



Version: 1.0 | Revision Date: September 2026 | Supersedes: N/A

SECTION 1: Product & Company Information

- **1.1 Product Identifier:**
 - **Product Name:** Purified Antibodies, Proteins and their Conjugates
 - **Product Form:** Mixture / Aqueous Buffer Solution or Lyophilized Powder
 - **Catalog Numbers:** Multiple
- **1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:**
 - **Identified Uses:** For Research Use Only (RUO). Laboratory chemical for biological research and assay development. Not for human diagnostic or therapeutic use.
 - **Uses Advised Against:** For R&D use only. Not for human, clinical, therapeutic, household, or pharmaceutical use.
- **1.3 Company**
 - Leinco Technologies, Inc.
 - 410 Axminister Drive, St. Louis, Missouri 63026, USA
 - **Phone:** (636) 230-9477 / (800) 538-1145
 - **Fax:** 636-527-5545
 - **Email:** leincoglobal@leinco.com
- **1.4 Emergency Telephone Number:**
 - Business Hours: (636) 230-9477
 - Chemtrec - 24 hrs/& Days/week 1-800-424-9300 **(USA)** +1-703-527-3887 **(International)**

SECTION 2: Hazards Identification

- **2.1 Classification of the Substance or Mixture:**
 - **US OSHA HazCom 2012 (29 CFR 1910.1200):** Not classified as hazardous.
 - **EU CLP (EC 1272/2008) & UK GB CLP:** Not classified as a hazardous mixture.
 - **UK REACH / EU REACH (EC 1907/2006):** Not classified.
- **2.2 Label Elements:**
 - **Hazard Pictograms:** None required.
 - **Signal Word:** None.
 - **Hazard Statements:** None required.
 - **Precautionary Statements:**
 - **Prevention:** Not applicable.
 - **Response:** Not applicable.
 - **Storage:** Not applicable.
 - **Disposal:** Not applicable.
- **2.3 Other Hazards:**
 - **PBT and vPvB Assessment:** Does not contain any PBT or vPvB substances at concentrations $\geq 0.1\%$.

- **Endocrine Disrupting Properties:** Contains no known endocrine disruptors according to UK/EU REACH or GB CLP criteria (concentration $\geq 0.1\%$).

SECTION 3: Composition / Information on Ingredients

- **3.1 Substances:** Mixture
- **3.2 Formulation:** Purified biological proteins (monoclonal/polyclonal/recombinant antibodies, conjugated antibodies, recombinant proteins) provided in aqueous buffer solutions (e.g., Phosphate Buffered Saline - PBS, Tris buffer, Borate buffer) with optional stabilizers and preservatives (e.g., glycerol $\leq 10\%$ v/v, sodium azide $\leq 0.1\%$ w/v) or lyophilized powder, optionally containing preservatives at non-hazardous concentrations. To the supplier's current knowledge, this product contains no hazardous ingredients or specific additives above reportable threshold limits or mandatory chemical identification requirements under OSHA HazCom or UK/EU REACH (EC 1907/2006).

SECTION 4: First Aid Measures

4.1 Description of First Aid Measures:

- **Inhalation:** Move person into fresh air and position comfortably for breathing. Seek medical attention if symptoms or respiratory discomfort occur.
- **Skin Contact:** Wash off with plenty of soap and water. Take off contaminated clothing. Seek medical attention if skin irritation occurs.
- **Eye Contact:** Flush eyes thoroughly with water for at least 15 minutes as a precaution. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.
- **Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Consult a physician if feeling unwell.

4.2 Most Important Symptoms and Effects: No known significant chemical, physical, or toxicological effects or critical hazards. Direct skin or eye exposure may cause mild transient irritation in sensitive individuals.

4.3 Immediate Medical Attention: Treat symptomatically. Contact poison control specialist if large quantities have been ingested or inhaled.

SECTION 5: Firefighting Measures

- **5.1 Extinguishing Media:** Use extinguishing media appropriate to surrounding fire conditions.
- **5.2 Unsuitable Extinguishing Media:** High-volume water jets.
- **5.3 Special Hazards:** Thermal decomposition can release irritating gases and vapors (carbon oxides, nitrogen oxides, phosphorus oxides, sodium oxides, borate oxides).
- **5.4 Advice for Firefighters:** Wear self-contained breathing apparatus (SCBA) operating in positive pressure mode and full protective gear for firefighting to prevent contact with skin and eyes.

SECTION 6: Accidental Release Measures

- **6.1 Personal Precautions:** Exercise appropriate precautions to minimize direct contact with skin, eyes, or clothing. Avoid breathing vapors, mists, or dust. Ensure adequate ventilation. Wear personal protective equipment as described in Section 8.
 - **6.2 Environmental Precautions:** Prevent further spillage or leakage if safe to do so. Prevent product from entering drains, surface water, or groundwater.
 - **6.3 Methods for Cleaning Up:** Soak up liquid spills with inert absorbent material (e.g., sand, silica gel, universal binder). For solid/lyophilized form, sweep or vacuum cleanly while avoiding dust generation. Place in suitable, closed containers for disposal according to local regulations. Decontaminate spill area with a 10% bleach solution or standard disinfectant.
 - **6.4 Reference to Other Sections:** Refer to Section 8 for exposure controls and Section 13 for waste disposal.
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SECTION 7: Handling and Storage

- **7.1 Handling:** Avoid direct contact with eyes, skin, and clothing. Avoid breathing vapors, mists, or generated dust. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Wash hands thoroughly with soap and water after handling.
 - **7.2 Storage:** Keep in original container, tightly closed in a dry, cool, and well-ventilated place. Store at recommended storage temperatures (typically liquid formulations at 2–8°C; frozen/long-term storage at -20°C or -80°C; lyophilized products stored per product vial label). Keep separated from incompatible substances.
 - **7.3 Specific End Use:** Research and laboratory applications only.
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SECTION 8: Exposure Controls / Personal Protection

- **8.1 Control Parameters:** Contains no substances with occupational exposure limit values (OSHA PELs, ACGIH TLVs, or UK EH40 WELs) above reportable thresholds.
 - **8.2 Engineering Controls:** General laboratory ventilation is sufficient under normal conditions. Handle in a biosafety cabinet or chemical fume hood if aerosols or mists are generated.
 - **Environmental Exposure Controls:** Prevent product from entering drains or watercourses.
 - **Personal Protective Equipment (PPE):**
 - **Eye/Face Protection:** Safety glasses with side-shields conforming to EN166, NIOSH, or OSHA 29 CFR 1910.133.
 - **Hand/Skin Protection:** Chemical-resistant impervious gloves (Nitrile, Neoprene, or Latex) complying with EN 374 / OSHA guidelines. Standard laboratory coat.
 - **Respiratory Protection:** Not required under normal laboratory use.
 - **Hygiene Measures:** Wash hands, forearms, and face thoroughly after handling biological/chemical products, before eating, smoking, and using the lavatory.
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SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties:

- **Physical State:** Liquid (aqueous solution) or Solid (lyophilized powder)
- **Color:** Clear to light yellow (aqueous solution); Off-white to white (lyophilized powder); Conjugate dependent (e.g., FITC exhibits a yellowish-green tint)
- **Odor:** Odorless
- **Odor Threshold:** No data available

- **pH:** 6.0 – 8.2 (Formulation specific, e.g., PBS, Tris, or Borate buffer)
- **Melting Point / Freezing Point:** ~ 0°C (32°F) (Liquid solution)
- **Initial Boiling Point and Boiling Range:** ~ 100°C (212°F) (Liquid solution)
- **Flash Point:** Not applicable / Non-flammable
- **Evaporation Rate:** No data available
- **Flammability (solid, gas):** Non-flammable
- **Upper / Lower Flammability or Explosive Limits:** Not applicable
- **Vapor Pressure:** No data available
- **Vapor Density:** No data available
- **Relative Density:** ~ 1.0 g/cm³
- **Solubility(ies):** Aqueous / Fully miscible in water
- **Partition Coefficient (n-octanol/water):** No data available
- **Auto-ignition Temperature:** Product is not self-igniting
- **Decomposition Temperature:** No data available
- **Viscosity (Kinematic & Dynamic):** No data available
- **Explosive Properties:** None known
- **Oxidizing Properties:** Non-oxidizing
- **Particle Characteristics:** Not applicable for liquid solution; fine powder when lyophilized

9.2 Other Information

- **9.2.1 Information with regard to physical hazard classes:** Not applicable (non-hazardous mixture)
- **9.2.2 Other safety characteristics / VOC Content:** 0% (No volatile organic compounds)

SECTION 10: Stability and Reactivity

- **10.1 Reactivity:** Non-reactive under normal handling and storage conditions.
 - **10.2 Chemical Stability:** Stable under recommended storage conditions.
 - **10.3 Possibility of Hazardous Reactions:** No dangerous reactions known under conditions of normal use.
 - **10.4 Conditions to Avoid:** High temperatures, repeated freeze-thaw cycles (can denature biological protein).
 - **10.5 Incompatible Materials:** None known.
 - **10.6 Hazardous Decomposition Products:** Nature of decomposition of products not known.
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SECTION 11: Toxicological Information

11.1 Information on Hazard Classes as Defined in OSHA HazCom / GB CLP / EU CLP

- **Acute Toxicity:** Not classified based on available data. Components (including Sodium Azide < 0.1%) are below toxicological classification thresholds.
- **Skin Corrosion/Irritation:** Not classified (pH range 6.0 – 8.2; non-corrosive and non-irritating).
- **Serious Eye Damage/Irritation:** Not classified. Direct exposure may cause mild transient mechanical irritation.
- **Respiratory or Skin Sensitization:** Not classified.

- **Germ Cell Mutagenicity:** Not classified.
- **Carcinogenicity:** None of the components present at levels $\geq 0.1\%$ are identified as probable, possible, or confirmed human carcinogens by IARC, NTP, OSHA, ACGIH, or UK HSE.
- **Reproductive Toxicity:** Not classified.
- **STOT - Single Exposure:** Not classified.
- **STOT - Repeated Exposure:** Not classified.
- **Aspiration Hazard:** Not classified.
- **11.2 Information on Other Hazards (UK REACH / EU criteria):**
 - **Endocrine Disrupting Properties:** Does not contain any component assessed to have endocrine-disrupting properties on human health at concentrations $\geq 0.1\%$ (w/w).

SECTION 12: Ecological Information

- **12.1 Ecotoxicity:** The product is not classified as environmentally hazardous. Sodium azide present at $< 0.1\%$ is below ecotoxicological classification thresholds for the mixture.
- **12.2 Persistence and Degradability:** Biological materials (proteins and antibodies) are biodegradable. Inorganic buffer components are not subject to biodegradation.
- **12.3 Bioaccumulative Potential:** Bioaccumulation potential is low.
- **12.4 Mobility in Soil:** Aqueous solutions are highly mobile in soil.
- **12.5 PBT and vPvB Assessment:** This mixture contains no components considered persistent, bioaccumulative, or toxic (PBT) or very persistent and very bioaccumulative (vPvB) at concentrations $\geq 0.1\%$.
- **12.6 Endocrine Disrupting Properties:** Does not contain any components with endocrine disrupting properties on non-target organisms ($\geq 0.1\%$).
- **12.7 Other Adverse Effects:** No known significant adverse environmental effects or critical hazards.

SECTION 13: Disposal Considerations

- **13.1 Waste Treatment Methods:**
 - **Product/Waste Disposal:** Dispose of in accordance with local, state, regional, and national regulations. Small quantities may be disposed of via sanitary sewer systems when flushed with large volumes of water to prevent azide buildup (where permitted by municipal regulations).
 - **UK / EU European Waste Code (EWC):** Suggested EWC code: 18 01 04 (wastes whose collection and disposal is not subject to special requirements in order to prevent infection) or 16 05 09 (discarded chemicals other than those mentioned in 16 05 06, 16 05 07, or 16 05 08).
 - **Contaminated Packaging:** Empty containers should be triple-rinsed and disposed of as non-hazardous waste or recycled in accordance with local authority requirements. Do not release untreated waste directly into public sewer systems or waterways.

SECTION 14: Transport Information

- **14.1 UN Number:** Not Regulated (Not classified as Dangerous Goods).
- **14.2 Transport Hazard Class(es):** US DOT / ADR / RID / IMDG / IATA: Non-dangerous goods.
- **14.3 Packing Group:** None.
- **14.4 Environmental Hazards:** Marine Pollutant: No.

- **14.5 Special Precautions for User: 14.6 Special Precautions for User:** Not classified as dangerous goods in the meaning of transport regulations.
- **14.6 Maritime Transport in Bulk According to IMO Instruments:** Not applicable.

SECTION 15: Regulatory Information

15.1 Safety, Health and Environmental Regulations Specific for the Substance or Mixture

- **US Federal Regulations:**
 - **OSHA HazCom 2012:** Standard 29 CFR 1910.1200 non-hazardous chemical mixture.
 - **TSCA (Toxic Substances Control Act):**
 - **Research & Development (R&D) Exemption:** This product is supplied solely for Research and Development (R&D) purposes by or under the direct supervision of a technically qualified individual, in accordance with TSCA section 5(h)(3).
 - **Inventory Listing:** The individual components of this product are either listed on the TSCA Chemical Substance Inventory or are exempt under 40 CFR § 720.36 for scientific research and assay development.
 - **Uses Advised Against:** This material is restricted strictly to R&D use and is not intended for commercial manufacturing, pharmaceutical, diagnostic, therapeutic, household, or other non-R&D uses
 - **SARA 302 / 313:** Sodium azide (CAS 26628-22-8) is subject to reporting only if threshold quantities are exceeded (not exceeded at < 0.1%).
- **European Union (EU) & United Kingdom (UK) Regulations:**
 - **EU CLP (EC 1272/2008) & UK GB CLP:** Not classified as hazardous.
 - **EU REACH / UK REACH (EC 1907/2006):** Contains no Substances of Very High Concern (SVHC) on Candidate or Authorization Lists at concentrations $\geq 0.1\%$ w/w.
- **15.2 Chemical Safety Assessment:** A Chemical Safety Assessment (CSA) has not been carried out for this mixture by the supplier.

SECTION 16: Other Information

- **16.1 Indication of Changes:**
 - **Version:** 7.0 (Consolidated SDS combining *SDS Purified Antibodies & Conjugates* (v7.0) and *SDS Recombinant Antibodies and Proteins* (v1.0) into a single unified SDS meeting OSHA HCS 2012, EU CLP, UK GB CLP, and REACH standard requirements).
- **16.2 Abbreviations and Acronyms:**
 - **CAS:** Chemical Abstracts Service
 - **EC:** European Community / European Inventory of Existing Chemical Substances
 - **GB CLP:** Great Britain Classification, Labelling and Packaging Regulation
 - **IATA:** International Air Transport Association
 - **IMDG:** International Maritime Dangerous Goods Code
 - **OSHA:** Occupational Safety and Health Administration
 - **PBT:** Persistent, Bioaccumulative and Toxic
 - **REACH:** Registration, Evaluation, Authorisation and Restriction of Chemicals
 - **vPvB:** Very Persistent and Very Bioaccumulative

- **16.3 Disclaimer:** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification.