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cuserv@jacksonimmuno.com
www.jacksonimmuno.com
Product Code: 313-545-047

**GHS SAFETY DATA SHEET**

## SECTION 1. IDENTIFICATION

***1.1 GHS Product Identifier:***

**Product Name:** Alexa Fluor® 488-conjugated AffiniPure™ Rabbit Anti-Sheep†† IgG, F(ab')$_2$ Fragment Specific (minimal cross-reaction to Human Serum Proteins)

***Other means of identification:***

**Product code #: 313-545-047**

***1.2 Recommended use of the mixture and restrictions on use:***

For *in vitro* research use only. Not for diagnostic or therapeutic use. This is not a medical device. Contact supplier for specific applications.

***1.3 Supplier's details:***

**Manufacturer**
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**European Contact**
Jackson ImmunoResearch Europe LTD
Cambridge House
St. Thomas' Place
Ely, Cambridgeshire CB7 4EX, UK
T: +44 (0) 1635 664675
F: +44 (0) 1638 668462
info@jacksonimmuno.com; help@jacksonimmuno.com
www.jacksonimmuno.com

E-mail address of the person responsible for this SDS: tech@jacksonimmuno.com

***1.4 Emergency phone number:***

610-869-4024 (USA)

## SECTION 2. HAZARD IDENTIFICATION

***2.1 Classification: GHS UNITED STATES***

***Mixture, GHS category not classified***

***2.2 GHS USA label elements, including precautionary statements:***

**GHS Symbol:** N/A

**GHS Signal word:** N/A

**GHS Hazard statement:** May be harmful if swallowed

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**GHS Precautionary statement:** If swallowed call a poison center/doctor/physician if you feel unwell.

***2.3 Adverse Human Health:*** Mixture may be irritating to the mucous membranes and upper respiratory tract.

***Effects and Symptoms:*** May be harmful by inhalation, ingestion, or skin adsorption. May cause eye, skin, or respiratory system irritation. To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

***Substance/mixture:*** USA GHS, category 5 Hazardous mixture

| Chemical Name | RTECS# | CAS# | EC# | % (w/w) |
|---|---|---|---|---|
| Sodium Azide | VY8050000 | 26628-22-8 | 247-852-1 | 0.54 |
| Sodium Phosphate | WC4500000 | 7558-79-4 | 231-448-7 | 1.51 |
| Alexa Fluor® 488-conjugated AffiniPure™ Rabbit Anti-Sheep†† IgG, F(ab')$_2$ Fragment Specific (minimal cross-reaction to Human Serum Proteins) | N/A | N/A | N/A | 1.58 |
| Sodium Chloride | V24725000 | 7647-14-5 | 231-598-3 | 15.7 |
| Bovine Serum Albumin | N/A | N/A | N/A | 16.13 |
| Non-Hazardous, Proprietary Ingredient | N/A | N/A | N/A | 64.54 |

N/A means not applicable or proprietary information. The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29CFR1910.1200].

Due to rounding, percentages of individual components may not add up to 100%.

## SECTION 4. FIRST-AID MEASURES

***4.1 Description of First Aid Measures:***

***Inhalation:***
Remove person to fresh air. If inflammation occurs, get medical attention.

***Skin contact:***
Basic hygiene should prevent any problems. If contact with this product leads to reddening, inflammation, or irritation, flush exposed area with running water and get medical attention.

***Eye Contact:***
If this product enters the eyes, flush the eyes with gently running water for at least 15 minutes. If inflammation occurs, get medical attention.

***Ingestion:***
Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. No special precautions are taken to remove or detect the presence of endotoxin or pyrogens. If fever or adverse effects are experienced, get medical attention.

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## SECTION 5. FIRE-FIGHTING MEASURES

***5.1 Suitable extinguishing media:*** Use an extinguishing agent suitable for the surrounding fire.

***5.2 Unsuitable extinguishing media:*** None are known.

***Conditions of flammability:*** Not flammable or combustible.

***Specific hazards in case of fire:*** None are known.

***5.3 Special protective equipment and precautions for fire fighters:*** For fires in enclosed areas, wear a self-contained breathing apparatus. Do not inhale combustion gases.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

***6.1 Personal precautions:***
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. For emergency responders, wear respiratory protection.

***6.2 Environmental precautions:***
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

***6.3 Methods and materials for containment and cleaning up:***
**Small spill:** Stop leak if without risk. Move containers from spill area. Dilute with water and mop up. Alternatively, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
**Large spill:** Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material, e.g. sand, earth, vermiculite, or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor.

## SECTION 7. HANDLING AND STORAGE

The information in this section contains generic advice and guidelines. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

***7.1 Precautions for safe handling:***
Do not eat, drink, or smoke when using this product. Avoid contact with skin and eyes. Wash hands thoroughly after handling.

***7.2 Conditions for safe storage, including any incompatibilities:***
Store at 2-8°C. When ready to use, rehydrate with $dH_2O$ and centrifuge if not clear. Product is stable for about 6 weeks at 2-8°C as an undiluted liquid. Prepare working dilution fresh each day. For extended storage after rehydration, aliquot and freeze at -70°C or below. Avoid repeated freezing and thawing. Alternatively, add an equal volume of glycerol (ACS grade or better) for a final glycerol concentration of 50%, and store at -20°C as a liquid. Note: adding glycerol reduces the stated protein concentration and dilution range by one-half. Store in original container away from incompatible materials and from

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food and drink. Do not store in an unlabeled container. Use appropriate containment to avoid environmental contamination. Consult Product Specification sheets for additional storage information.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

***8.1 Control parameters:***
This product or any of its ingredients have no listed OSHA PEL, NIOSH REL, or ACGIH Threshold Limit Values (TLV).

**Sodium azide (26628-22-8)**

| | | |
|---|---|---|
| USA ACGIH | ACGIH Ceiling (mg/m³) | 0.29 mg/m³ |
| USA ACGIH | ACGIH Ceiling (ppm) | 0.11 ppm (vapor) |
| USA ACGIH | ACGIH chemical category | Not Classifiable as a Human Carcinogen |
| USA NIOSH | NIOSH REL (ceiling) (mg/m³) | 0.3 mg/m³ |
| USA NIOSH | NIOSH REL (ceiling) (ppm) | 0.1 ppm |

***8.2.1 Appropriate engineering controls:***
No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure below any recommended or statutory limits.

***8.2.2 Individual protection measures, such as personal Protective Equipment:***

**Respiratory protection:** Use a properly-fitted, air-purifying, or air-fed respirator complying with an approved standard if a risk assessment indicates this is a necessity. Respirator selection must be on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hygiene measures:** Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, using the lavatory, and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure the eyewash station and safety showers are close to the workstation location.

**Eye/face protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or dusts.

**Skin and body protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Hand protection:** Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Skin and body protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

***9.1 Information on basic physical and chemical properties:***

**Appearance:** Neon Green solid

**Odor:** Odorless, as water
**Odor threshold:** Not available
**pH:** 7.6 when rehydrated with indicated volume of $H_2O$
**Melting point/freezing point:** Data is not available
**Initial boiling point and boiling range:** Data is not available
**Flash point:** Data is not available
**Evaporation rate:** Data is not available
**Flammability:** Data is not available
**Burning time:** Data is not available
**Burning rate:** Data is not available
**Upper/lower flammability or explosive limits:** Data is not available
**Vapor pressure:** Data is not available
**Vapor density:** Data is not available
**Relative density:** Data is not available
**Solubility(ies):** Soluble in warm and cold water
**Partition coefficient:** n-octanol/water
**Auto-ignition temperature:** Data is not available
**Decomposition temperature:** Data is not available
**Viscosity:** Data is not available
**Explosive properties:** Data is not available
**Oxidizing properties:** Data is not available

***9.2 Other information:*** No additional information

## SECTION 10. STABILITY AND REACTIVITY

**10.1 Reactivity:** No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability:** The product is chemically stable.

**10.3 Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid:** No specific data.

**10.5 Incompatible materials:** No specific data.

**10.6 Hazardous decomposition products:** Under normal conditions of storage and use, hazardous decomposition products will not be produced.

## SECTION 11. TOXICOLOGICAL INFORMATION

***11.1 Information on toxicological effects: RTECS#: VY8050000; CAS# 26628-22-8; EC# 247-852-1***

**Acute toxicity:**

**Sodium Azide:** Oral Rat, LD50, 27 mg/kg

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**Sodium Chloride:** Oral Rat, LD50, 3,000 mg/kg
**Sodium Phosphate:** Oral Rat, LD50, 17,000 mg/kg
**Antibody/Serum Protein:** Not established
**Skin Corrosion/Irritation:** Conclusion/Summary: Not available
**Serious Eye Damage/Irritation:** No known significant effects or critical hazards.
**Respiratory or skin irritation:** No known significant effects or critical hazards.
**Germ Cell Mutagenicity:** Conclusion/Summary: Not available
**Carcinogenicity:**
**IARC:** No component of this product is present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by IARC.
**NTP:** No component of this product is present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
**OSHA:** No component of this product is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
**Reproductive toxicity:** Conclusion/Summary: Not available.
**STOT - single exposure:** No data available.
**STOT - repeated exposure:** No data available.
**Aspiration hazard:** No data available.
**Information on the likely routes of exposure:** Routes of entry anticipated: Oral, Dermal, and Inhalation.
**Potential acute health effects:**
**Inhalation:** No known significant effects or critical hazards.
**Ingestion:** No known significant effects or critical hazards.
**Skin contact:** No known significant effects or critical hazards.
**Eye contact:** No known significant effects or critical hazards.
**Symptoms related to the physical, chemical, and toxicological characteristics**
**Inhalation:** No specific data
**Ingestion:** No specific data
**Skin contact:** No specific data
**Eye Contact:** No specific data
**Delayed, immediate, and chronic effects from short-and long-term exposure**
**Short-term exposure:** Not available
**Potential immediate effects:** Not available
**Potential delayed effects:** Not available
**Long-term effects:** Not available
**Potential immediate effects:** Not available
**Potential delayed effects:** Not available
**Potential chronic health effects:**
**Conclusion/Summary:** Not available
**General:** No known significant effects or critical hazards.
**Carcinogenicity:** No known significant effects or critical hazards.
**Mutagenicity:** No known significant effects or critical hazards.
**Teratogenicity:** No known significant effects or critical hazards.
**Developmental effects:** No known significant effects or critical hazards.
**Fertility effects:** No known significant effects or critical hazards.
**Other Information:** Not available

## SECTION 12. ECOLOGICAL INFORMATION

***12.1 Ecotoxicity:*** Avoid release into environment. Runoff from fire control or dilution water may cause pollution.

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**12.2 Persistence and degradability**
**Conclusion/Summary:** Not available

**12.3 Bioaccumulative potential:** Not available

**12.4 Mobility in soil:** Not available
**Soil/water partition coefficient:** Not available
**Mobility:** Not available

**12.5 Results of PBT and vPvB assessment:**
**PBT:** Not applicable
**vPvB:** Not applicable

**12.6 Other adverse effects:** No known significant effects or critical hazards.

## SECTION 13. DISPOSAL CONSIDERATIONS

***13.1 Disposal methods:***

**Product:** Dispose of contents/containers in accordance with local/regional/national/international regulations. The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Uncontaminated waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

**Contaminated packaging:** The generation of waste should be avoided or minimized whenever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

## SECTION 14. TRANSPORTATION INFORMATION

**14.1**

| | ADR/RID | ADN/ADNR | IMDG | IATA |
|---|---|---|---|---|
| UN Number | Not regulated for transport | Not regulated for transport | Not regulated for transport | Not regulated for transport |
| UN proper shipping name | Not regulated for transport | Not regulated for transport | - | - |
| Transport hazard class(es) | Not regulated for transport | Not regulated for transport | - | - |
| Packing group | - | - | - | - |
| Environmental hazards | No | No | No | No |
| Special precaution for user | Not regulated for transport | Not regulated for transport | Not regulated for transport | Not regulated for transport |

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**14.2 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not available

**SECTION 15. REGULATORY INFORMATION**
Azide YES United States

***15.3 National regulations:*** Data not available

**United States of America GHS**

**15.4 SARA Reporting Requirements:** This product is not subject to Section 302, 304, and 313 reporting requirements under the Superfund Amendment and Reauthorization Act.

**Chemical SARA 302, SARA 304, and SARA 313**
**SARA Threshold Planning Quantity:** N/A
**TSCA Inventory Status:** N/A
**CERCLA Reporting Quantity (RQ):** N/A
**Other Federal Regulations:** N/A

**SECTION 16: OTHER INFORMATION**

*Abbreviations and acronyms:*
ATE = Acute Toxicity Estimate
CLP = Classification, Labelling, and Packaging [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP specific Hazard Statement
PNEC - Predicted No Effect Concentration
RRN = REACH Registration Number

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]: Not classified

Literature used in preparation of this GHS/SDS: Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Fourth Revised Edition, United Nations, New York and Geneva, 2011

Full text abbreviation H Statements: Not applicable
Full text of classifications [CLP/GHS]: Not applicable
Full text of abbreviated R phrases: Not applicable
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