

# SAFETY DATA SHEET

## Section 1 IDENTIFICATION

**Product Name:** WoundSeal

**Synonyms:** QR (Quick Relief)® for Minor External Bleeding from Wounds and Procedures

**Recommended uses:** First aid for Bleeding Wounds

**Recommended Restriction:** Use only as directed

**Manufacturer** Biolife LLC  
8163 25<sup>th</sup> Court  
Sarasota, FL, 34243 USA  
**Telephone number:** 941-360-1300  
www.biolife.com

## 2. HAZARD(S) IDENTIFICATION

**Classification:**

| Physical      | Health        |
|---------------|---------------|
| Not Hazardous | Not Hazardous |

**Label Elements:** None Required

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical name      | CAS No.     | Concentration |
|--------------------|-------------|---------------|
| Ion Exchange Resin | Proprietary | 85-90%        |
| Potassium Ferrate  | Proprietary | 10-15%        |

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

## 4. FIRST-AID MEASURES

**Inhalation:** Remove victim to fresh air. If irritation occurs, get medical attention.

**Skin contact:** This product is intended for use on the skin. No adverse effects are expected.

**Eye contact:** Flush eyes thoroughly with water for several minutes while lifting the upper and lower lids. Get medical attention if irritation persists.

**Ingestion:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if any adverse effects occur.

**Most important symptoms/effects, acute and delayed:** May cause mild eye and skin irritation. Inhalation of dust may cause upper respiratory tract irritation with coughing and sneezing. Ingestion may cause gastrointestinal irritation, nausea and vomiting.

**Indication of immediate medical attention and special treatment, if necessary:** Immediate medical attention is not required under normal use conditions.

## 5. FIRE-FIGHTING MEASURES

**Suitable (and unsuitable) extinguishing media:** Use dry chemical, sand or soda ash. Do not use water or foam.

**Specific hazards arising from the chemical:** This product is not flammable or combustible. Polymer portion of the powder will sublime at  $>300^{\circ}\text{C}$ .

**Special protective equipment and precautions for fire-fighters:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Wear appropriate protective clothing and equipment as described in Section 8. Wash thoroughly after handling.

**Environmental hazards:** Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

**Methods and materials for containment and cleaning up:** Pick up material in a way to avoid creating dust and dispose in an appropriate container.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Keep the package closed until ready to use. Wash hands thoroughly after handling.

**Conditions for safe storage, including any incompatibilities:** Store in a cool, dry location.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure guidelines:**

|                    |                  |
|--------------------|------------------|
| Ion Exchange Resin | None Established |
| Potassium Ferrate  | None Established |

**Appropriate engineering controls:** Good general room ventilation (equivalent to outdoors) should be adequate under normal conditions. If exposures are excessive increased mechanical ventilation such as local exhaust may be required.

**Individual protection measures, such as personal protective equipment:**

**Respiratory protection:** None needed under normal use conditions. If exposures are excessive, use a NIOSH approved dust/mist respirator. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

**Skin protection:** None required. Wash hands thoroughly after handling.

**Eye protection:** Follow facility requirements.

**Other:** None required.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Brown powder

**Odor:** None to slightly astringent

|                                                                                           |                                                  |
|-------------------------------------------------------------------------------------------|--------------------------------------------------|
| <b>Odor threshold:</b> Not available                                                      | <b>pH:</b> Not applicable                        |
| <b>Melting point/freezing point:</b> Polymer portion of the powder will sublime at >300°C | <b>Initial boiling point and boiling range:</b>  |
| <b>Flash point:</b> Not applicable                                                        | <b>Evaporation rate:</b> Not applicable          |
| <b>Flammability (solid, gas):</b> Not flammable                                           |                                                  |
| <b>Flammable limits: LEL:</b> Not applicable                                              | <b>UEL:</b> Not applicable                       |
| <b>Vapor pressure:</b> Not applicable                                                     | <b>Vapor density:</b> Not applicable             |
| <b>Relative density:</b> 0.8                                                              | <b>Solubility in Water:</b> Insoluble            |
| <b>Partition coefficient: n-octanol/water:</b> Not applicable                             | <b>Auto-ignition temperature:</b> Not applicable |
| <b>Decomposition temperature:</b> Not available                                           | <b>Viscosity:</b> Not applicable                 |

## 10. STABILITY AND REACTIVITY

**Reactivity:** May react with water and moisture.

**Chemical stability:** If the material is kept dry and near 25°C, it is very stable. It will exothermically react with water and other liquids, producing oxygen as it decomposes.

**Possibility of hazardous reactions:** Reacts with water and moisture.

**Conditions to avoid:** Avoid unintentional moisture and contact the air.

**Incompatible materials:** Avoid oxidizing agents.

**Hazardous decomposition products:** Thermal decomposition may produce oxygen and iron oxide.

## 11. TOXICOLOGICAL INFORMATION

### Acute effects of exposure:

**Inhalation:** Inhalation of dust may cause mild upper respiratory irritation with coughing and sneezing.

**Ingestion:** Swallowing large amounts may cause gastrointestinal irritation, nausea and vomiting.

**Skin contact:** May cause mild skin irritation. This product reacts exothermically when exposed to water. This may result in a physical burn.

**Eye contact:** May cause mild irritation with redness and tearing.

**Chronic Effects:** None known.

**Germ Cell Mutagenicity:** None of the components have been shown to cause germ cell mutagenicity.

**Reproductive Toxicity:** None of the components have been shown to cause reproductive or developmental effects.

**Carcinogenicity:** None of the components of this product are listed as carcinogens or suspected carcinogens by IARC, NTP, ACGIH or OSHA.

### Acute toxicity values:

Product: Oral rat LD50 >5000 mg/kg; Dermal rabbit LD50>2000 mg/kg

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

Ion Exchange Resin: No data available.

Potassium Ferrate; No data available

**Persistence and degradability:** Biodegradation is not applicable to inorganic substances.

**Bioaccumulative potential:** This product is not expected to bioaccumulate.

**Mobility in soil:** No data available

**Other adverse effects:** None known

### 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations.

### 14. TRANSPORT INFORMATION

|      | UN Number | Proper shipping name | Hazard Class | Packing Group | Environmental Hazard |
|------|-----------|----------------------|--------------|---------------|----------------------|
| DOT  |           | Not Regulated        |              |               |                      |
| TDG  |           | Not Regulated        |              |               |                      |
| IMDG |           | Not Regulated        |              |               |                      |
| IATA |           | Not Regulated        |              |               |                      |

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable – product is transported only in packaged form.

**Special precautions:** None known

### 15. REGULATORY INFORMATION

**Safety, health, and environmental regulations specific for the product in question.**

**CERCLA Hazardous Substances (Section 103)/RQ:** This product is not subject to CERCLA reporting requirements as it is sold. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA Hazard Category (311/312):** Not hazardous

**EPA SARA 313:** This product contains the following chemicals regulated under SARA Title III, section 313: None

**EPA TSCA Inventory:** All of the components of this product are listed on the TSCA inventory.

### 16. OTHER INFORMATION

**NFPA Rating:** Health = 1      Flammability = 0      Instability = 2  
**HMIS Rating:** Health = 1      Flammability = 0      Physical Hazard = 2

**SDS Revision History:** New SDS

**Date of preparation:** November 4, 2016

**Date of last revision:** New SDS