



Biolife, LLC  
c/o Karen O'Toole  
Manager, QA/RA  
1235 Tallevast Road  
Sarasota, Florida 34243-3271

July 28, 2023

Re: K080210  
Trade/Device Name: PRO QR (Quick Relief)<sup>®</sup> Powder  
Regulatory Class: Unclassified  
Product Code: QSY

Dear Karen O'Toole:

The Food and Drug Administration (FDA) is sending this letter to notify you of an administrative change related to your previous substantial equivalence (SE) determination letter dated February 10, 2009. Specifically, FDA is updating this SE Letter because FDA has better categorized your device technology under product code QSY.

Please note that the 510(k) submission was not re-reviewed. For questions regarding this letter please contact Julie Morabito, OHT4: Office of Surgical and Infection Control Devices, 240-402-3839, [Julie.Morabito@fda.hhs.gov](mailto:Julie.Morabito@fda.hhs.gov).

Sincerely,

**Julie A. Morabito -S**

Julie Morabito, Ph.D.  
Assistant Director  
DHT4B: Division of Infection Control  
and Plastic Surgery Devices  
OHT4: Office of Surgical  
and Infection Control Devices  
Office of Product Evaluation and Quality  
Center for Devices and Radiological Health



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Biolife, LLC  
% Ms. Karen O'Toole  
Manager, QA/RA  
1235 Tallevast Road  
Sarasota, Florida 34243

FEB 10 2009

Re: K080210  
Trade/Device Name: PRO QR (Quick Relief)<sup>®</sup> Powder  
Regulatory Class: Unclassified  
Product Code: FRO  
Dated: January 12, 2009  
Received: January 13, 2009

Dear Ms. O'Toole:

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.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such 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); 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. This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally

Page 2 – Ms. Karen O'Toole

marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Center for Devices and Radiological Health's (CDRH's) Office of Compliance at (240) 276-0115. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding postmarket surveillance, please contact CDRH's Office of Surveillance and Biometric's (OSB's) Division of Postmarket Surveillance at (240) 276-3474. For questions regarding the reporting of device adverse events (Medical Device Reporting (MDR)), please contact the Division of Surveillance Systems at (240) 276-3464. You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Mark N. Melkerson  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure



Device Name: PRO QR (Quick Relief)<sup>®</sup> Powder

Indications for Use:

**OTC:**

**PRO QR Powder for minor external bleeding from wounds and procedures** is intended for use as a topical dressing for bleeding control associated with minor wounds, including control of minor external bleeding and exudate from sutures and/or surgical procedures.

**Rx:**

**PRO QR Powder for moderate to severe external bleeding wounds** is intended for emergency use of temporary external treatment for controlling moderate to severe bleeding.

Prescription Use  X  AND/OR Over-The-Counter Use  X   
(Part 21 CFR 801 Subpart D) (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE) Page  1  of  1

Neil R. Ogle for exam  
(Division Sign-Off)  
Division of General, Restorative,  
and Neurological Devices

510(k) Number  K080210



**SECTION 5:**

**510(k) SUMMARY**

**FEB 10 2009**

**5.1 Sponsor**

Biolife, LLC  
1235 Tallevast Road  
Sarasota, FL 34243  
Telephone: 941-360-1300  
Fax: 941-355-2187  
Registration Number: 1066421  
Contact Person: Karen O'Toole

**5.2 Date Summary was Prepared**

January 12, 2009

**5.3 Device Information**

Proprietary Name: PRO QR (Quick Relief)<sup>®</sup> for Minor External Bleeding from Wounds and Procedures  
PRO QR (Quick Relief)<sup>®</sup> for Moderate to Severe External Bleeding Wounds  
Common Name: Hemostatic Powder Wound Dressing  
Classification Name: Dressing, Unclassified

**5.4 Predicate Device**

Biolife, L.L.C.; PRO QR (Quick Relief)<sup>®</sup> Powder (K070520)  
Medafor, Inc.; HemaDerm (K021678)  
On Site Gas Systems, Inc.; QuikClot (K013390)



## 5.5 Device Description

*Components* – QR Powder is composed of two main components: potassium iron oxyacid salt, and a hydrophilic polymer.

*Mechanism of Action* – QR Powder achieves its principle intended action (hemostasis) by creating a physical barrier or seal to stop the flow of blood. When poured on a wound and upon contact with blood or exudate, in combination with manual pressure to the wound, QR Powder quickly forms a strong seal that completely covers the wound.

## 5.6 Intended Use

***PRO QR Powder for minor external bleeding from wounds and procedures*** is intended for OTC use as a topical dressing for bleeding control associated with minor wounds, including control of minor external bleeding and exudate from sutures and/or surgical procedures.

***PRO QR Powder for moderate to severe external bleeding wounds (Rx)*** is intended for emergency use of temporary external treatment for controlling moderate to severe bleeding.

## 5.7 Substantial Equivalence

PRO QR Powder has substantially equivalent indications to the HemaDerm (K021678) and QuikClot (K013390) predicates in that they are indicated for topical application as an aid in the control of temporary external bleeding associated with minor to severely bleeding wounds. PRO QR Powder (K080210) uses the same safe and effective technology as PRO QR (K070520). The subject and predicate devices are made from materials which have demonstrated satisfactory biocompatibility, are highly absorbent for collecting body fluids, and are sterile, single use devices.

## 5.8 Performance Testing

### *Biocompatibility Testing–*

Cytotoxicity, Sensitization, Irritation (skin and mucosal surface), Acute Systemic Toxicity, Ames Mutagenicity, Endotoxin, Pyrogen, Analysis of Hydrophilic Polymer for Styrene, Ethylstyrene and DVB, Histologic Assessment of Acute PRO QR Exposure in a Porcine Wound Model; IR Analysis of QR Powder and hydrophilic polymer for cellulose, XRD and XRF for potassium iron oxyacid salt impurities.



*In vitro* Testing – Absorption Study, Acid Base Interaction Study, Scanning Electron Microscopy (SEM) Analysis, Potassium (K) and Iron (Fe) Extraction, Gravimetric Determinations of PRO QR, Hemostatic Properties of PRO QR Powder as a function of its Quantitative Stability-Indicating Moisture and Potassium Iron Oxyacid Salt content.

#### *Animal Studies*

*Animal Study 1* - A GLP Preclinical Study Evaluating Hemostasis Efficacy and Safety Using PRO QR Advanced Formula Powder in the Swine Model – QRPA Series

*Animal Study 2* - Evaluation of a Novel Hemostatic Agent for Rapid Hemorrhage Control in a Model of Lethal Arterial Extremity Injury in Swine.

*Animal Study 3* – A Swine Model to Demonstrate Powder Coverage Area and to Demonstrate That PRO QR Does Not Impede Healing

*Clinical Study* - Not Applicable.

## **5.9 Conclusion**

PRO QR Powder induce hemostasis by fluid dehydration, protein coagulation and agglomeration the same as PRO QR (K070520) predicate device. QR Powder has been shown in testing to be equivalent to, if not better than, the QuikClot Powder predicate device in rapid hemorrhage control in a swine model of lethal arterial extremity. In addition study results for safety showed that QR Powder provided a significant advantage over QuikClot. Safety and efficacy was also demonstrated for bleeding control in vascular access procedures using a swine model both acutely and subchronically (2 weeks). Biolife, LLC believes that, as a result of the biocompatibility testing, *in vitro* testing, and non-clinical animal testing, PRO QR Powder is safe and effective as an aid in the control of temporary external bleeding associated with moderate to severe bleeding. PRO QR Powder is substantially equivalent to the predicate devices, PRO QR Powder, HemaDerm, and QuikClot.