

SAFETY DATA SHEET (SDS)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: HRP-conjugated Streptavidin

Part NO.: SA00001-0

Chemical Name: Not applicable

REACH registration number: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Company/undertaking Identification:

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Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

Classification according to GHS United States: Not hazardous

Label elements according to GHS United States: No labelling applicable

Pictogram: None

Signal word: None

Hazard statements: None

Precautionary statements:

P264 – Wash hands thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 - IF ON SKIN: wash with plenty of water.

P332+P313 - IF SKIN irritation occurs: Get medical advice/attention.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

HRP-conjugated Streptavidin	~2.83%	Not Assigned
Sodium phosphate	~2.23%	7558-79-4
Sodium chloride	~23.26%	7647-14-5
Bovine Serum Albumin	~23.89%	Not Assigned

4. FIRST AID MEASURES:

Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms occur, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water for 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Go to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. Do not induce vomiting. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed:

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation : Prolonged exposure may cause irritation.

Symptoms/effects after skin contact : Prolonged exposure may cause skin irritation.

Symptoms/effects after eye contact : May cause slight irritation to eyes.

Symptoms/effects after ingestion : Ingestion may cause adverse effects.

Chronic symptoms : None expected under normal conditions of use.

Indication of immediate medical attention and special treatment needed:

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media:

Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Specific hazards arising from the chemical:

Fire hazard : Product is not flammable.

Explosion hazard : Product is not explosive.

Reactivity : Hazardous reactions will not occur under normal conditions.

Hazardous decomposition products in case of fire: Phosphorous oxides. Sodium oxides.

Hydrogen chloride gas.

Special protective actions for fire-fighters: Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.

Special protective equipment for fire-fighters: Do not enter fire area without proper protective equipment, including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures:

Avoid prolonged contact with eyes, skin, and clothing. Avoid breathing (vapor, mist, spray).

For emergency responders:

Protective equipment: Equip cleanup crew with proper protection. Emergency procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

Environmental precautions:

Prevent entry to sewers and public waters.

Methods and materials for containment and cleaning up:

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : **Clean up spills immediately and dispose of waste safely.**

Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

7. HANDLING AND STORAGE:

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work. Avoid prolonged contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities:

Technical measures : Comply with applicable regulations.

Storage conditions : Keep container closed when not in use. Store at 2-8°C (35°F - 46°F).

Keep/Store away from extremely high temperatures and incompatible materials.

Incompatible materials : Strong acids, strong bases, strong oxidizers.

Protective measures: Put on appropriate personal protective equipment (see Section 8)

Specific end use(s):

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

8. EXPOSURE CONTROLS/PPE:

Control parameters:

Occupational exposure limits: Not available

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

Individual protection measures:

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and 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 that eyewash stations 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, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:

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.

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.

Other skin 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.

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ 40°C: Solution

Color: clear to amber

Odor: Not available.

Odor threshold pH: Not available.

Melting point: Not available.

Boiling point: Not available.

Flash point: Not available.

Burning time: Not applicable.

Burning rate: Not applicable

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Lower and upper explosive (flammable) limits: Not available.

Vapor pressure: Not available.

Vapor density: Not available.

Relative density: Not available.

Solubility: Soluble in water or aqueous buffers.

Partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

SADT: Not available.

Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: No reaction under normal conditions

Chemical stability: Stable under normal conditions

Possibility of hazardous reactions: Will does not occur under normal conditions

Conditions to avoid: Extremely high temperatures and incompatible materials.

Incompatible materials: Strong acids, strong bases, strong oxidizers.

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

Thermal decomposition may produce: Phosphorus oxides. Sodium oxides. Hydrogen chloride gas.

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:

Acute toxicity:

Sodium Chloride: Oral Rat, LD50, 3,000 mg/kg

Sodium Phosphate: Oral Rat, LD50, 17,000 mg/kg

Irritation/Corrosion: Not available.

Sensitization: May cause sensitization of susceptible persons.

Mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Teratogenicity: Not available.

Specific target organ toxicity (single exposure): Not available.

Specific target organ toxicity (repeated exposure): Oral – May cause damage to kidneys through prolonged or repeated exposure

Aspiration hazard: Not available.

Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects:

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: May cause sensitization of susceptible persons.

Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data.

Delayed and immediate effects. Also 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 exposure: Not available.

Potential immediate effects: Not available.

Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: 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.

Numerical measures of toxicity

Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Not classified

13. DISPOSAL CONSIDERATIONS:

Dispose of contents/container in accordance with local, regional, national, and international regulations. Avoid release to the environment.

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.

14. TRANSPORT INFORMATION:

IATA / ADR / DOT-US / IMDG

Not classified as dangerous in the meaning of transport regulations

UN Number: Not applicable

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental Hazards: Not applicable

Special precautions for user: Not applicable

15. REGULATORY INFORMATION:

USA GHS

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

Labelling according to US Regulations: Caution: Avoid contact and inhalation.

US Regulatory information: SARA LISTED: No.

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

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS

Revision number: 0

Revision: 03/04/2022

The above information is believed to be correct but should only be used as a guide for experienced personnel. Proteintech Group Inc. will not be liable for any damage resulting from the handling of or from contact with the above product. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.