MIZU baby

Manuale Istruzioni

Instruction Manual

NOMU MESH

Table of Contents

1. Important safety instructions

⚠ WARNING:

- Use this appliance under the guidance of a professional doctor.-For the type, dose, and regimen of the medicine, be sure to follow the instructions of a doctor.
- Children or disable patients should be assisted by adults or medical personnel when using this appliance.
- Keep this appliance away from the reach of children.
- Do not use this appliance under flammable gases.
- Use this appliance only for its intended use as described in this manual, and do not use any attachments or accessories not recommended by the manufacturer.
- Cut off the power when the appliance is abnormal.
- No modification of this equipment is allowed.
- This equipment is not suitable for high suspended liquids or viscous liquids.
- This equipment is intended for use only in conscious patients.
- During using this appliance, if any irregularity or discomfort is observed, please stop use it, and seek medical attention immediately.
- This appliance is not intended for life support.
- Do not use this appliance near high frequency, microwave ovens and mobile phones.
- Prior to initial operation,or if the appliance not used for a long time,please proceed with cleaning and sterilize procedure described in the user manual.

⚠ PRECAUTIONS:

- Use and store the appliance only in the operating and storage environments specified in this manual.
- Do not use this appliance if the medication cup without any medicine.

- Different patients should use individual clean medication cups and mouth pieces to avoid cross infection.
- Do not pour water inside the device or the connection between the power adapter and the host.
- Discard the waste batteries according to local law.
- The main unit, medication cup, and nebulizer accessories should not be placed in boiling water for disinfection, and should not be placed in a microwave oven for drying.
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⚠ CONTRAINDICATIONS:

- The patients with serious lack of oxygen or respiratory failure are prohibited to use this appliance.

2. Instruction

2.1 Working principle

This product is mainly composed of piezoelectric components. The piezoelectric components convert electrical energy into mechanical energy and generate ultrasonic vibration. The shock wave squeezes the liquid in the medicine cup, so that the liquid medicine passes through the micropores on the atomizing sheet to spray the liquid medicine. It is sprayed out as mist and used by inhalers.

2.2 Intended for use

Atomize the medicine, for treatment.

The product is used for the conscious patients, applys to all children and adults, can be used in hospital (not applicable in ICU) and for family.

2.3 Features

- Microporous design, the atomized particle size(MMAD) is 2.3±25% um, more effective absorption.
- Piezoelectric components, low noise design, measured volume ≤ 50dB (A).
- Compact and lightweight, easy to carry.
- One-button design, easy to operate.
- Independent components, easy for cleaning, the medication cup is washable.
- Fast nebulization speed, nebulization rate >0.2ml/min.
- Less drug residua, the mount of residua≤0.5ml, more economical.
- Multiple power supply methods, suitable for home use and ideal for travel.
- NOMU is powered by Alkaline battery and power adaptor.
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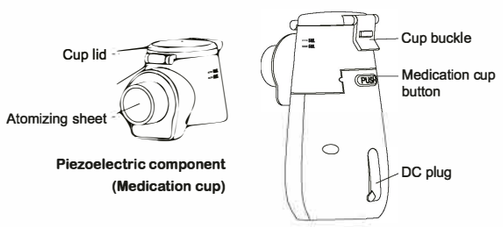
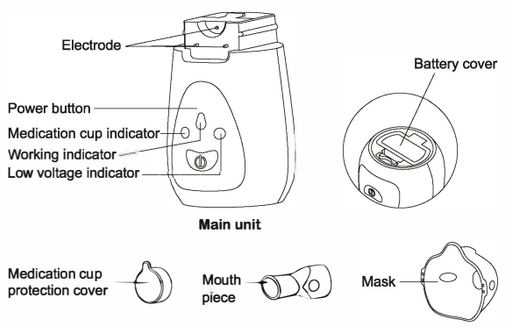
3. Illustration of product

This product consists of the main unit, the medication cup (piezoelectric component), the mask, the mouth piece, and the power adapter (optional).



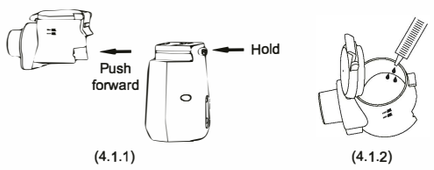


4. Instructions for use

Make sure the nebulizer components are clean, hygienic and dry before use.

4.1 Add liquid medicine

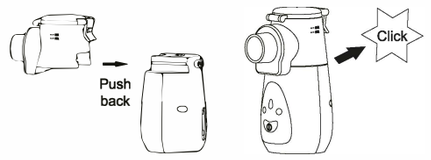
4.1.1 Push the medication cup to the front of the main unit after pressing the back cup button on the main unit.



4.1.2 Open the medication cup cover and pour the medicine into the medication cup and close the cover completely.

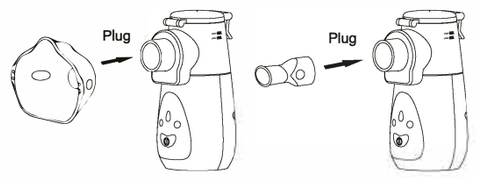
- Add at least 1 ml of liquid medicine, and do not add medication over the indicated line marked on medication cup.
- Remove the medication cup from the main unit when adding medicine.
- Fasten the medication cup lid to prevent the liquid from leaking out.
- Do not shake the nebulizer violently when the medication cup is filled with liquid medicine.

4.1.3 Put the cup back into the main unit and confirm that it is in place until you hear a click.



- Please keep the electrode on the main unit and the medication cup clean, no dirt or liquid residue, and confirm that the medication cup is assembled in place. Otherwise, the electrode may be abnormally turned on and the nebulizer may can not work properly.

4.2 Install mask or mouth piece



- The mouthpiece, adult mask,and child mask provided are disposable parts.Please use the inhalation device according to the doctor's instructions. Check if it is clean, hygienic and dry before first use.

- Apart from the accessories and parts for sold separately , use masks and mouth piece recommended by the manufacturer only.

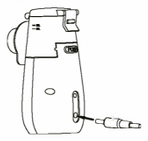
4.3 Connect power supply

NOMU mesh uses a battery and a power adapter (optional) as a power supply.

4.3.1 Connect the power adapter

Open the DC socket protection plug on the back of the main unit, insert the power adapter DC plug into the socket hole, and then plug the adapter into the electrical outlet.

When treatment is finished, switch off the unit and unplug it from the electrical outlet, close the DC socket protection plug.Do not connect the power supply for a long time.



- It is recommended to use the specified power adapter for this product.

4.3.2 Install battery

Open the battery cover and put in 2 AA size alkaline batteries in correct position, then close battery cover.

- When the low voltage indicator (yellow light) flashes, the battery is about to run out. need to replace the battery soon.
- Do not mix old and new batteries or different types of batteries.
- It is recommended to remove batteries when use a power adaptor.
- Remove batteries if the unit is not in use for long periods.

DISPOSAL

The device (including its removable parts and accessories) must not be disposed of together with municipal waste at the end of its life, but in compliance with European Directive 2002/96/EC. Since it must be handled separately from household waste, either carry it to a separately collected waste disposal centre for electrical and electronic appliances or give it back to the retailer on purchasing a new device with the same purpose. Any infringement will be severely prosecuted. Specifications and designs are based on the latest information available at the time of printing and subject to change without notice.

⚠ WARNING:

This product contains a lithium battery, do not put the product into fire or immerse in the liquid.

4.4 Operating nebulizer

4.4.1

Press the power button once to start the device, with the green work indicator on.

4.4.2 Nebulizaton rate adjustment

a) Press the power button once, the device works at a faster nebulization rate, with bright green work indicator.

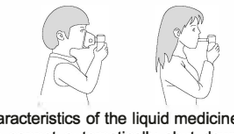
b) During the device working period, if the user presses the power button for a second time, the device works at a lower nebulization rate, and the green work indicator turns dim.

4.4.3 Auto cleaning mode

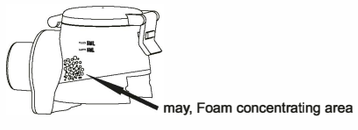
If the user keeps pressing the power button for 3s, the auto cleaning mode is a activated.

With the green work indicator flashing, the device works for 2 mintues and then automatically shut down.

- If there is no medicine or there is very poorly conductive liquid (for example,distilled water) inside the medication cup, medication cup indicator (blue light) will flash, and then device will auto-off.
- After the power is turned on, the nebulizer will undergo a short start-up period (within about 2 seconds) and then spray normally.
- During the spray process, there may be a noise caused by high frequency vibration. Please shake the nebulizer gently to reduce the probability of sound.
- Hold the nebulizer smoothly, relax and start breathing.



- Since the characteristics of the liquid medicine are different, when the nebulizer cannot automatically shut down after some of the liquid medicine is exhausted, please press the power button to shut down the appliance immediately to avoid damage to the mesh.
- When the liquid is about to be exhausted, it is recommended to tilt the front side of the nebulizer (on the side of the spray direction) slightly toward patient, which is good for contacting the remaining liquid to the atomized piece for nebulization.
- Do not cover the vents on the mask and mouth piece with your hands or other objects during the atomization process.
- During using this appliance, if any irregularity or discomfort is observed, please stop use it, and seek medical attention immediately.
- During the atomization process of some liquids, a large amount of foam will be concentrated in the vicinity of mesh in the medication cup, which may easily cause the spray to be interrupted. In this case, turn off the nebulizer immediately, shake the nebulizer slightly, and then restart.



4.5 Power off

4.5.1 Automatically shutoff after 20 minutes continuous operation.

4.5.2 After the liquid medicine is exhausted, the nebulizer will emit a high-frequency sound, and the medication cup indicator (blue light) will flash and nebulizer shut down automatically.

4.5.3 During use, if you need to stop using it, you can press the power button to turn off the device and the work indicator (green light) goes off.

4.5.4 When using an external power adapter, unplug the power cord after turning off the power.

5. Clean, sterilize and store

5.1 Clean

5.1.1 Cleaning residual liquid medicine

a) Open medication cap (cup) and discard all remaining medicine.

b) Pour in some clean water and close the medication cup completely. Gently shake the cup to dissolve the residue in purified water.

c) Pour off the liquid and refill with some clean water.

d) Press and hold the power button until the work indicator (green light) lights up and the nebulizer starts to spray. It will spray for 3 minutes to clean the residual liquid on the mesh and then shutoff automatically . If there is water remains, just pour off it.

- Ensure medicine be cleaned completely after each using, otherwise, it could cause mesh blocked.
- After entering the cleaning mode, if the nebulizer is running out of water and there is no spray, please turn it off immediately.
- If the residual liquid has not been removed, it can be washed with warm water or repeatedly.
- Clean water includes distilled water, pure drinking water, and the like.

5.1.2 Wash

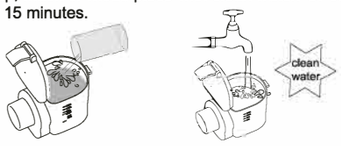
材质：105双铜 折页 单色

尺寸：360*375mm(单页90*125mm)

正面

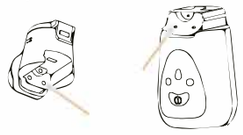
a) Remove the cup and mask or mouthpiece.

b) Rinse the cup, mask or mouthpiece with clean water. Or soak in clean water for 15 minutes.



c) Main unit:clean the surface of main unit of appliance with a piece of wet fine cotton fabrics , and dry it with a dry cotton fabrics.

d) Clean the electrodes on the main unit and the cup assembly to ensure that the cup is securely attached to the main unit and sprayed normally.



e) Wipe the cleaned parts with clean gauze and dry thoroughly.

f) Put on the protective cover on medication cup, install it on the main unit, and store in a clean place.

- Do not wipe the nebulizer with volatile corrosive liquids such as benzene, benzine or thinner.
- Before cleaning the parts, please remove the battery. If you use the power adapter or lithium battery, unplug the power adapter from the socket after turning off the power.
- To prevent residual paper dust or cloth from entering the cup and clogging the atomizer, do not use cotton paper or easy-to-hair cloth to wipe the cup assembly.
- Do not clean the components of the product in the dishwasher, and do not dry the product components in the microwave oven.

5.2 Sterilize

Please disinfect the mouthpiece and mask after each use. If the parts are seriously polluted, please replace the parts in time. It is recommended to have the following two disinfection methods:

a) Alcohol disinfection: disinfect the nozzle and mask with 75% medical alcohol.

b) After disinfection, rinse thoroughly with clean water to avoid residual disinfectant.

- Do not disinfect with a sub-chlorinated disinfectant. Such disinfectant may cause damage to components.
- If you use disinfectant, accidentally get into the eyes or stick to the skin. Rinse with clean water as soon as possible or go to a nearby medical facility.

5.3 Storage

After each use and cleaning and disinfection, confirm that the body and the cup are dry and store them in the box. Place the box in a dry and cool place and keep it away from the reach of children.

6. Trouble shooting

Failure	*Cause of failure*	*Countermeasures*
Can not power on	Battery installed incorrectly	Install the battery correctly as user manual indicated.
	Low battery	Replace the battery. Charge the lithium battery and reboot after completed charging.
	The power adapter and the nebulizer are not properly connected	Reconnect and then reboot.
Power on, but no operation	The electrode on the main unit or the cup is dirty	Clean the electrode and reboot.

Failure	*Cause of failure*	*Countermeasures*
Power on, but no operation	Low voltage indicator (yellow light) flashes, low battery	Replace the battery and reboot. Charge the lithium battery and reboot after completed charging.
	Mesh is dirty or blocked	Clean the medication cup according to instructions. Replace the medication cup if the fault is not excluded after cleaning.
	Medication cup is not assembled in place	Reassemble medication cup, and reboot.
	The medication cup is filled with liquid medicine for a long time to form a water film	Shark medication cup, and reboot.
Power on, work indicator flash for 1 second, then medication cup indicator flash(blue light), and auto-off	No medicine or liquid is exhausted	Add medicine.
	Very poorly conductive liquid inside medication cup(such as distilled water)	Add medicine or saline.
	Medication cup is not assembled in place	Reassemble medication cup, and reboot.
	The electrode on the main unit or the cup is dirty	Clean the electrode and reboot.
	The liquid has not been in contact with the mesh for more than about 8 seconds	Tilt the front of the nebulizer to the user to make the liquid contact the mesh.

Failure	*Cause of failure*	*Countermeasures*
Auto-off during use	Liquid is exhausted	Add medicine.
	The liquid medicine is not in full contact with mesh	Tilt the front of the nebulizer to the user to make the liquid contact the mesh.
	There is a liquid residue on the mesh, and a very weak conductive liquid (such as distilled water) is placed in the medicine cup.	Add medicine or saline.
Liquid is exhausted, but nebulizer can not auto-off	Chemical properties of some liquid medicine are different and the conductivity is too strong	Manually shutdown the device.
	Some liquids may produce some foam in the medication cup	Clean up the foam and reboot.
Liquid leak	Too much medicine in the medication cup,exceeding the maximum volume	Pour out excess liquid and restart.
	During use, the medication cup is shaking violently	Hold the nebulizer steadily during use.
	The medication cup is damaged or the sealed silicone ring has aged	Replace a new medication cup.

If the nebulizer still does not work properly after taking the above measures, we recommend that you contact the dealer for servicing.

7. Definition of symbols

	Read instruction manual before use
	Type BF applied part
	Manufacturer information
EC REP	Authorized representative in the European Community
IP22	IP code of the device: this device's grade of against ingress of solid foreign objects -- ≧ 12.5mm diameter (and the against access to hazardous parts with finger); the grade of waterproof is dripping (15° tilted)
CE 1693	Complies with the European Medical Device Directive (93/42/EEC and amended Directive 2007/47/EC. Notified Body is SGS United Kingdom Ltd
SN	Serial number
LOT	Batch code
	Follow operating instructions
	Disposal in accordance with Directive 2002/96/EC (WEEE)

RoHS COMPLIANT	Complies with RoHS directive 2011/65/EU of the European parliament and of the council of 8 June 2011
	Fragile, handle with care
	Keep dry
	This way up
	Stacking layer
	Single use only

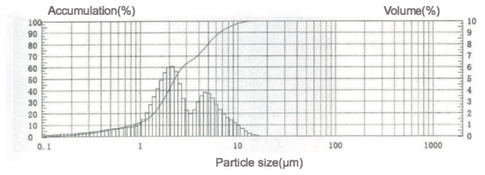
8. Specifications

Device name	Portable(Ultrasonic) nebulizer	
Model		
Power supply	1.5V*2AA Size Alkaline battery or d.c. 5V/1A	
Power adaptor	Input: AC100-240V,50/60HZ,0.5A; Output: d.c 5V/1A; input:AC100-240V,50/60HZ,0.5A; output: d.c 5V/1A; (optional)	
Power consumption	< 2W	
Standby current consumption	< 0.1 mA	
Nebulization rate	>0.2mL/min	
Particle size	MMAD 2.3um±25%,60% above with 0.5-5um	
Amount of residue	≤0.5ml	

Noise	≤50dB(A)	
Mesh oscillation frequency	110 ± 10KHz	
Battery life	Continuous operation>1.5 hour; running about 20 minutes per day and can be used for about 7 days(brand new1.5V X2,AA,Alkaline)	
Charging time / indication (NBM-5B only)	Charging time is about 3 hours ,Work indicator light (Green light) flash when charging; Work indicator light (green light) steady on after charging is completed	
Low battery indication	<2.0±0.2V,Low battery indicator light (yellow light) flash	
Automatic shutdown voltage	<1.5±0.2V	
Low water level indication	Medication cup indicator light (blue light) flash	
Medication cup volume	About 8ml	
Time AUTO-OFF	About 20 minutes	
Operation environment	Temperature range:10~40°C Humidity range:10%-95%RH(Non-condensing) Atmospheric pressure range:860-1060hPa	

Storage/Transportation environment	Temperature range:-20~70°C Humidity range:10%-95%RH(Non-condensing) Atmospheric pressure range:500-1060hPa
Type of protection against electric shock	Internal power supply,Type BF applied part
Grade of waterproof	IP22
Product life	1 years(excluding Vulnerable and consumable parts)
Dimensions	Approx 50(L)*66(W)*100(H)mm
Weight	Approx 85g(without battery)

The equivalent volume particle size distribution curve of the atomized particles is as follows:



Test conditions: ambient temperature 25 ±°C, relative humidity ≤ 85%, using pure water test. (Test data may vary depending on test conditions and changes in liquid medicine)

9. EMC Information

9.1 A statement of the environments for which the**NOM**U is suitable. Relevant exclusions, as determined by RISK ANALYSIS, shall also be listed, e.g. hospitals except for near active HF SURGICAL EQUIPMENT and the RF shielded room of an ME SYSTEM for magnetic resonance imaging, where the intensity of EM DISTURBANCES is high.

9.2 The performance of the **NOM**U that was determined to be ESSENTIAL PERFORMANCE and a description of what the OPERATOR can expect if the ESSENTIAL PERFORMANCE is lost or degraded due to EM DISTURBANCES (the defined term "ESSENTIAL PERFORMANCE" need not be used.

9.3 A list of all cables and maximum lengths of cables (if applicable), transducers and other ACCESSORIES that are replaceable by the RESPONSIBLE ORGANIZATION and that are likely to affect compliance of the ME EQUIPMENT or ME SYSTEM with the requirements of Clause 7 (EMISSIONS) and Clause 8 (IMMUNITY). ACCESSORIES may be specified either generically (e.g. shielded cable, load impedance) or specifically (e.g. by MANUFACTURER and MODEL OR TYPE REFERENCE).

WARNING:

Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this the device could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation

Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the device, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

NOTE

The EMISSIONS characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.

Guidance and manufacturer´s declaration – electromagnetic emission – for all EQUIPMENT AND SYSTEMS

Guidance and manufacturer´s declaration – electromagnetic emission		
The device is intended for use in the electromagnetic environment specified below. The customer or the user of device should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The device uses RF energy only for its internal function. There for, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The device suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity – for all EQUIPMENT and SYSTEMS

Guidance and manufacturer´s declaration – electromagnetic immunity			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.			
Immunity test	**IEC 60601 testlevel**	**Compliance level**	**Electromagnetic environment - guidance**

Electrostatic discharge (ESD) IEC 61000-4-2	±8kV contact ±2kV, ±4kV, ±8kV, ±15kV air	±8kV contact ±2kV, ±4kV, ±8kV, ±15kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrostatic transient / burst IEC 61000-4-4	±2kV for power supply lines ±1kV for input/output lines	±2kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1kV differential mode ±2kV common mode	±1kV differential mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips,short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0% UT;0,5 cycle g) At 0°,45°,90°,135°,180°, 225°, 270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0° 0 % UT; 250/300 cycle	0% UT; 0,5 cycle g) At 0°,45°,90°,135°,180°, 225°,270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0° 0 % UT; 250/300 cycle	Mains power quality should be that of a typical commercial or hospital environment. If the user of the device requires continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30A/m	30A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE	UT is the a. c. mains voltage prior to application of the test level.		

10. After sales service information

Packing list		
Item	Component	Qty
1	Main unit	1 unit
2	Medication cup	1 unit
3	User manual(incl warranty card)	1 copy
4	USB Cable	1 piece
5	Adult mask	1 piece
6	Child mask	1 piece
7	Mouth piece	1 piece
Remarks: Adult mask, child mask, and mouth piece are recommended for one-time use; please contact your local dealer if you need to purchase.		

Warranty - Terms and Conditions

The product is guaranteed for 24 months, starting from the time of purchase shown in the proof of purchase and covers defects that can be traced back to material or manufacturing errors found at the time of purchase. All parts subject to wear and tear for normal use and moving parts (batteries, blades, cables, power supplies, accumulators, etc.) are excluded from the warranty. The warranty is not valid if cosmetic damage is found due to incorrect use or failure to consult the user manual; if the product has been modified or tampered with or due to poor maintenance of components or accessories The following are excluded from the 24-month warranty: - Costs for replacement or repair of parts subject to wear or costs related to normal maintenance of the product - Damage resulting from incorrect installation or use not in accordance with the instructions for use inside the product - damage or defects caused by natural disasters events accidental - Unauthorized maintenance or repair operations - Damage deriving from power supply problems (where applicable) - Use of parts or components not supplied by the Manufacturer - Unauthorized modifications Shipping damage (other than the original shipment) - Failure to perform maintenance as indicated in the manual.
For more information visit the website: Smartservice40.it

CONTACT INFORMATION

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Email: info@simzo.net

EC REP Shanghai International Holding Corp.GmbH(Europe) Eiffestrasse 80,20537 Hamburg Germany

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