MATERIAL SAFETY DATA SHEET

Research Use Only FerroSelect™ Streptavidin Ferrofluid

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1. IDENTIFICATION OF SUBSTANCE AND COMPANY

Product Name: FerroSelect™ Streptavidin Ferrofluid (SA-FF)

Product Details: Applicable to all FerroSelect™ Streptavidin Ferrofluid

Applicable Product SKUs: 12-0001, 12-0002, 12-0003

Recommended Use: For RESEARCH USE ONLY Immunomagnetic Cell Separations. Not for use in Diagnostic Procedures. For *ex vivo* use only.

Restrictions on Use: Not intended for human or animal therapeutic or diagnostic uses.

Manufacturer/Supplier:

BioMagnetic Solutions LLC

3058 Research Drive

State College, PA 16801 USA

Emergency Contact Information: 1-833-424-6624

Website: www.biomagneticsolutions.com

2. HAZARDS IDENTIFICATION

GSH Classification: Not a hazardous substance or mixture.

GSH Label Elements: Not a hazardous substance or mixture.

Other Hazards: None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name: Streptavidin Ferrofluid

Synonym: SA-FF

Substance/Mixture: Substance

Chemical Nature: Liquid

Concentration: The concentration is listed on the individual vial (dependent on substance product number)

Derived From: Ferrous and ferric iron particles coated with recombinant human serum albumin and streptavidin

Hazardous Ingredients: None known. The exact composition has been withheld as a trade secret.

Animal Origen Statement: The product is manufactured in the USA entirely from material of non-animal origin. The manufacture, packaging, storage, and transportation of these materials do not involve the use of material of animal

origin. This information is to be used for the purpose of determining animal origin only and not to be confused with 'country of origin' for import/export purposes.

4. FIRST AID MEASURES

After Inhalation: Supply fresh air.

After Eye Contact: Flush opened eyes thoroughly with water for at least 15 minutes. Remove gloves, wash hands and remove contact lenses. Separate the eyelids with fingers to assist in flushing. Consult a physician if irritation persists.

After Skin Contact: Flush the affected area with a copious amount of water for at least 15 minutes. Remove any contaminated clothing and wash before wearing again. If the skin is broken or there is sign of irritation, consult a physician.

After Ingestion: Rinse mouth with water. Consult a physician if signs of discomfort.

Most Important Symptoms and Effects, both Acute and Delayed: No Information Available

Recommendations for Immediate Medical Care and Special Treatment: No Information Available. Conditions should be treated symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Agents: Use water spray or extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: No information available.

Special Hazards arising from the Substance: No information available.

Special Protective Equipment for Firefighters: Wear self-contained breathing apparatus and full protective clothing for firefighting, if necessary.

6. ACCIDENTAL SPILL/RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Ensure adequate ventilation. Use standard laboratory practices and wear appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing. Wash hands after cleanup.

Environmental Precautions: Keep away from drains.

Methods and Materials for Containment and Cleaning Up: Soak up with inert absorbent material and dispose of as per Section 13. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with skin and eyes. Practice good laboratory hygiene and follow laboratory safety practices. Wash hands with soap and water after handling the material. All procedures involving this material must be done in ways to minimize splashing, splattering, and generation of droplets of the material. To avoid thermal decomposition, do not overheat.

Conditions for Safe Storage, including any Incompatibilities: Keep container tightly closed to prevent leakage. Refer to the product datasheet for temperature requirements

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: Contains no substance with occupational exposure limits.

Appropriate Engineering Controls: Ensure adequate ventilation, eyewash stations, and safety showers. Change contaminated clothing. Wash hands after working with the reagent.

Personal Protective Measures:

Eye/Face Protection – Either goggles or glasses with solid side shields should be worn whenever eye contamination can be reasonably anticipated.

Skin/Body Protection – Handle with disposable gloves. Replace as soon as possible whenever contamination occurs.

Respiratory Protection – No special protective equipment is needed under normal use conditions with adequate ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State/Appearance: Brown Liquid

Odor: Little to none

Odor Threshold: No information available

pH: Resuspended in 0.3% recombinant human serum albumin (HSA) buffered to pH 7.1-7.3

Melting Point/Freezing Point: No data available

Boiling Point/Boiling Range: No data available

Flash Point: No data available

Evaporation Rate: No data available

Flammability: No data available

Upper/Lower Flammability or Explosive Limits: No data available

Vapor Pressure: No data available

Vapor Density: No data available

Relative Density: No data available

Water Solubility: Soluble in water

Partition Coefficient: n-octanol/water: No data available

Autoignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

Explosive Properties: No information available

Oxidizing Properties: No information available

10. STABILITY AND REACTIVITY

Reactivity: Particles bind to material coated with biotin.

Reactive Hazard: None known

Chemical Stability: See CoA for stability information.

Possibility of Hazardous Reactions: None known.

Conditions to Avoid: See product documentation for storage conditions.

Incompatible Materials: None known.

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure and Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

Inhalation: No data available.

Eye Contact: No data available.

Skin Contact: No data available.

Ingestion: No data available.

Numerical Measures of Toxicity:

Acute Toxicity: No data available

Delayed and Immediate Effects as well as Chronic Effects from Short- and Long-Term Exposure:

Skin Corrosion/Irritation: No data available

Serious Eye Damage / Eye Irritation: No data available

Respiratory or Skin Sensitization: No data available

Germ Cell Mutagenicity: No data available

Carcinogenicity: No data available

Reproductive Toxicity: No data available

Specific Target Organ Toxicity (STOT), Single Exposure: No data available

Specific Target Organ Toxicity (STOT), Repeated Exposure: No data available

Aspiration Hazard: No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATIONS

Disposal Methods: Dispose of in accordance with local, regional, or national regulations.

Contaminated Packaging: Do not reuse empty containers. Dispose of in the same manner as unused product.

14. TRANSPORT INFORMATION

Non-hazardous for road air or shipping freight. Instructions for shipping by the company should be followed.

ADR/ADN/IMDG/IATA/DOT: Not applicable

ICAO (air): Not applicable

15. OTHER INFORMATION

Disclaimer: The information contained herein is correct to the best of our knowledge, at the date of publication. The information shall be used only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release. The information shall not be considered a warranty or quality specification. The information relates only to the specified material and may not be valid if used in combination with any other materials or processes. The supplier does not assume any liability whatsoever for the accuracy or completeness of the information contained herein or for any damage resulting from handling or contact with the product.