1x oxalic acid vaporizer - PROVAP 18
- 1x adjustable oxalic acid dispenser (1-3 grams)
- 1x instruction manual

