



Food and Drug Administration
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March 23, 2016

Trophy Skin, Inc.
% Sue Anthony-Dewet
FDA Consultant
Aegis Regulatory, Inc.
2424 Dempster Drive
Coralville, IA 52241

Re: K152199

Trade/Device Name: RejuvatoneMD
Regulation Number: 21 CFR 882.5890
Regulation Name: Transcutaneous electrical nerve stimulator for pain relief
Regulatory Class: Class II
Product Code: NFO
Dated: February 17, 2016
Received: February 23, 2016

Dear Ms. Anthony-Dewet:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the [Federal Register](#).

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801 and Part 809); medical device reporting (reporting of

medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and Part 809), please contact the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

<http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

Michael J. Hoffmann -A

for Carlos L. Peña, PhD, MS
Director
Division of Neurological
and Physical Medicine Devices
Office of Device Evaluation
Center for Devices and Radiological Health

Enclosure

Indications for Use

510(k) Number (if known)

K152199

Device Name

RejuvatoneMD

Indications for Use (Describe)

The RejuvatoneMD is intended for facial stimulation and is indicated for over-the-counter cosmetic use.

Type of Use (Select one or both, as applicable)

Prescription Use (Part 21 CFR 801 Subpart D)

Over-The-Counter Use (21 CFR 801 Subpart C)

CONTINUE ON A SEPARATE PAGE IF NEEDED.

This section applies only to requirements of the Paperwork Reduction Act of 1995.

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510(k) Summary

K152199

This 510(k) summary information is being submitted in accordance with the requirements of 21 CFR § 807.92

Date Prepared: March 23, 2016

1. Submitter Information: AEGIS Regulatory, Inc. – Susan Anthony-DeWet
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On Behalf of Sponsor: Trophy Skin, Inc.

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2. General Information

2.1 Classification Name: Transcutaneous Electrical Nerve Stimulator for Aesthetic Purposes

2.2 Common/Usual Name: TENS Device

2.3 Proprietary Names: RejuvatoneMD

2.4 Classification: Class II

2.5 Classification Number: 882.5890

2.6 Review Panel: Neurology

2.6 Product Code: NFO

3. Device Description:

The **RejuvatoneMD** device is a non-invasive at-home facial stimulation device intended for cosmetic use. The device works by delivering low-level electrical microcurrent impulses through dual contact spheres to strategic locations on the face and allows users to adjust the output level for personalized comfort.

4. Indications / Intended Use:

The RejuvatoneMD is intended for facial stimulation and is indicated for over-the-counter cosmetic use.

Rx or OTC:

The labeling, instructions, and User Operations (21 CFR § 801.60 and 61), are designed for layman understanding and use. The predicate devices are indicated for (OTC) use.

5. Predicate Device:

The RejuvatoneMD device is substantially equivalent in design, function and intended use to the following predicate device:

1. K133823 – NuFace Mini (Carol Cole Company)

6. Technological Characteristics and Substantial Equivalence

The technological characteristics of the RejuvatoneMD device and the predicate device, are substantially equivalent in that both devices are designed to provide electrical stimulation to the facial skin for cosmetic use. The RejuvatoneMD and the predicate device function using the same mode of action by producing microcurrent that is discharged through electrodes that are in contact with the patient's skin, and both have user adjustable settings . The technical characteristics and physical properties presented in this submission demonstrate that the RejuvatoneMD device is substantially equivalent in design, function and intended use to the predicate device.

Sections below compare the characteristics of the RejuvatoneMD and the predicate device:

| Elements of Comparison | | Subject Device | Predicate Device |
|---|-----|--|--|
| Device Name and Model | | RejuvatoneMD, Model: TSTONEMD | NuFACE® Mini Device |
| 510(k) Number | | Applying | K133823 |
| Product Code | | NFO | NFO |
| Manufacturer | | Trophy Skin, Inc. | Carol Cole Company |
| Intended Use | | This device is intended for facial stimulation and is indicated for over-the-counter cosmetic use. | The NuFACE® Mini Device is intended for facial stimulation and is indicated for over-the-counter cosmetic use. |
| Power Source(s) | | 9V battery (Type: 6LR61) | 2 rechargeable AA NiMH batteries |
| Applied Part | | Type BF | Type BF |
| Patient Leakage Current | NC | 60µA Comply with IEC 60601-1 and IEC 60601-2-10 | 56µA Comply with IEC 60601-1 and IEC 60601-2-10 |
| | SFC | 360µA Comply with IEC 60601-1 and IEC 60601-2-10 | 374µA Comply with IEC 60601-1 and IEC 60601-2-10 |
| Average DC current through electrodes when device is on but no pulses are being applied | | 0A | -- |
| Number of Output Channels | | One channel | One channel |
| Number of Output Modes | | 1 mode | 1 mode |
| Output Intensity Level | | 5 steps | 3 steps |
| Synchronous or Alternating? | | N/A - 1 Output Channel | N/A - 1 Output Channel |
| Method of Channel Isolation | | N/A - 1 Output Channel | N/A - 1 Output Channel |
| Regulated Current or Regulated Voltage? | | Both | Both |

| Elements of Comparison | | Subject Device | Predicate Device |
|---|------------------------|---|---|
| Software/Firmware/Microprocessor Control? | | Yes | Yes |
| Automatic Overload Trip | | Not required due to circuit design | Not required due to circuit design |
| Automatic No-Load Trip | | No | Yes |
| Automatic Shut Off | | Yes | Yes |
| Patient Override Control | | Yes | Yes |
| Indicator Display | On/Off Status | Yes | Yes |
| | Low Battery | No | Yes |
| | Voltage/ Current Level | Yes | Yes |
| Timer Range | | Yes (20 minutes) | Yes (21 minutes) |
| LCD Display | | No | No |
| Compliance with Voluntary Standards | | Yes Comply with IEC 60601-1 and IEC 60601-2-10, IEC 60601-1-2 | Yes Comply with IEC 60601-1 and IEC 60601-1-2 |
| Biocompatibility | | All user directly contacting materials are compliance with ISO10993-5 and ISO10993-10 requirements. | All user directly contacting materials are compliance with ISO10993-5 and ISO10993-10 requirements. |
| Compliance* with 21 CFR 898 | | Yes | Yes |
| Main Unit Weight | | 248g | 816g |
| Dimensions | | 55.0mm x 35.0mm x 177.2mm (L x W x H) | 2.5" W x 4.2" L x 1.2" D |
| Electrode Size | | 0.81cm ² | -- |
| Housing Materials and Construction | | Housing made from ABS plastic and output contacts made from ACD12 Chrome. | Thermo Plastic |
| Environment for operating | | Temperature: 5 ~ 45° | Temperature: 5 ~ 40° C |

| Elements of Comparison | Subject Device | Predicate Device |
|---------------------------------|--|---|
| | Humidity: 20 ~ 65% RH | Humidity: 20 ~ 65% RH |
| Environment for storage | Temperature: 0 ~ 45° Humidity: 10 ~ 90% RH | Temperature: 0 ~ 40° C Humidity: 10 ~ 90% RH |
| Waveform | Pulsed Monophasic | Pulsed Monophasic |
| Shape | Modulated Square | Modulated Square |
| Maximum Output Voltage(+/- 10%) | 256mV@500Ω | 222mV@ 500Ω |
| | 806mV@2KΩ | 781mV@ 2KΩ |
| | <u>4.02V@10KΩ</u> | 3.90V@ 10KΩ |
| Maximum Output Current(+/- 10%) | 512μA @ 500Ω | 396μA @ 500Ω |
| | 403μA @ 2KΩ | 395μA @ 2KΩ |
| | 403μA @ 10KΩ | 391μA @10KΩ |
| Pulse Duration | ON phase: 60 ms OFF phase: 60 ms Total Pulse Width: 120 ms | ON phase: 60.4 ms OFF phase: 60.4 ms Total Pulse Width: 120.8 ms |
| Pulse Frequency | 8.33Hz | 8.28 Hz |
| Net Charge (per pulse) | 0μC @ 500Ω | 1.43μC @ 500Ω |
| Maximum Phase Charge | 24.18μC @ 500Ω | 23.7μC @ 500Ω |
| Maximum Current Density | 0.498mA/cm ² @500Ω (Minimum Electrode Contact Area:0.81cm ²) | 0.514mA/cm ² @500Ω (Minimum Electrode Contact Area:0.771cm ²) |
| Maximum Average Power Density | 32.77μW/cm ² @500Ω (Minimum Electrode Contact Area:0.81cm ²) | 99.05μW/cm ² @500Ω (Minimum Electrode Contact Area:0.771cm ²) |
| Maximum Power Density | 2005μW/cm ² @10kΩ(Minimum Electrode Contact Area: 0.81cm ²) | 1981μW/cm ² @10kΩ(Minimum Electrode Contact Area: 0.771cm ²) |

| Elements of Comparison | | Subject Device | Predicate Device |
|---------------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| Burst Mode (i.e., pulse trains) | a. Pulses per burst | 20 | 20 |
| | b. Pulses per second | 8.33 | 8.28 |
| | c. Burst duration (seconds) | 2.4 | 2.42 |
| | d. Duty Cycle[line (b)xline (c)] | 20 | 20 |
| Contraction and Relaxation Time | | Adjustable, due to different modes. | Adjustable, due to different modes. |

The RejuvatoneMD has similar technological characteristics with the predicate device in the product design, material, program mode and output waveform.

There are minor differences between the RejuvatoneMD device and the predicate device in the electrode size and subsequently the output characteristics including “Maximum Output Voltage”, “Maximum Output Current”, “Pulse Duration”, “Pulse Frequency”, “Net Charge (per pulse)”, “Maximum Average Current”, “Maximum Phase Charge”, “Maximum Current Density”, “Maximum Average Power Density”, and “Burst Mode (i.e., pulse trains).” The output specification of the RejuvatoneMD device is very close to the predicate device in these areas and within an acceptable range. Both the predicate device and the RejuvatoneMD device comply with IEC 60601-1, IEC 60601-2-10 requirement. So the differences of function specification do not raise any safety or effectiveness issue and does not effect the determination of substantial equivalence.

7. Performance Testing and Standards:

Safety & performance testing demonstrates that the RejuvatoneMD is at least as safe and effective as the legally marketed predicate device.

The RejuvatoneMD device has been tested and conforms to international consensus standards:

ELECTRICAL SAFETY:

Recognition Number 19-4:

- IEC/EN 60601-1:2005 Edition 3/(R)2012 And A1:2012 Medical Electrical Equipment - Part 1: General Requirements For Basic Safety And Essential Performance (Iec 60601-1:2005, Mod). (General II (ES/EMC))

PERFORMANCE:

Recognition Number 17-11:

- **IEC 60601-2-10 Edition 2.0 2012-06, Medical Electrical Equipment -- Part 2-10: Particular Requirements For The Basic Safety And Essential Performance Of Nerve And Muscle Stimulators. (Neurology)**

EMC:

Recognition Number 19-1:

- **IEC 60601-1-2 Edition 3: 2007-03, Medical Electrical Equipment - Part 1-2: General Requirements For Basic Safety And Essential Performance - Collateral Standard: Electromagnetic Compatibility - Requirements And Tests. (General II (ES/EMC))**

LABEL VALIDATION:

A Usability/Label Comprehension Study was conducted in order to validate the device labeling with 30 participants.

The results of the final study group found that over 95% of the participants were able to:

- Correctly Self-Select the device as the correct or incorrect device for themselves
- Correctly complete the Comprehension portion of the study
- Correctly perform the Device Use portion of the study

In addition to the testing above, the RejuvatoneMD was designed referencing the following standards and FDA Guidance documents:

USABILITY:

Recognition Number 5-85:

- IEC 60601-1-6 Medical electrical equipment – Part 1-6: General requirements for safety – Collateral Standard: Usability Edition 3.0, 2010

Recognition Number 5-67:

- **IEC 62366:2007/(R)2013, Medical Devices - Application Of Usability Engineering To Medical Devices. (General I (QS/RM))**

RISK MANAGEMENT:

Recognition Number 5-40:

- ISO 14971:2007, ed.2 + MDD 93/42/EEC Annex I, IEC 60601-1, ed. 3+A1, **Medical Devices - Application Of Risk Management To Medical Devices. (General I (QS/RM))**

SOFTWARE DESIGN:

Recognition Number 13-8:

- **IEC 62304 First Edition 2006-05, Medical Device Software - Software Life Cycle Processes. (Software/Informatics)**
- *Guidance for the Content of Premarket Submissions for Software Contained in Medical Devices, May 11, 2005; and*
- *General Principles of Software Validation: Final Guidance for Industry and FDA Staff, January 11, 2002*

8. Substantial Equivalence Conclusion

After an analysis of the safety, indications, intended uses, performance features, design materials, biocompatibility, power output, technological properties, treatment areas, treatment regimes and

methods of operation, the Sponsor believes that no significant differences exist between the device and the predicate device. Minor differences in the technological characteristics of the RejuvatoneMD device and the predicate devices do not raise any issues of safety or effectiveness Therefore substantial equivalency is requested.