

Betterlife

Nebuliser

User Manual



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Preface

Thank you for purchasing the Betterlife Nebuliser.

Please read this user manual carefully before using this device and keep it safe for later use, be sure to make it accessible to other users and observe the information it contains.

Nebuliser purpose

This nebuliser is a device used for the nebulisation of liquids and liquid medication (aerosols) for the treatment of the upper and lower respiratory tract.

For more information on possible applications, consult your doctor or pharmacist.

The device is suitable for inhalation at home. Medicines should only be inhaled when instructed by a doctor. Inhalation should be performed in a calm and relaxed atmosphere. Inhale slowly and deeply to enable the medicine to reach the small bronchi deep into the lungs. Exhale normally.

The following symbols appear in these instructions.



Warning - Warning instruction indicating a risk of injury or damage to health.



Important - Important safety note indicating possible damage to the device/accessory.

Safety notices



Warning

- Before use, ensure that there is no visible damage to the device or accessories. When in doubt, do not use the device and contact Betterlife customer service (see contact details on page 18).
- Using the device is not a substitute for consultation with or treatment from a doctor. Whenever you have any pain or illness, always contact your doctor first.
- If you have health concerns of any kind, contact your doctor.
- The device consists of the nebuliser and the atomiser. After using the atomiser, always follow the basic hygiene procedures listed in the manual (page 12)
- Always follow your doctor's instructions regarding the type of medicine to be used and the dose, frequency and duration of inhalation.
- Do not use the device in conjunction with ventilation systems.

Safety notices

- Only use medicines that have been prescribed or recommended by your doctor or pharmacist.
- If the device does not function correctly or if you begin to feel unwell or feel pain, stop using the device immediately. Consult your doctor prior to using the device.
- During use, hold the accessory, i.e mask, nosepiece or mouthpiece away from the eyes, as some nebulised medicines may cause damage to the eyes.
- Do not operate the device in the presence of flammable gases or if there is a high oxygen concentration.
- This device is not intended to be used by children or persons with restricted physical, sensory (e.g. insensitivity to pain) or mental abilities, or persons lacking in the required experience or knowledge for safe operation of the device, unless supervised or instructed by a person responsible for their safety.
- **NOT TO BE USED ON BABIES.**
- Store the device and its accessories out of the reach of children to prevent the risk of accidents and choking as a result of swallowing small parts or packaging material.
- Do not use attachments that are not recommended by the manufacturer.
- Connect the device only to the mains voltage listed on the rating label on the base of the device.
- Do not dip the device into water and do not use it in wet rooms. Do not allow any liquid to penetrate the device.
- Protect the device from strong impacts.
- Never touch the mains cable with wet hands, this can cause an electric shock.
- Do not pull the mains plug from the socket by the cord.
- Do not pinch or bend the mains cable, pull it over sharp objects, or allow it to hang freely, and protect it against sources of heat.
- If the mains cable or housing is damaged, contact Betterlife customer services (see contact details on page 18).
- Do not use the device if it has fallen or been dropped on the floor, been exposed to extreme humidity or is otherwise damaged. In case of doubt, contact Betterlife customer services (see contact details on page 18).
- The Betterlife Nebuliser must only be used with the appropriate Beurer accessories. The use of other accessories can impair the therapeutic efficiency and may damage the device.
- Opening the unit carries the risk of electric shock. Isolation from the mains supply is only guaranteed if the mains plug has been removed from the socket.

Safety notices

! Important

- Power cuts, sudden faults or other unfavourable conditions may render the device unusable. You are therefore recommended to keep a spare device or replacement medicine (as agreed with the doctor).
- If adaptors or extensions are required, these must comply with the applicable safety regulations. The electrical capacity and the maximum capacity specified on the adaptor must not be exceeded.
- The device and the mains cable must be stored away from sources of heat.
- Do not use the device in a room in which a spray has previously been used. If this is the case, ventilate the room before commencing treatment.
- Do not allow any objects to enter or obstruct the ventilation openings.
- Do not use the device if you notice an unusual noise.
- For hygiene reasons, each user must use their own accessories. These can be purchased from www.betterlife.co.uk.
- Always disconnect from the mains after use.
- Store the device in a location protected against environmental influences. The device must be stored in the specified ambient conditions.

Fuse

- The device contains an overload protection fuse. This must only be changed by authorised specialist personnel or contact Betterlife customer services (see contact details on page 18).
- The device also features a thermal fuse that switches off the nebuliser in the event of overheating. Should this occur, proceed as follows:
 - Switch off the appliance.
 - Disconnect from the mains.
 - Wait for a minimum of 30 minutes until the device has completely cooled down.
 - Switch the device on again, and observe whether it makes any abnormal noises. If there are no unusual noises, you can use the device again. Otherwise, contact Betterlife customer services (see contact details on page 18).

Safety notices

General notes



Warning

- The device should only be used:
 - on humans,
 - for its intended purpose (aerosol inhalation) and in the manner described in these instructions for use.
- **Any improper use can be dangerous.**
- In acute emergencies, first aid takes priority.
- Apart from the medication, use only distilled water or a saline solution in the device. Other liquids may cause defects to the nebuliser or atomiser.
- This device is not intended for commercial or clinical use, but only for individual, private household use.

Before using the device for the first time

! Important

- Before you use the device for the first time, remove all packaging materials. Please retain the box so you can store safely when not in use.
- Protect the device against dust, dirt and moisture. Never cover the device during operation.
- Do not use the device in very dusty environments.
- Switch the device off immediately if it is defective or malfunctioning.
- The manufacturer shall not be held liable for damage or injuries caused by improper or incorrect use.

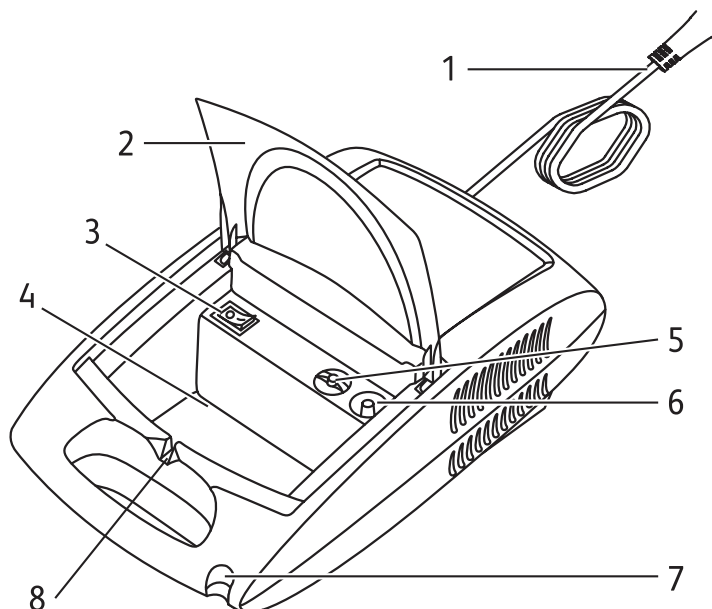
Repairs

Never open or attempt to repair the unit yourself, otherwise the equipment may no longer function. Failure to observe this instruction will invalidate the warranty.

- If the unit needs to be serviced or repaired, please contact Betterlife customer services (see contact details on page 18).

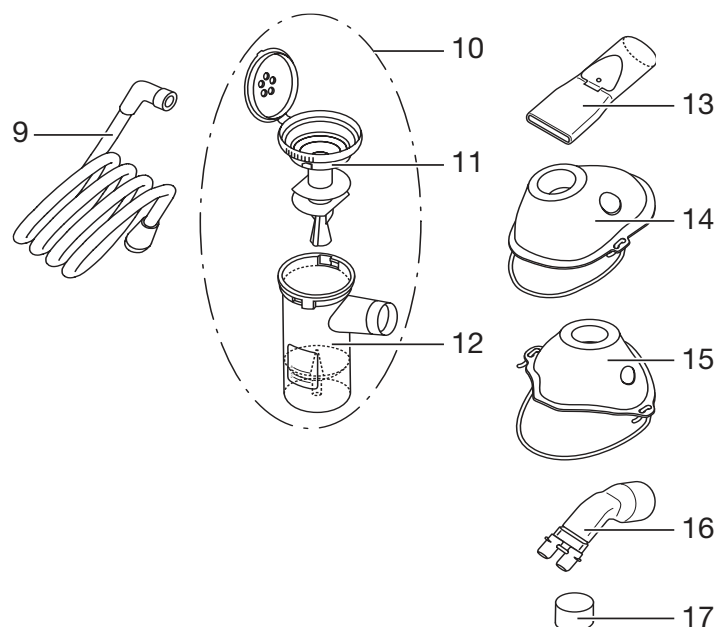
Parts

Overview of the nebuliser (the device)



- 1 Mains cable
- 2 Lid
- 3 On/off switch
- 4 Compartment for accessories
- 5 Filter cap with filter
- 6 Hose connector
- 7 Holder for atomiser
- 8 Channel for compressed air hose

Overview of atomiser and accessories



- 9 Compressed air hose
- 10 Atomiser
- 11 Atomiser insert
- 12 Medicine container
- 13 Mouthpiece
- 14 Adult mask
- 15 Child mask
- 16 Nosepiece
- 17 Replacement filters x 10

Initial use

Setup

Remove the device from the packaging. Place it on a flat surface.

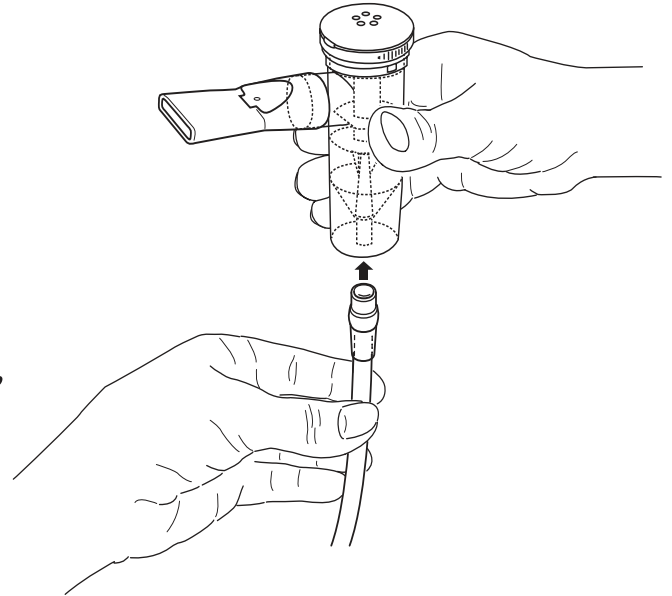
Ensure that the ventilation slits are free.

Open the lid [2] to access the accessories.

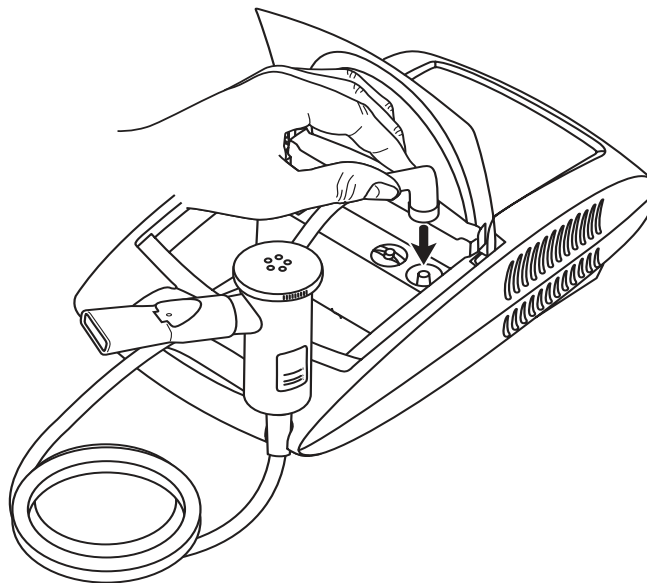
Before using the unit for the first time

Please note:

- The atomiser and accessories must be cleaned and disinfected before they are used for the first time. For information about this, see “Cleaning your equipment” section on page 12.
- Attach the compressed-air hose [9] to the bottom of the medicine container [12].



- Connect the other end of the hose [9] to the hose connector [6] on the device by lightly turning it.



Mains connection

Connect the unit only to the mains voltage listed on the rating label located on the base of the device.

- Insert the mains cable plug [1] into a suitable socket.
- Push the plug completely into the mains socket.

Initial use

Please note:

- Ensure that there is a socket near to where the device will stand.
- Lay the mains cable in such a way that no one can trip over it.
- To disconnect the nebuliser from the mains after use, first switch off the device and then remove the plug from the socket.

Operation

Warning

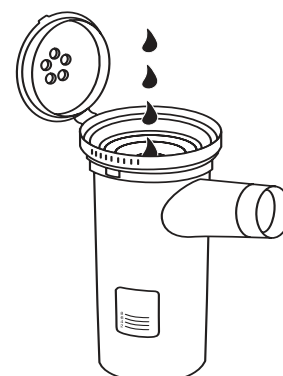
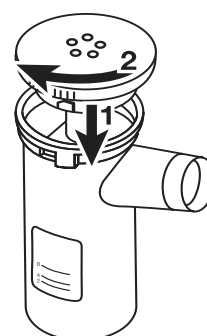
- For hygiene reasons, the atomiser [10] and the accessories must be cleaned after each treatment and after each use (see cleaning instructions on page 12).
- If several different medicines are to be inhaled in succession during therapeutic use, the atomiser [10] must be rinsed under warm tap water after each use. For information about this, see “Cleaning your equipment” section on page 12.
- Before each use, check that the hose connectors on the device [6] and the atomiser [10] are tight.
- Follow the instructions for changing the filter on page 11.
- Before each use, check that the device is functioning correctly. To do this, switch on the device (including the connected atomiser, but without any medication for a short time. If the atomiser [10] expels air, the device is functioning correctly.

1. Assembling the atomiser

- Insert the atomiser [11] into the medication container [12] and turn clockwise.

2. Filling the atomiser

- Open the lid of the atomiser [10].
- Fill with an isotonic saline solution or pour the medication directly into the atomiser [10]. Do not overfill. The maximum recommended fill level is 8 ml.
- Use medication only on the advice of a doctor, and check the appropriate inhalation duration and quantity for your needs.
- If the required volume of medication is less than 2 ml, top up this quantity to at least 4 ml using an isotonic saline solution. Viscous medicines may also require dilution. Always follow the instructions of your doctor.



Operation

3. Closing the atomiser

- Close the lid of the atomiser [10].

4. Connecting the accessories to the atomiser

- Connect the required accessory part (mouthpiece [13], adult mask [14], child mask [15] or nosepiece [16]) to the atomiser [10].

Please note:

The most effective method of nebulisation is by using the mouthpiece. Nebulisation using a mask is only recommended if it is not possible to use a mouthpiece (e.g. for children who are not able to inhale medication using a mouthpiece).

- Before commencing treatment, pull the atomiser upwards out of its holder [7].
- Start the device using the on/off switch [3].
- A flow of spray from the atomiser indicates that the device is functioning properly.

5. Treatment

- Inhale the nebulised medicine deeply.

Please note:

During treatment, hold the atomiser straight (vertical), otherwise the atomisation does not work and correct function cannot be guaranteed.



Warning

Essential oils, cough medicines, solutions designed for gargling, and drops for application to the skin or for use in steam baths are wholly unsuitable for inhalation using a nebuliser. These substances are often highly viscous and can impair the correct function of the device and hence affect the effectiveness of its application in the long term.

In the case of over sensitivity of the bronchial system, medicines containing essential oils can sometimes cause acute bronchospasm (a sudden, cramp-like tightening of the bronchi accompanied by breathlessness). Always ask your doctor or pharmacist for advice.

Operation

6. End of inhalation

If the output spray is sporadic or if the noise changes during inhalation, you can end the treatment.

- After treatment, turn off the nebuliser at the switch [3] and disconnect it from the mains.
- After use, replace the atomiser [10] in its holder [7].

7. Clean the device

For information about this, see “Cleaning your equipment” section on page 12.

Changing the filter

Check the filter regularly (e.g. after every tenth use).

Replace the used filter if it is very dirty or blocked, but at the latest after 30 days.

If the filter has become wet, it must also be replaced with a new one.

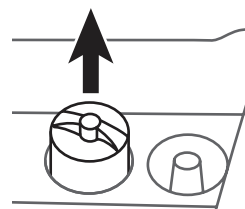
Warning

- Do not try to clean and re-use the used filter.
- Only use original filters supplied by the manufacturer. Failure to do so will result in your nebuliser becoming damaged and effective therapy can no longer be guaranteed.
- Never operate the device without a filter.

To replace the filter, proceed as follows:

Warning

- First switch off the device and unplug it.
- Allow the device to cool down.



- Remove filter cap [5] by lifting upwards.

Please note:

If the filter remains in the device when the cap is removed, remove the filter from the device using tweezers.

- Replace the filter cap [5] containing the new filter.
- Check that the filter cap is firmly in place.
- Additional filters can be purchased from www.betterlife.co.uk.

Cleaning your equipment

Atomiser and accessories

Warning

Observe the following hygiene instructions in order to avoid any health risks.

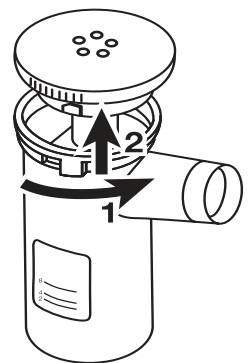
- The atomiser [10] and accessories are intended for multiple use. Please note that cleaning requirements differ according to the different accessories and their usage.

Notes:

- The atomiser and accessories must not be mechanically cleaned with brushes or similar as this can cause irreparable damage and may impair the use of the product and its treatment.
- For additional requirements regarding necessary hygienic preparations (hand washing, handling of medicines or inhalation solutions) in high-risk groups (e.g. cystic fibrosis patients), contact your doctor.
- Ensure that all parts are properly dried following cleaning and disinfection. Residual moisture or water droplets can result in an increased risk of bacterial growth.

Preparation

- Directly following each treatment, all parts of the atomiser [10] and any accessories used must be cleaned and free of medicine residues and contamination.
- To do this, dismantle the atomiser [10] into its individual parts.
- Remove the mouthpiece [13] from the atomiser.
- Dismantle the atomiser by turning the atomiser insert [11] anticlockwise against the medication container [12] and pull upwards.
- To reassemble repeat in reverse order.



Cleaning

Important

Before you clean the device, always switch off, unplug and let it cool off.

The atomiser, atomiser insert, medicine container, mouthpiece and nosepiece must be cleaned with hot water only. The mask and air hose should only be cleaned using warm, soapy water and allowed to dry naturally and thoroughly. Do not use hot water on the mask and air hose.

Cleaning your equipment

Carefully dry all other components using a dry, lint free cloth. Once all components are fully dry, reassemble the atomiser and place the components in a dry, sealed container.

When cleaning, ensure that all residues are removed. Never use any cleaning substances that may be poisonous when in contact with the skin or mucous membranes, or when swallowed or inhaled.

The device

Cleaning

Clean the nebuliser casing using a damp, lint free cloth. Do not use abrasive detergents and never immerse the device in water.

! Important

- Ensure that no water penetrates inside the device.
- Do not put the device or accessories in a dishwasher.
- Do not touch the device with wet hands while it is plugged in; do not allow any water to be sprayed onto the device. The device must be operated only when it is completely dry.
- Do not spray any liquids into the ventilation slots. Any liquid that penetrates into the device can damage the electrical parts or other components and impair the function of the device.

Condensation, care of the hose

Depending on the environmental conditions, condensation may collect in the hose. To prevent against bacterial growth and to ensure effective therapeutic use, this moisture must always be removed. To remove moisture from the hose, proceed as follows:

- Remove the hose [9] from the atomiser [10].
- Leave the hose plugged into the hose connector [6].
- Run the device until all the moisture has been displaced by the flow of air.
- In the event of significant contamination, replace the hose.

Disinfection

With boiling water

After each use, the **atomiser** and **accessories** should be taken apart and placed in boiling water for at least 10 minutes. Do not let the accessories touch the base of the pan if boiling on the hob.

! Important

The masks and air hose must NOT be placed in hot water.

Cleaning your equipment

Please note:

Ensure that all parts are completely dried after cleaning, otherwise the risk of bacterial growth is increased.

With vinegar/water solution

We recommend that after each use you disinfect the equipment . To disinfect use a vinegar/water solution using a $\frac{1}{4}$ vinegar to $\frac{3}{4}$ distilled water.

Follow the steps listed below carefully in order to disinfect your **atomiser** and the **accessories**.

First, clean the **atomiser** and **accessories** as described in the “Cleaning” section.

- Make sure that the volume is sufficient to fully submerge the parts, such as the atomiser, mask and mouthpiece, in the solution.
- Leave the parts in the vinegar solution for 30 minutes.
- Rinse the atomiser and the individual parts and allow to fully dry naturally.

Drying

- Place the individual components on a dry, clean and absorbent surface and allow to dry completely (for at least 4 hours).

Material resistance

- As with all plastic components, frequent use and cleaning of the atomiser and the accessories can lead to a certain amount of wear. Over time, this can alter the aerosol properties and may eventually affect the efficiency of therapy. We therefore recommend that you replace the atomiser and accessories once a year. This can be purchased from www.betterlife.co.uk.
- Only use mild cleaning or disinfectant agents in the quantities recommended in this user manual (i.e $\frac{1}{4}$ vinegar to $\frac{3}{4}$ distilled water solution).

Storage

- Do not store the device in a damp atmosphere (e.g. in the bathroom) or transport it together with damp objects.
- Store and transport the device away from direct sunlight.
- The accessories can be safely stored in the accessories compartment [4]. Store the device in a dry place, if possible in its original packaging.

Disposal

In the interest of environmental protection, do not dispose of the device in household waste.

Please dispose of this device in accordance with the directive WEEE (Waste Electrical and Electronic Equipment). If you have any queries, please refer to the local authorities responsible for waste disposal.



Troubleshooting

Problem/question	Possible cause and solution
The atomiser produces little or no aerosol.	Too much or too little medicine in the atomiser. Minimum: 0.5 ml, Maximum: 8 ml.
	Check that the nozzles are not blocked. If necessary, clean the nozzle (e.g. by rinsing). Use the atomiser again. CAUTION: Clear nozzle holes from any blockages.
	The atomiser is not held in an upright position.
	The medicine solution is unsuitable for nebulising (e.g. too thick). The medicine solution should be specified by your doctor.
Output is too low.	Hose kinked, filter blocked, too much inhalation solution.
Which medicines are suitable for inhalation?	Consult your doctor. Essentially all medicines that are suitable and approved for device based inhalation can be inhaled.
Some inhalation solution remains in the atomiser.	This is normal and occurs for technical reasons. Stop inhalation if you hear a notable difference in the noise of the atomiser.

Troubleshooting

Problem/question	Possible cause and solution
What special steps should be taken for children?	When using on a child, the mask should cover the mouth and nose. Nebulisation next to a sleeping person is not suitable because insufficient medicine reaches the lungs. Note: Children should only use the device with help and under supervision of an adult. Never leave a child alone with the device. DO NOT USE ON BABIES.
Inhalation with the mask takes longer.	This is because less medicine is inhaled per breath through the mask holes than using the mouthpiece. The aerosol is mixed with ambient air through the holes in the mask.
Why do I need to replace the atomiser at regular intervals?	There are two reasons for this: <ul style="list-style-type: none"> • To guarantee a therapeutically effective particle spectrum, the nozzle holes should not exceed a certain diameter. Due to the thermal and mechanical stresses, the plastic is subjected to a certain amount of wear. The atomiser [10] is particularly sensitive. This can also cause changes to the droplet composition of the aerosol, which has a direct impact on the effectiveness of the treatment. • You are also recommended to replace the atomiser on a regular basis for hygiene reasons.
Does each person need their own atomiser?	Yes, this is absolutely necessary for hygiene reasons.

Technical specifications

Type:	IH21
Dimensions:	(WxHxD) 300 x 180 x 100 mm
Weight:	1.9 kg
Operating pressure approx.:	1.2 bar
Atomiser fill volume max.:	8 ml
Medicine flow:	> 0.2 ml/min.
Sound pressure:	< 60 dBA (acc. to DIN EN 13544-1 section 26)
Mains connection:	240 V ~, 50 Hz; 180 VA
Housing material:	ABS
Operating conditions:	Temperature: +10 °C – +40 °C Relative humidity: 10% – 95%
Storage and transport conditions:	Temperature: -20 °C – +70 °C Relative humidity: 10% – 95% Atmospheric pressure: 500 – 1060 hPa
Expected life of product:	2 years under normal usage (excluding consumables such as atomiser, mask and filters etc.)
MMAD	3.8 µm

Note:

Design and specifications are subject to change without notice.

Accessories can be purchased from www.betterlife.co.uk

Designation	Material	REF
Nebulisation stopper	PP	162.819
Year pack (contains Mouthpiece, Adult mask, Child mask, Atomiser, air hose, Filter, Nosepiece)	PP/ PVC	601.03

Technical specifications

Please note:

If the device is used outside of the specifications, proper function is no longer guaranteed.

We reserve the right to make technical changes to improve and further develop this device.

This device and its accessories comply with European standards EN60601-1 and EN60601-1-2, as well as EN13544-1, and is subject to special safety measures in terms of electromagnetic tolerance. Note that portable and mobile RF communication equipment can affect this unit. The device conforms to the requirements of the European Medical Device Directive 93/42/EC.

If you have any technical queries please contact Betterlife customer services team on 01772 644 288, and select option 2.

Electromagnetic compatibility

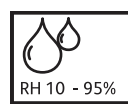
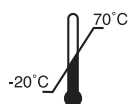
- The device complies with current specifications with regard to electromagnetic compatibility and is suitable for use in all premises, including those designated for private residential purposes. The radio frequency emissions of the device are extremely low and in all probability do not cause any interference with other devices in the proximity.
- It is recommended that you do not place the device on top of or close to other devices. Should you notice any interference with other electrical devices, move the device or connect it to a different socket.
- Radio equipment may affect the operation of this device.

Warranty

This product is guaranteed for a period of one year from the date of purchase against mechanical and electrical manufacturing defects. There are no user serviceable parts inside the instrument. Any attempted repair by unauthorised persons invalidates the warranty. This does not affect your statutory rights.



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Germany



Explanation of symbols

The following symbols are used on the packaging, on the rating label located on the base of the device and on the accessories.



Complies with European Directive 93/42/EEC (Medical Device Directive)



Disposal in accordance with Directive (WEEE)



Warning improper use could lead to death or serious injury



The name and the address of the manufacturer



Date of manufacture



Batch code



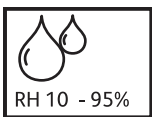
Keep dry



Follow instructions for use



Device in protection class 2



Relative humidity

