

# Safety Data Sheet

Control Number: 907-048

Antigen Retrieval 2 (AR2), low pH, ORI6005  
RISH™ Retrieval for ONCORE™ (AR3), ORI6021  
January 22, 2018

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## 1. Product and Company Identification

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|--|--|
| <b>Product(s)</b>                      | Antigen Retrieval 2 (AR2), low pH (ORI6005)<br>ISH Retrieval (AR3) (ORI6021)   |
| <b>Related Product Kit</b>             | N/A  |
| <b>Intended Use &amp; Restrictions</b> | Immunohistochemistry (IHC) and <i>in situ</i> hybridization (ISH) reagents intended for use by professional laboratory personnel that have been properly trained in its use. |
| <b>Company Information</b>             | Biocare Medical, LLC<br>60 Berry Drive<br>Pacheco, CA 94553<br>United States<br>Tel: +1 800-799-9499 (7AM–5PM, PST, Mon-Fri)<br>Fax: +1 925-603-8080<br>Web: www.biocare.net |
| <b>24-Hour Emergency Contact</b>       | CHEMTREC<br>+1 800-424-9300 (USA and Canada only)<br>+1 703-527-3887 (all other countries)   |

## 2. Hazards Identification

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|   |   |
|---|---|
| <b>Emergency Overview</b>   | This product has been classified as non-hazardous based on the physical and/ or chemical nature and/ or concentration of ingredients.<br><br>Product has little to no hazards for Emergency Responders if spilled and has no unusual hazard if in a fire.   |
| <b>OSHA Hazards</b>   | Not Hazardous<br><br>While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. |
| <b>GHS Classification<br/>Signal words, Symbol,<br/>Hazard &amp;<br/>Precautionary<br/>Statements</b> | Not Hazardous   |

### Potential Health Effects

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|                              |   |
|------------------------------|---|
| <b>Skin Contact</b>          | May be irritating if exposed to skin. May cause skin irritation, itching, redness or inflammation.  |
| <b>Eye Contact</b>           | May be irritating if exposed to eyes. May cause eye irritation, watering eyes, stinging or burning sensation.   |
| <b>Inhalation</b>            | May be irritating if inhaled. May cause respiratory tract irritation, headache, dizziness, nausea or coughing.  |
| <b>Ingestion</b>             | May be irritating if swallowed. May cause irritation of gastrointestinal tract, nausea, or vomiting.<br><br>See Section 11: Toxicological Information for additional information. |
| <b>Environmental Effects</b> | None identified.<br>See Section 12: Ecological Information for additional information.  |

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### 3. Composition / Information on Ingredients

| Chemical Name            | Synonyms | % Composition | CAS Number |
|--------------------------|----------|---------------|------------|
| Sodium citrate dihydrate | N/A      | <0.3%         | 6132-04-03 |
| Citric acid              | N/A      | <0.3%         | 77-92-9    |

Note: It has been determined that the remaining ingredients of this product are not classified as hazardous according to the Federal OSHA Hazardous Communication Standard (29 CFR 1910.1200) or the Globally Harmonized System of Classification and Labeling of Chemicals.

### 4. First Aid Measures

**General Advice** Avoid further exposure to product. Consult a physician.

**In case of skin contact** Wash exposed area with soap and plenty of water. Remove any contaminated clothing. Seek medical attention.

**In case of eye contact** Wash eyes with plenty of water for at least 15 minutes. Have victim remove contact lenses. Be sure to wash under eyelids. Seek medical attention.

**If inhaled** Remove victim to well-ventilated area. If victim is not breathing, give artificial respiration. Seek medical attention.

**If swallowed** If victim is conscious, rinse mouth with water. Do not give anything to an unconscious victim. Seek medical attention.

### 5. Fire Fighting Measures

**Suitable Extinguishing Media** Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Use extinguisher media appropriate for surrounding fire.

**Special Protective Equipment for Firefighters** Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

**Special Exposure Hazards** Avoid inhalation of fumes, which may be toxic or irritating.

### 6. Accidental Release Measures

**Personal Precautions** Use of personal protective equipment is recommended as described in Section 8. Isolate hazard area and deny entry to unprotected personnel.

**Environmental Precautions** Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways.

**Methods for containment and clean up** Small spills may be contained and cleaned-up with paper towels or absorbent pads. Absorb large spills with sand or vermiculite and place in a closed container for waste disposal. Avoid physical contact during removal.

### 7. Handling and Storage

**Precautions for Safe Handling** Avoid contact with eyes, skin and clothing. Do not ingest. Wash hands thoroughly after use.

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**Conditions for Safe Storage** Keep container tightly closed. Store container at room temperature, in a well-ventilated area.

### 8. Exposure Controls / Personal Protection

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**Permissible Exposure Limits** Contains no substances with occupational exposure limit values.

**Engineering Controls** No special controls needed.

#### Personal Protective Equipment

**Eye Protection** Wear chemical splash goggles or a face shield when eye and face contact is possible due to splashing or spraying of material.

**Skin Protection** Use chemically resistant gloves and a lab coat with sleeves.

**Respiratory Protection** Exceeding exposure limits is unlikely during normal usage. However, if irritating vapors are produced, respiratory protection is recommended. Attempt to reduce exposure levels to an acceptable range.

**General Hygiene Measures** Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling and before eating or drinking.

### 9. Physical and Chemical Properties

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**Appearance** Clear, colorless solution

**Odor** None

**pH (as supplied)** 6.0

**Melting point** Not determined

**Boiling point** Not determined

**Flash point** Not determined

**Flammability** Not determined

**Lower explosion limit** Not determined

**Upper explosion limit** Not determined

**Vapor pressure** Not determined

**Vapor density** Not determined

**Specific gravity** Not determined

**Solubility (in water)** Soluble

**Partition coefficient (n-octanol/water)** Not determined

**Auto-ignition temperature** Not determined

**Decomposition Temperature** Not determined

### 10. Stability and Reactivity

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**Chemical Stability** Stable under recommended storage conditions (see Section 7).

**Conditions to avoid** None identified.

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|   |   |
|---|---|
| <b>Materials to avoid</b>                 | Strong oxidizers, reducing agents, acid chlorides, alkali metals.                               |
| <b>Hazardous decomposition products</b>   | Hazardous decomposition products formed under fire conditions: carbon monoxide, carbon dioxide. |
| <b>Possibility of hazardous reactions</b> | None identified.  |

### 11. Toxicological Information

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|   |  |
|---|--|
| <b>Acute dose effects</b>                 | Citric acid: LD50, oral, rat – 5400 mg/kg; LD50, dermal, rat – >2000 mg/kg   |
| <b>Repeat dose effects</b>                | No data available  |
| <b>Skin irritation</b>                    | Citric acid: Skin - rabbit - Mild skin irritation  |
| <b>Skin and respiratory sensitization</b> | Citric acid: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.   |
| <b>Eye irritation</b>                     | Citric acid: Eyes - rabbit - Irritating to eyes.   |
| <b>Carcinogenicity</b>                    | No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, potential, known, anticipated, or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA. |
| <b>Mutagenicity</b>                       | No data available  |
| <b>Reproductive effects</b>               | No data available  |
| <b>Developmental effects</b>              | No data available  |
| <b>Target organ effects</b>               | No data available  |

*To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated at product concentrations.*

### 12. Ecological Information

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|--|--|
| <b>Ecotoxicity</b>                     | Citric acid: mortality LC50 - Leuciscus idus melanotus - 440 mg/l - 48 h     |
| <b>Persistence and degradability</b>   | This product is expected to be readily biodegradable.                        |
| <b>Bioaccumulation/accumulation</b>    | This product does not contain any substances expected to be bioaccumulating. |
| <b>Mobility in environmental media</b> | This product is soluble in water.  |
| <b>Other hazardous effects</b>         | No data available  |

### 13. Disposal Considerations

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|                               |   |
|-------------------------------|---|
| <b>Product</b>                | Disposal should be in accordance with applicable national, state, and local laws and regulations. Local regulations may be more stringent than national or state requirements. Verify local and state regulations before discharging into public sewers or landfills. Do not dump into any body of water. Contact a licensed professional waste disposal service for appropriate methods of disposal. |
| <b>Contaminated packaging</b> | Dispose of as unused product.   |

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### 14. Transportation Information

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|                              |                |
|------------------------------|----------------|
| <b>Proper shipping name</b>  | Not applicable |
| <b>Technical name</b>        | Not applicable |
| <b>Hazard class</b>          | Not applicable |
| <b>Identification number</b> | Not applicable |
| <b>Packing group</b>         | Not applicable |
| <b>DOT (US)</b>              | Not regulated  |
| <b>IMDG</b>                  | Not regulated  |
| <b>IATA</b>                  | Not regulated  |
| <b>TDG</b>                   | Not regulated  |

### 15. Regulatory Information

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#### Inventory Status

|                                       |  |
|---------------------------------------|--|
| <b>United States (TSCA)</b>           | All ingredients are on the inventory or exempt from listing.   |
| <b>Canada (DSL / NDSL)</b>            | All ingredients are on the inventory or exempt from listing.   |
| <b>SARA 302 Components</b>            | No chemicals in this product are subject to reporting requirements.  |
| <b>SARA 313 Components</b>            | No chemicals in this product are subject to reporting requirements.  |
| <b>SARA 311/312 Hazards</b>           | Citric acid: Acute Health Hazard   |
| <b>California Prop. 65 components</b> | This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm. |

### 16. Other Information

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|                                |   |
|--------------------------------|---|
| <b>Sources and Suitability</b> | The above information was obtained from sources available at the time of revision and believed to be accurate and reliable. The information included is not intended to be all inclusive and should only be used as a guide. Biocare shall not be held liable for any damage resulting from use, handling, or contact with the above product. |
| <b>Revision Date</b>           | January 22, 2018<br>(All SDS's before this date should be discarded.)   |
| <b>Replaces Revision</b>       | June 16, 2015. This SDS has been updated to reflect current hazard information and product formulations.<br><b>Note: Before using this product, please visit the Biocare Medical website at <a href="http://biocare.net">http://biocare.net</a> for the current version of this SDS.</b>  |