MATERIAL SAFETY DATA SHEET

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Magnetic Beads

#S1425

SECTION 1 –PRODUCT INFORMATION

Product Name: Protein A

SECTION 2–CHEMICAL INFORMATION

				SARA 313
1.	Protein A		Cas. None	No
2.	PBS Solution		Cas. None	No
3.	Serum Albumin	0.1 %	Cas. #9048-46-8	No
4.	Sodium Azide	0.1%	Cas. #26628-22-8	Yes

SECTION 3–COMPOSITION/INFORMATION ON INGREDIENT

Harmful.
Harmful if swallowed.
Sodium azide may react with lead and copper plumbing to form highly explosive metal azides.

HMIS RATING
HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 1

NFPA RATING
HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 1

For additional information on toxicity, please refer to Section 11.

SECTION 4 –FIRST AID MEASURES

ORAL EXPOSURE: If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE: If inhaled, remove to fresh air. If breathing is difficult, call a physician.

DERMAL EXPOSURE: In case of skin contact, immediately wash skin with soap and copious amounts of water. Remove clothing and call a physician.

EYE EXPOSURE: In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SECTION 5–FIRE FIGHTING MEASURES

EXPLOSION HAZARDS
Azide reacts with many heavy metals such as lead, copper, mercury, silver, gold to form explosive compounds. Copper and lead azides are more sensitive than nitroglycerine. Azide reacts with metal halides to give a range of metal azide halides, many of which are explosive. Incompatible with chromyl chloride, hydrazine, bromine, carbon disulfide, dimethyl sulfate, dibromomalonitrile.

EXTINGUISHING MEDIA
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FLASH POINT
N/A

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Spilled material should be carefully wiped up or moistened with water and removed. Ventilate area and wash spill site after material pickup is complete.

SECTION 7 – HANDLING AND STORAGE

HANDLING
User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE
Suitable: Keep tightly closed.
Store at 2-8°C.

SECTION 8–EXPOSURE CONTROLS /PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment:

Respiratory
NIOSH/MSHA-approved respirator.

Hand:
Compatible chemical-resistant gloves.

Eye:
Compatible safety goggles.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling. Wash contaminated clothing before reuse.

SECTION 9– PHYSICAL AND CHEMICAL PROPERTIES

Appearance **Form: Suspension**

Property	Value	At Temperature or Pressure
Moledular Weight	N/A	
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	N/A	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	N/A	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

N/A = not available

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable
Materials to Avoid: Avoid contact with metals. Avoid contact with acid. Azide reacts with many heavy metals such as lead, copper, mercury, silver, gold to form explosive compounds. Copper and lead azides are more sensitive than nitroglycerine. Azide reacts with metal halides to give a range of metal azide halides, many of which are explosive. Incompatible with chromyl chloride, hydrazine, bromine, carbon disulfide, dimethyl sulfate, dibromomalonitrile., Halogenated solvents, Acid chlorides,

Dimethyl sulfate is incompatible with sodium azide

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Nature of decomposition product not known.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

SECTION 11–TOXICOLOGICAL INFORMATION

ROUTE OF EXPOSURE
Skin Contact: May cause skin irritation.
Skin Absorption: Harmful if absorbed through skin.
Eye Contact: May cause eye irritation.
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion: Harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE
Laboratory experiments in animals have shown sodium azide to produce a profound hypotensive effect, demyelination of myelinated nerve fibers in the central nervous system, testicular damage, blindness, attacks of rigidity, and hepatic and cerebral effects. Many azides cause a fall in blood pressure and some inhibit enzyme action.

SECTION 12–ECOLOGICAL INFORMATION

Data not yet available

SECTION 13–DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

SECTION 14– TRANSPORT INFORMATION

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport

IATA
Non-Hazdarous for Air Transport: Non-Hazdarous for Air transport.

SECTION 15– REGULATORY INFORMATION

EU ADDITIONAL CLASSIFICATION
Symbol of Danger: Xn
Indication of Danger: Harmful.

R: 22 Risk Statements: Harmful if swallowed.

US CLASSIFICATION AND LABEL TEXT
Indication of Danger: Harmful.
Risk Statements: Harmful if swallowed.
US Statements: Sodium azide may react with lead and copper plumbing to form highly explosive metal azides.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: No
NDSL: No

SECTION 16– OTHER INFORMATION

The above information is believed to be correct but does not purport to be allinclusive and shall be used only as a guide.

New England Biolabs shall not be held liable for any damage resulting from handling or from contact with the above product.