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H_2 HUBB Official Test Report

Product:
Name: VHLife 300 mL/min Hydrogen Health Machine.
Company: Vigorous Health Company Limited.
Type: 300 mL/min H_2 Inhalation Device

- Pure H_2 Inhalation (>99.999/5N)
  - PEM/SPE
- Hydrogen-rich water
  - Specialized hydrogen water bottle
  - High RPM mixing function to dissolve H_2

Model: OH-300
Serial Number: 0009
Tester: Tywon Hubbard (TH)
Testing start date: 7/24/2023
Completion date: 7/26/2023

PERFORMANCE:
H_2 mL/min Confirmation Test: OH-300

- **METHODOLOGY:**
- Distilled Water (used for testing): 6.0 pH
- Water Temperature: 65~70F/ 18.3~21.1C
- Reservoir Vol Size: 0.7 L/700 mL
- H_2 output: 300 mL/min or 24.73 mg/min (@ SATP)
- Test Location: 277 meters (909 ft elevation)
- H_2 Flow Test: mL/min, normal timing for breathing session
  - Test methodology: Gas Displacement
  - All measurements converted to SATP

H_2 mg/L Concentration Test: Specialized Hydrogen Water Bottle

- **METHODOLOGY:**
- Distilled Water (used for testing): 6.0 pH
- Water Temperature: 65~70F/ 18.3~21C
- Water bottle Vol Size: 0.6L or 600 mL (20.2 oz)
- pH: The unit did not increase the pH of the water
- Dissolution Session Time Frame: 120 seconds (2-minutes)
- Test Location: 277 meters (909 ft elevation)
- Test Methodology: Titration: H_2Blue Test Reagent
- All mg/L Concentration Test Converted to SATP (water temp and pressure)
- Claimed H_2 mg/L: Unstated

H_2 Flow Rate Test Results at SATP:

- **Device H_2 mL/min (mg/min) avg:** 309 mL/min: converts: 25.47 mg/min
- **Claimed Mfgr's H_2 mL/min (mg/min) confirmed:** Yes

H_2 mg/L (ppm) Concentration Test at SATP:

- **2-mins avg mg/L (ppm):** ≅ 1.51 mg/L (ppm)
- **Avg H_2 mg Dissolved in Designated Vol:**
  - **After 120 seconds:** 0.90 mg

PRODUCT ASSESSMENT:

Functionality:

- **Power on/off button**
  - Turns the system on and off.
  - Activate the digital touch display
- **Operation interface**
  - *Filter use*: Displays filter usage time frame in the upper left corner of the display.
  - *Hours*: Displays the selected time frame for the H_2 inhalation session.
  - *Time*: Display the H_2 inhalation session time-frame (1hr, 2hr, 4hr, 8hr)
  - *Home*: Allows the user to return to the main menu.
  - *Pause*: Pauses the hydrogen production.
- **H_2 outlet port**
  - Connection port for H_2 gas inhalation.
- **O_2 outlet port**
  - Connection port to add O_2 gas to H_2 gas for oxyhydrogen inhalation.
- **Distilled water reservoir (700 mL)**
  - Requires distilled water only.
- **Reservoir filter cartridge**
  - Filters reservoir water to improve gas purity and should be replaced every 6 months.
- **Device notification**
  - **Low water**
  - Indicates the reservoir needs more water.
  - **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 error with the device. (check the user manual to resolve)
- **Specialized hydrogen water bottle**
  - 600 mL hydrogen water bottle with high rpm mixing/dissolution function.
  - *Power button*: Press the power button twice to activate the bottle.

PRODUCT SAFETY:

Safety Components:

- The system has 5 key safety mechanisms for improving the safety of the device.
  - Low water shortage protection
    - Prevent cell from excessive heat
  - Gas blockage protection
    - Prevents build-up of internal pressure or pressurized hydrogen gas.
  - Internal error notification
    - Notifies the user of an error with the device.
  - Internal Fans
    - May also aid in preventing overheating and prevents hydrogen gas build-up in case of leaks.
  - Large Heat Vents
    - Prevents excessive heat in the system

- 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 business practices and to validate the reasons for our recommendations.

Approved by: Tywon Hubbard