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H_2 HUBB Official Test Report

Product:

Name: UHC-1000
Company: Vigorous Health Company Limited
Mfgr rated H_2 Output: 1000 mL/min
Type: Pure H_2 Inhalation Device (99.999%/5N)

- PEM/SPE
- O_2 port supplied as well.
- Dual-User Device

Model: H3-0033
Tester: Tywon Hubbard (TH)
Testing start date: 5/8/23
Completion date: 5/25/23

PERFORMANCE:

H_2 mL/min Confirmation Test: UHC-1000

- **METHODOLOGY:**
- Distilled Water (used for testing): 6.0 pH
- Water Temperature: 65~70F/ 18.3~21.1C
- Reservoir Vol Size: 1.4 L/1400 mL
- H_2 output: 1000 mL/min or 82.44 mg/min (@ SATP)
- Test Location: 277 meters (909 ft elevation)
- H_2 Flow Test: mL/min, normal timing for a breathing session
    - Test methodology: Gas Displacement
    - All measurements converted to SATP

H_2 Flow Rate Test Results at SATP:

- Device H_2 mL/min (mg/min) avg single user: ≅ 1062 mL/min: converts: 87.56 mg/min
- Device H_2 mL/min (mg/min) avg dual user: ≅ 531 mL/min: converts: 44.0 mg/min
- Claimed Mfgr's H_2 mL/min (mg/min) confirmed: Yes

PRODUCT ASSESSMENT:

Functionality:

- **Main master switch**
    - Located on the back of the system and provides power to the device.
    - Once the master switch is turned on, the LED digital display turns on.
- **LED Digital Display and control panel**
    - **CH1**
    - Displays hydrogen gas production in cc/min (mL/min)
    - **CH2**
    - Displays oxygen gas production in cc/min (mL/min)
    - **Start/Stop button**
    - Initiates electrolysis for hydrogen gas inhalation.
    - Tapping the start/stop button while the device is producing hydrogen gas will stop electrolysis/hydrogen gas production.
    - **Reset button**
    - Holding this button down for 5 seconds will reset the reservoir filter for another 6 months.

    - Tapping the reset button will reset the system if the gas block sensor is triggered.
    - **Single/dual button**
    - This button allows the users to select the single-user or dual-user mode of the device.
    - **Activation**
        - **Set hour button**
        - Increases the session time by 1-hr intervals up to 12 hrs.
        - **Set minutes button**
        - Increases the session-time frame by 1-minute intervals up to 59 minutes.
    - **Night mode**
    - The night mode button will dim the display.
    - **Indicators lights**
        - **Single user**
        - Indicates the system is in single-user mode.
        - **Dual users**
        - Indicates the system is in dual-user mode.
        - **Water empty**
        - Indicates the reservoir needs more water.
        - **Water full**
        - Indicates the reservoir is full.
        - **Filter**
        - Notifies the user that the reservoir filter needs to be changed.
        - **Block**
        - Notifies the user that there is a gas blockage.
        - **Error**
        - Notifies the user of an internal error. (check the user manual to resolve)
- **Reservoir (1.4L or 1400 mL)**
    - Requires 1.4 liters of distilled water.
- **H_2 ports**
    - Delivers the H_2 gas production for H_2 inhalation for single or dual users.
    - Two ports
- **O_2 port**
    - Delivers the O_2 gas production for H_2/O_2 inhalation for single or dual users.
    - One port
- **Drain port/Drain fitting**
    - Allows you to drain the distilled water reservoir with a special fitting.
- **Factory data ports (1 & 2)**
    - Located on the back of the system and allow the manufacturer to track the use of the device.

Reliability:

- **New: No**
    - Initial test results and evaluation are currently on the report. (see Overall Opinion)
- **3 months:** N/A
- **6 months:** N/A
- **1 year:** N/A
- **Reliability Summary**
    - N/A

PRODUCT SAFETY:

Safety Components:

- The system has 5 fundamental safety mechanisms for ensuring the device's safety.
    - Low-water protection
        - Protects cells from excessive heat (two cells)
    - Gas blockage protection
        - Prevents build-up of internal pressure or pressurized hydrogen gas.
    - Internal Fans
        - May also aid in preventing overheating and prevents hydrogen gas build-up in case of leaks.
    - Power/ internal error abnormality protection
        - May prevent sag, swell, surge, and internal interruption
    - Large Heat Vents
    - Prevents excessive heat in the system (4X)

- The system theoretically should only be combustible at the tip of the nasal cannula as the system produces >99% pure hydrogen gas.

As with all inhalation devices that produce pure hydrogen gas, care should be taken to avoid exposing the cannula tip to any source of ignition (such as an open flame or a spark) which could result in the combustion of the gas.

Summary Report Only.
Not Full Test Report.

Other testing and technical sections are not included out of respect and professional courtesy of the RPC.

H_2 Hubb LLC disclaimer: All tests conducted and test results produced by H_2 Hubb LLC have been done according to industry-accepted practices and standards. Nevertheless, these results may not necessarily reflect test results performed by manufacturers, suppliers, or third-party labs. Our test results are independent of all other parties, and testing by other parties may produce different results. We understand that many variables are involved in testing, some of which are extremely difficult to control. These reports are not meant or intended for any other purpose but to uphold H_2 Hubb LLC's business practices and to validate the reasons for our recommendations.

Approved by:

Tywon Hubbard CEO of H_2HUBB