



Read these instructions carefully



CAUTION: read the warnings

Please keep these instructions

## 1. INTENDED USE AND INDICATION FOR USE

Ecosave is an afterbite electrostimulator that, through the release of electrical micro-impulses, can reduce local symptoms - pain, burning, redness, swelling - caused by bites and/or stings from insects and other animals, such as:

- hymenoptera (e.g. bees, wasps, bumble-bees, etc.),
- arachnids (e.g. scorpions, spiders, etc.),
- marine animals (e.g. fishes, jellyfishes, stinging coral),
- snakes.

## 2. SPECIFICATIONS FOR USE

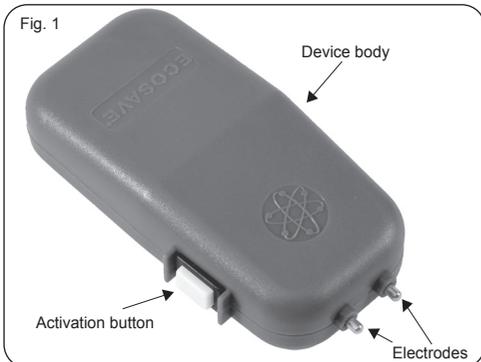
Ecosave is a **FIRST AID TOOL** that **DOES NOT REPLACE THE CONSULTATION OF A PHYSICIAN**.

You may use Ecosave while waiting for the intervention of a doctor or medical centre.

ATTENTION: this device is not intended for **ALLERGIC REACTIONS IN ALLERGIC PEOPLE**. In case of allergy, it is mandatory you follow your specialist's indications.

## 3. WHAT IT IS AND HOW IT WORKS

Ecosave is a pocket-size light electronic device that produces - through two electrodes - short discharges lasting ten microseconds approximately at one second regular intervals.



### 3.1 Use context

Ecosave can be part of the first-aid kit of any hiker, naturalist, forest ranger or environmental operator, farmer, beekeeper, gardener and any other person in charge of hunting and ichthyic supervising. Hunters may use Ecosave also on their dogs in case of a viper's bite, which often leads to the death of the affected animal.

## 4. SAFETY INFORMATION



### 4.1 CONTRAINDICATIONS:

**THIS DEVICE CANNOT BE USED in the following situation:**

- on patients wearing a cardiac pacemaker, implanted defibrillator, or other implanted metallic or electronic device;
- on patients diagnosed with heart disease or epilepsy;
- on pregnant women;
- on children under 6 years.

## 4.2 WARNINGS

### DO NOT USE:

- on open wounds or rashes, or over infected or pathological or abnormal skin conditions, on bleeding or secreting areas, and on mucous membranes;
- over your neck or across your chest
- on or around sensitive areas such as the mouth, tongue, eyes, ears and in general on the head and face area, internal part of the wrists or palms, fingertips, etc.
- if you are sensitive to electric stimulus;
- near flammable liquids or gas or if you have used an insect repellent and/or flammable substances (for example: perfume, deodorant, etc), as this device can ignite flammable substances;
- with wet hands or on wet skin.

## 4.3 PRECAUTIONS

• **PERSONAL USE ONLY IS RECOMMENDED:** use the device on a single patient. In order to avoid the transmission of infections, do not use on more than one patient.

- External use only.
- When this device is not used according to these Instructions, it can cause sensitivity or irritation at the site of application. Discontinue use if irritation occurs.
- Ecosave is a medical device: do not use it as a personal defense and/or offence tool.
- Keep it out of reach of children or people with limited sensorimotor skills. Small parts can be ingested or inhaled.

## 4.4 ATTENTION

- The electric shock principle is NOT effective against neurotoxic poison (some kinds of snakes, like cobra, mamba and some tropical animals: jellyfishes, fishes and other sea animals, insects and anthropoids).
- The use of Ecosave in absence of a bite and/or sting is not recommended. Its effects may be perceived as stronger than usual.
- **WARNING:** the safety and effectiveness has not been established in neonates and children.
- Any serious incident that occurs in relation to the device should be reported to the manufacturer (info@tecnimed.eu) and the competent authority of your country.

## 5. HOW TO USE ECOSAVE

Ecosave releases an impulse, whose effect – a **tingling sensation similar to the effect of an electric shock** – may vary according to the individual sensitivity and may be more relevant in children.

### REMEMBER:

- before pressing the button, make sure that both the electrodes are placed in contact with the skin.
- push the button and hold it until the discharge is released, and release the button.

A tingling sensation will be felt with every impulse. This sensation may vary according to the individual sensitivity and may be more relevant in children.

- use **AS SOON AS POSSIBLE AFTER BITE/STING** (ideally, in the first 5-6 minutes).

Proceed as follow:

## 5.1 BEES, WASPS, BUMBLE-BEES, ARACHNIDS, FISHES AND JELLYFISHES

Hymenopteral's and other animals' stings can be very dangerous and should not be underestimated.

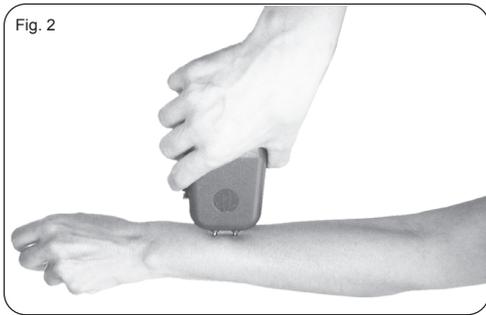
**5.1.1 Before using Ecosave** examine the affected area and remove the sting stuck into the skin, or possible remaining parts (thorns, tentacles or quills).

Dry up the affected area before using Ecosave (for example in case of 'jellyfishes' and/or 'venomous fishes' stings). Do not handle Ecosave with wet hands.

### 5.1.2 How to treat the area

- Put one device's electrode near the sting: pivot on it to treat the area;
- make sure that both the electrodes are placed in contact with the skin (see fig. 2).

Fig. 2



- pivot on the electrode that is nearest to the sting and apply from 3 to 7 discharges moving the device in circular pattern.
- If necessary, repeat the procedure after a few minutes.

### 5.1.3 Expected outcome

If the person is assisted quickly, in a few minutes the electric stimulation can reduce local symptoms (such as pain, soreness, reddening, swelling).

**REMEMBER:** Ecosave is a first aid tool. It does not act against the venom's effects: if you are allergic to hymenoptera or other animal stings, or if you don't know if you are, seek for urgent doctor/hospital assistance.

**ATTENTION:** Ecosave does not replace the specific treatments recommended for allergic people (i.e. specific immunotherapy or desensitizing therapy or emergency therapy with adrenaline) in severe systemic reactions.

### 5.2 SNAKES

Typically, snakebites leave on the skin two distinct small holes – at a distance of about 10 mm from each other – caused by the venomous teeth.

#### 5.2.1 How to treat the area

- Place the two electrodes on the two holes's area, making sure that both the electrodes are placed well in contact with the skin and give a first impulse.

- Then, keep one electrode near one of the holes and pivot around it with the other electrode;
- apply from 3 to 7 discharges, by moving the device in circular pattern.

- Carry out the same operation pivoting around the second hole. If necessary, repeat the procedure after a few minutes

#### 5.2.2 Expected outcome

If the person is assisted quickly, in a few minutes the electric stimulation can reduce local symptoms (such as pain, soreness, reddening, swelling).

#### ATTENTION:

**Ecosave can be used against viper's bites, whose poison acts locally through the blood as an hemocytotoxic agent. Ecosave is NOT effective against neurotoxic venom, like the cobra's one, which spreads through nerve fibres.**

**REMEMBER:** Ecosave does not act against the unlocal venom's effects. You must use Ecosave as a first aid tool while waiting to reach a medical center.

**Ecosave does not replace the foreseen medical therapy supplied in a medical center.**

## 6. CLEANING

- Remove the battery
- Wipe the surface of the device and electrodes with a soft cloth dampened with a mild detergent and water.
- Wrap the surface of the device and electrodes with disinfectant-soaked towels.
- Ensure the device is perfectly dry before use.
- Ensure to disinfect the device after each treatment (or, anyway, before it is stored).

## 7. HOW TO INSERT OR REPLACE BATTERY

- Open the battery hatch.
- Remove the old battery, if any, and dispose as required in the containers provided for this purpose.
- Insert 1 new AAA – LR03 battery, carefully complying with the position indicated in its housing.
- Close the hatch
- **Disconnect the battery and leave it inside the battery compartment when you do not need to use it.**

## 8. MAINTENANCE

- Avoid knocking and dropping it and keep it out of water and sources of heating. Should water penetrate into the device, ensure it is completely dry before use.
- Verify that the device battery works properly before any excursion or in case of fall, by pressing the button and releasing a test discharge in the air.

## 9. TECHNICAL DATA

- Discharge flashover voltage with 500 OHM load: approx. 600V
- Repeated shock of 5 microseconds (with 1 second breaks)
- Operating temperature: from 0 to 40°C (32/104°F)
- Power supply: 1.5V AAA battery
- ABS shock-proof container
- Measures mm 150 x 36 x 74
- Weight (battery included): approx. 145 gr
- IP protection degree: IP22
- Battery's life (if alkaline): about 1.200 shocks
- Expected life of the device: 10 years

## 10. SYMBOLS on the device, on its packaging or in this user manual

	Manufacturer		Operating instructions
	Date of manufacture expressed as 4 digits for the year and 2 digits for the month		Read these instructions carefully
	Medical Device		<b>CAUTION:</b> read the warnings
	UDI code		Direct current
	Lot Number		Applied part: type BF
	European Conformity mark: the product conforms to Regulation (EU) 2017/745 on medical devices. Conformity is verified by the notified body no. 0051 (IMQ)		Protected against insertion of objects >12,5 mm and against vertical dripping water when tilted up to 15°
			Recyclable material (packaging material)

Crossed-out wheeled bin (WEEE and batteries)

#### Instructions for disposal

This product contains electrical and electronic components and batteries that may contain materials which, if disposed with general waste, could be damaging to the environment. Dispose or recycle this product in accordance with local laws or regulations that apply.

#### WARRANTY

TECNIMED Srl guarantees Ecosave against defects due to faulty materials or manufacture for a 2 years period, starting from the date of purchase. In case of breakdown, please send the device to the manufacturer, together with a copy of the receipt (or any other proof of the date of purchase). Contact the manufacturer before sending the device: [info@tecnimed.eu](mailto:info@tecnimed.eu). Warranty does not cover possible damage caused by faulty/discharged batteries, carelessness, improper use or break of the device.

Ecosave 01000

It is a class IIa medical device

0051



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