



Oxynergy Atomizer ®

Description and Operating Instructions

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Oxynergy Atomizer ®

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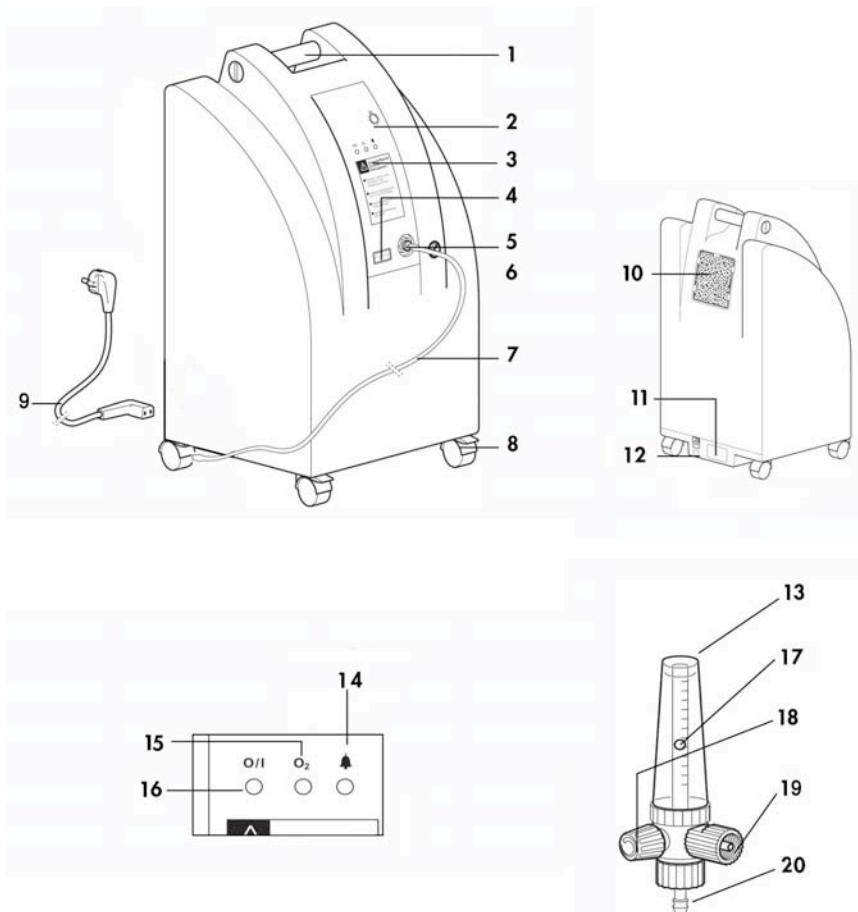
Application System

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Oxynergy Atomizer ®

1. Legend

1. Handle for lifting or moving
2. On/Off knob
3. Warning Notice
4. Operating hours meter
5. Oxygen Outlet
6. Connecting nipple with union nut (fitted)
7. Connecting Tube
8. Castors with brake
9. Power cord
10. Coarse dust filter
11. Power card socket
12. Fuse holder
13. Flow meter (optional)
14. Fault indicator
15. Oxygen concentration status indicator (yellow)
16. Power indicator (green)
17. Ball, indicates flow
18. Flow control knob
19. Connection Oxynergy Atomizer ®
20. Connection for tube



2. Description

2.1 Purpose

Low blood circulation and high energy-demand to support regeneration of skin are typical characteristics of damaged skin. Clinical experience has shown that topical oxygen treatment promotes collagen synthesis, improving skin microcirculation and energy supply. Many degenerative skin processes e.g. the aging process are influenced or caused by an oxygen deficiency. The outer layer of the skin consists of constantly scaled off horn cells. They are “produced” by the stratum germinativum located beneath. Normally functioning skin replaces basal cells in a 4 weeks cycle. Due to the need for constant renewing process the stratum germinativum is greatly depending on a sufficient supply with oxygen through the papilla capillaries. The innovative Oxynergy treatment technology is especially designed to apply specific concentrates with highest precision and efficiency in order to support the diffusive oxygen supply and to provide an additional intercellular saturation of oxygen.

The application system maximizes the physical surface of a fluid by transforming it into a specific spray state. The particles of the spray produced by a handheld application unit is within an 0,001 mm spectrum of size. The concentration of the oxygen is up to 96 %, the flow can be easily regulated. Throughout all treatment procedures the application system does not have any direct contact to the skin.

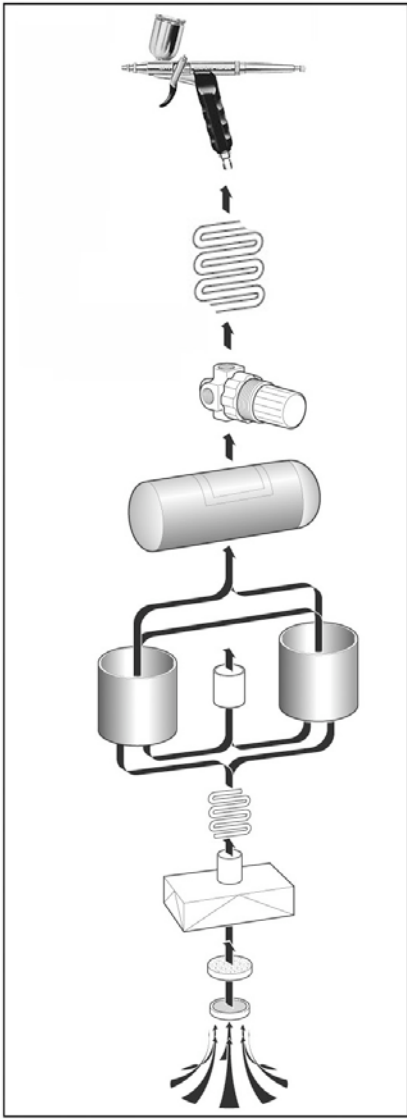
The Oxynergy Atomizer ® is designed to increase the oxygen content (O₂), in the pressured air that we use as vector to bring cosmetic active ingredients into the skin.

The compressed air is mixed with the product in the application system and sprayed on the skin. This equipment is reserved for dermatology application. The pure oxygen must not be breathing due to the high air pressure modified to 0.95 Bar.

2.2 Function

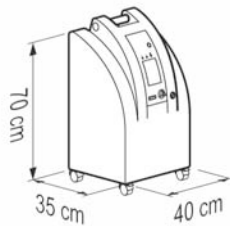
This section describes the main technical aspects of how the Oxynergy Atomizer ® works.

- An electrically powered compressor draws in ambient air through a dust filter and fine-mesh filter and forces the slightly compressed air into containers fitted with molecular filters.
- The molecular filters have the property of absorbing the nitrogen contained in the air.
- Oxygen-enriched air flows from the containers into the oxygen tank. It then passes through a pressure regulator to the oxygen outlet of the Oxynergy Atomizer ®.
- The desired volume (flow) of oxygen can be set if you are using a flow meter with the Flow control knob (18). You can read off the Flow rate at the top of the flow meter ball (17). You can also control the flow at the level of the applicator system by playing with the Flow controller.
- Each time the device is switched on, the control system performs a self-test of the entire O₂ concentrator. This test lasts approximately a minute. If, during this self test, a fault is found in the O₂ concentrator which leads to O₂ concentration dropping below 82%, yellow status indicator (15) is switched on.
- After the self-test, the Oxynergy Atomizer ® resumes normal mode. The process control system continuously monitors the electrical and the pneumatic circuits of the oxygen concentrator.



3. Safety Information

For your own and your patient safety, observe the following points:



- Read these operating instructions carefully. They are part of the Oxynergy Atomizer ® and must be kept available at all times.
- Also be sure to observe the operating instructions for all accessories.
- Use the device for the designated purpose ONLY (skin application of pure oxygen).
- Your device oxygen Atomizer enriches the ambient air with oxygen. During therapy with the Oxynergy Atomizer ® your clothing may come into contact with oxygen enriched air. This makes the clothing more flammable. For this reason smoking, naked lights (candles) or open fires (fireplace) are prohibited in the immediate vicinity.

This also applies after the therapy until the increased oxygen concentration in the clothes has returned to normal.

Please keep in mind: It is for your own and patient safety!

- The mains voltage of the device must correspond to your mains voltage.
- During operation, your Oxynergy Atomizer ® draws ambient air. For this reason the devices must not be covered up. Make sure that the air intake slits are always kept free.
- Make sure that the air drawn in does not contain any smoke, vehicle exhaust gases or impurities.
- The air drawn in by the concentrator is also used for cooling. Do not place the device in front of a heater or direct sunlight.
- Do not place the device in damp rooms (e.g bathroom) or on the balcony. Persistent absorption of moisture damages the molecular filters and can lead to failure of the Oxynergy Atomizer ®.
- Remember to clean the coarse dust filter (10) once a week.
- Follow the section entitled "cleaning and disinfection" to avoid infection or contamination with bacteria.
- If red fault indicator (14) comes on and an acoustic alarm sounds at the same time, switch off the Oxynergy Atomizer ® and contact your authorised dealer.
- If yellow status indicator (15) comes on, together with green power indicator (16) you can continue to use the device. The indicator gives early warning of an internal fault in the device which should be remedied by authorized dealer.

- Inappropriate use can lead to side effects. It is therefore advisable to take all precaution and follow the instruction guide.
- Do not use mobile telephones in the immediate vicinity of the Oxynergy Atomizer ®.
- In view of the fire risk, do not use any other products than Oxynergy. All products are free of flammable ingredients. Do not use any lubricants (grease, oil, alcohol)
- After long periods of non-use (several months), have the oxygen concentration checked by an authorized dealer.
- Only products recommended in these operating instructions should be used with the Oxynergy Atomizer ®. Proper functioning cannot be guaranteed if used with other products.
- Employing third-party components instead of the accessories (flow meter, application system...) or spare parts recommended in the operating instructions; may have adverse effects on function.



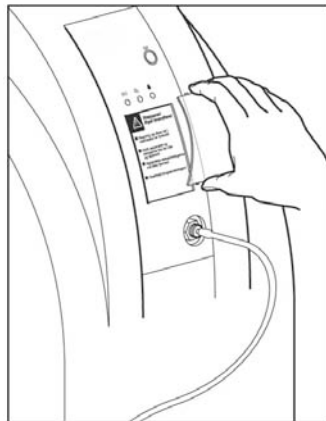
Warning notices on unit

4. Installation

4.1 Setting up device

Fix the enclosed card with warning notices in your own language.
Please observe the following when choosing the site for the device.

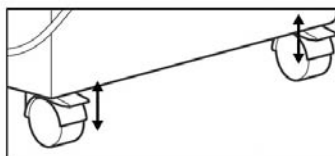
- Choose a well-ventilated position where the Oxynergy Atomizer ® does not cause problems.
 - This site should be somewhere central in the working area so that you can move around as freely as possible with the applicator in hand.
- Place the device in another room if you are disturbed by the noise.
- Your device should stand in a level and dry place. Do not put the device in a damp room.
- The air drawn in by the concentrator is also used for cooling. Do not place the Oxynergy Atomizer ® in front of a heater or in direct sunlight.
- You are recommended to put it on a smooth floor to, ensure unimpeded air circulation. Avoid placing the device on thick carpets.



Arresting and releasing the castors

The device has a brake on each of the front castors.

- Press the brake lever down with your foot to arrest the castors
- To release the brake, lift the brake lever.



4.2 Connecting to Application system

1. First screw the connecting nipple with the union nut on the lower part of the applicator (Gun or Spray).
2. Connect the plastic tube.
3. Now you can use the power cord to connect the Oxynergy Atomizer ® to a power outlet. Note that it needs mains voltage of 230 V.

5. Operation

5.1 Before switching on

- If the device has been stored in a cold environment (below +10°C) before being switched on, put it in a warm room and wait approximately 30 minutes before switching it on to allow the Oxynergy Atomizer to come to room temperature.
- Connect all components together as described before.
- Fill up the hose of the applicator with the product.

5.2 Switching on and off

1. Switch on the device using On/Off knob (2). A self-test will then run.
 - Red fault indicator (14), yellow status indicator (15) and green power indicator (16) immediately come on briefly.
 - Green power indicator (16) then flashes for the duration of the self-test (approx. 1 minute).
 - During the self-test you will hear the compressor stopping and system pressure being released after approx. 30 seconds (hissing noise). This is an internal leak test taking place. The compressor then starts up again.
 - If the device is functioning perfectly, only green power indicator (16) will still be on after the self-test.
 - Yellow status indicator (15) gives warning fault. You should then have the device checked by your authorized dealer.
 - Red fault indicator (15) indicates a severe fault. The Oxynergy Atomizer ® should be taken out of service.
2. The Oxynergy Atomizer ® is ready to use.
3. After the treatment, switch off the Oxynergy Atomizer ® by pressing On/Off knob (2).
4. !!!! The atomizer must run by cycles of minimum 1 hour. Do not switch off before or the molecular filters could be damaged !!!!

5.3 Indicators

Indicators on the Oxynergy Atomizer ®

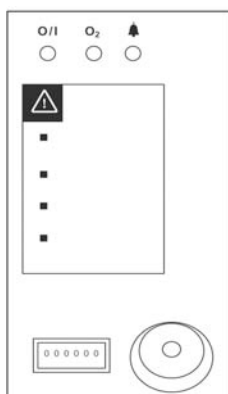
The operating hours meter (4) allows you to keep a check on servicing intervals.

. Green power indicator (16):

- always comes on when the device is ON
- flashes during the self-test after the device is switched ON

. Yellow status indicator (15) of the Oxygen Device; only comes on if a fault is detected during the self-test which might lead to reduced performance of the device. In this case, contact your authorized dealer.

. Red fault indicator (14); this lamp comes on in the event of either a power failure or the device failing. You will simultaneously hear an intermittent alarm (see “troubleshooting”).



5.4 Storing the Oxynergy Atomizer ®

If you will not be using the device for some time, be sure to clean and dry tube system and applicator before storing them.

5.5 Bringing back the Oxynergy Atomizer ® into service

If the Oxynergy has been out of service for over then 6 months, a functional check (see “functional check”) and an oxygen concentration measurement must be performed by an authorized dealer before the device is brought back into service.

5.6 Tips

Oxynergy Atomizer ® is portable equipment for skin application ONLY. It must not be used for any other application and any other kind of products Oxynergy.

6. Cleaning and Disinfecting

. We recommend you to change the plastic connection tube every month.

No water or disinfectant must be used or any other kind of aggressive/corrosive/flammable product must be allowed to enter the air slits or the tubes.

. Keep the place and the power cord (9) clean by wiping with disinfectant.

. Once a week you should clear the dust from the coarse filter (10) at the rear of the Oxynergy Atomizer ®. Remove the filter and drop tap it out. Alternatively you can clean the coarse filter with a vacuum cleaner. Be careful not to push any hard objects into the air slits.

7. Functional Check

1. Switch on the Oxynergy Atomizer ® using On/Off knob (2). A self test will then run.

- Red fault indicator (14), yellow status indicator (15) and green power indicator (16) immediately come on briefly.
- Green power indicator (16) then flashes for the duration of the self-test (approx. 1 minute).
- If the device is functioning perfectly, only green power indicator (16) will still be on after the self-test.
- Yellow status indicator (15) gives warning of a fault. You should then have the device checked by an authorized dealer.
- Red fault indicator (14) indicates a severe fault. The Oxynergy Atomizer ® should be taken out of service.

2. Check that the red minutes counter on the operating time meter (4) moves on every 6 minutes.

3. Check that the screw connections between the elements are firm.

4. Check mains failure alarm. To do this, pull out the mains plug while the Oxynergy Atomizer ® is switched ON. An acoustic signal is heard, and the red fault indicator (14) lights up.

5. Insert the mains plug in the power socket again. The alarm signal should stop, and the device starts again.

6. Switch OFF your Oxynergy Atomizer ® when you no longer need it.

8. Troubleshooting

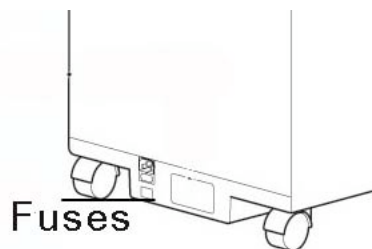
8.1 General

Fault	Cause	Remedy
No sound of motor, power indicator does not light up, mains failure alarm sounds.	Faulty failure	Change fuse (see 8.2)
	No Power	Ensure power supply.
Device running, but intermittent acoustic warnings are heard and red fault indicator flashes	Device running hot, air intake slits blocked.	Clean air intake slits allow device to cool down.
After running for a long special period, device emits intermittent acoustic warnings and red fault indicator flashes, no sound of motor to be noticed.	Compressor not running.	Check whether air intake slits are blocked. Allow device to cool thoroughly. Restart device after a while. If the warning signal sounds again, the device is defective. Consult authorized dealer.
Flow at outlet from device, but not at applicator. No warning from device.	Faulty tube connections. Bend tubes. Faulty seals or leak in screw connections	First check whether flow is indicated at the dosage monitor. Check all tube connections for leaks, and replace seals if necessary.
Yellow status indicator for O ₂ concentrator comes on.	A fault has been found in the O ₂ concentrator which, in the long term, may lead to O ₂ concentration dropping below 82%	Please contact your authorized dealer.

If you cannot rectify a fault immediately, you should contact your authorized dealer or the manufacturer. Send faulty devices to your authorized dealer. Never use Oxynergy Atomizer ® when the red fault indicator is on.

8.2 Changing fuses

At the rear of the Oxynergy Atomizer ® are two fuses of type T 2.5H/250 V



1. First switch off the device, then pull out the mains plug.
2. Squeeze together the tabs on each side of the faulty holder (12) and pull the holder out.
3. Change the faulty fuse. You will find a spare fuse in the fuse holder.
4. Push the holder with the new fuse back into the device.

8.3 Disposal

To ensure proper disposal of the device, consult an authorized waste disposal company. You can find out their address from your environmental officer or municipal cleaning department.

9. Maintenance

Note: Please remember that a final check should be made after every start-up.

We recommend preventive servicing of the device by a trained authorized dealer.

- After 5000 operating hours (see operating hours meter). For safety, check whether the 5000 operating hours has been reached.
- When a year has elapsed since the last service.
- When the device has not been in service for over six months.

Servicing should include:

- Changing the coarse dust and suction filter
- Cleaning the device
- Checking the device equipment for completeness
- A visual inspection for:
 - Mechanical damage, in particular the power cord
 - Legible labelling of controls
 - Damage to any tube connections
- Final check according to test record or servicing and repair instructions.

Only the original carton should be used for shipping the device. We therefore recommend you to keep the carton in a safe place.

10. Product and Spare parts

Oxynergy Atomizer ®
Connecting tube 3 m
Power cord
Operating instructions
Applicator Gun

11. Technical Data

Product category according to 93/42/EEC	Ila
Dimensions WxHxD in mm	400x700x350
Weight	Approx 20 kg
Temperature range – Operation – Storage	+10°C to +40°C –20°C to +70°C
Power supply	230V, 50 Hz
Power output/current consumption	360W/1.6 A
Mains fuse DIN EN 60 127-2	T 2.5 A H 250V
Classification acc to EN 60601-1 – Protection against electric shock – Degree of protection against electric shock	Class 2 Type B
Electromagnetic compatibility – Radio interference suppression – Radio interference resistance	EN 55011 (VDE 0875 Pt11) IEC 1000-4 Parts 2-6 and 11
Sound pressure level	≤ 40 dB(A)
O ₂ output (values after 10 min. operation at +20°C, 50% relative humidity and 1013 mbar)	95 +1/-3 vol% O ₂ at 1-4 l/min 90 +/- 3 vol% O ₂ at 5l/min
O ₂ output at 2000m above msl	90 +/- 3 vol% O ₂ at 5l/min
Oxygen outlet pressure	95 kPa
Flow rate (read at top of ball)	0.5-5.5 l/min
OSCI O ₂ status indicator as per DIN EN ISO 8359.51.5 Warning at <82% by vol. of O ₂	present
Fault warning	Visual and acoustic
Actuating pressure of pressure relief mechanism	300 kPa
Servicing	Every 5000 operating hours

12. Warranty

Oxynergy offers a warranty that the product, when used in accordance with requirements and adapted products, will remain free from defects for a period of two years from date of purchase.

Claims against the warranty can be made only when accompanied by the sales receipt, which must show salesperson and date of purchase

We offer no warranty in case of:

- Disregard of usage instructions
- Operating errors
- Improper use or handling
- Third-party intervention by non-authorized persons for the purpose of device repair
- Acts of God, e.g., lightning strikes, etc.
- Transport damage as a result of improper packaging of returned items
- Lack of maintenance
- Operational and normal wear and tear, which includes, for example, the following components:
 - Filters
 - Batteries

Oxynergy is not liable for consequential harm caused by a defect if it is not based on intention or gross negligence.

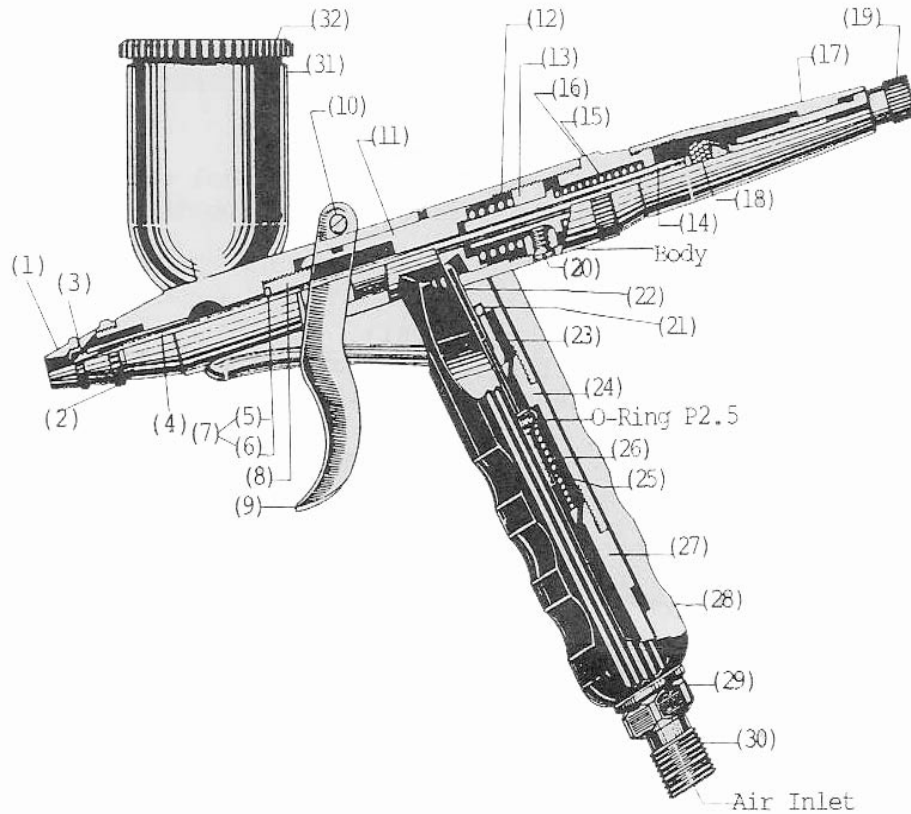
Oxynergy is also not liable for physical injury resulting from negligence or inadequate utilisation.

If Oxynergy rejects a claim against the warranty, it assumes no expense for transport between customer and manufacturer

Application System

1. Legend

- G1. Needle cap
- G2. Oxygen Cap
- G3. Liquid Nozzle
- G4. Needle
- G5. Teflon Packing, Needle
- G6. Viton O-Ring, Needle
- G7. Set of 5 and 6
- G8. Set screw, Needle packing
- G9. Trigger
- G10. Screw, Trigger
- G11. Slider, Shift-Pin
- G12. Spring No. 1
- G13. Guide, Sleeve
- G14. Sleeve, Needle
- G15. Spring No. 2
- G16. Spring casing, Needle
- G17. Handle
- G18. Chucking Nut, Needle
- G19. Material Control
- G20. Set screw M2.6
- G21. O-Ring P-3
- G22. Shift-Pin, Oxygen valve
- G23. Sleeve, Oxygen valve
- G24. Valve Casing
- G25. Oxygen valve with O-ring P 2.5
- G26. Spring No 3
- G27. Oxygen Pipe
- G28. Grip
- G29. Hexagonal nut, grip
- G30. Oxygen connection, PF 1/8
- G31. Material cup
- G32 Cup lid



2. Sprayable products

Accept only liquid and water based form without gelifier.

Oxynergy guarantee only the use of its formulas.

Avoid any product containing oil, alcohol or derivates, or any corrosive, aggressive products for skin.

All products are especially formulated for this application.

3. Application

- Keep distance of 2-15 cm to the surface from a spray gun, and move it in parallel with the surface when spraying.
- Avoid staying more than 3 sec on the same spot or the skin will saturate in product.

4. Adjustment of air and materials

The turning of material control clockwise fully up to stopping releases air only, and the adverse turning of it counter clockwise increase amount of sprayed product.

Adjust the quantity of sprayed product just before to be able to see droplets of products appearing on the skin.

5. Cleaning and maintenance after use

- Remove left product from the cup and fill it with de ionized water.
 - Fill the cup with de ionised water and let it run to clean the inside of the applicator.
 - In case the product sticks to the inside of nozzle and cup, loosen Ring Nut, turn air cap by about 4 mm, and spray DI water with nozzle tip closed with a finger, which provides complete cleaning by back flushing of air into the inside of nozzle.
- Be careful not to damage tip of needle in the procedure.
- After operation dry the applicator by spray only pure Oxygen.

6. Precautions

- When connecting an air hose to a spray gun, avoid to fasten too hard with a spanner or wrench.
- Cover product cup with a lid enough to assure leak tight of product in operation.
- When stopping to work for the moment, blow off the product on the tip of Nozzle by releasing Oxygen only with single moving back on trigger, since trigger is designed in the double action that the initial moving back slightly releases air only and that the further moving back release product gradually.
- Much care should be take in handling oxygen cap, liquid Nozzle and needle.
- Never immerse the applicator into solvent or water after use. The immersion causes sissolving oil supplied inside the applicator and results in packing damage, oxygen leaking and trouble in operation.

7. Trouble shooting

Trouble	Possibilities	Solutions
Product leaks from Nozzle (3) and spray result is abnormal.	<ol style="list-style-type: none"> 1. Spring No.2 (15) is not snugged and not working well. 2. There is a gap in contact point between Nozzle (3) and Needle (4) tip. 3. Tip of Needle (4) is bent or damaged, and/or the inside of Nozzle (3) is scratched or damaged. 	<p>Loosen product control (19) and put oil on needle set screw (17).</p> <p>Loosen Needle set screw (17), and then move forward Needle (4) up to the contact point with Nozzle (3). Fasten Needle screw (17) afterwards. Replace Needel (4) and/or Nozzle (3).</p>
Oxygen leaks from air cap(2)	Shift-pin slider (11) and oxygen valve shift-pin (22) are not working. Foreign object sticks to oxygen valve (25)	Remove Spring No.3 (26) by tweezer and clean O-Ring P2.5 with cloth
No product emerges at all or too little	<ol style="list-style-type: none"> 1. Nozzle (3) is clogged. 2. Needle set screw (17) is loosened. 3. The hole of cup lid is clogged 	Clean the inside with de-ionised water. Fasten Needle set screw (17) enough. Clean the hole opened.