PRODUCT INFORMATION Strept. Avidin

Catalog Number: BA-001-5

Description: Pure Strept. Avidin

Lot Number:

Protein

5 mg pure Strept. Avidin / vial. Reconstitute with Buffer.

Concentration: (Based on OD 280)

Specificity:

One mole of Strept. Avidin (MW approx. 60,000) binds 4 moles of Biotin (MW 244.3). The Biotin-Avidin complex has a binding constant of 10^{15} .

Buffer:

0.01M Phosphate - 0.15M NaCl, pH 7.2-7.4.

Storage:

Store lyophilized powder refrigerated at 5 - 8°C or frozen. Store liquid frozen in aliquots. Avoid freeze-thaw cycles. Clarify by centrifugation.

Stability:

The lyophilized material is stable for several years when stored frozen. After reconstitution the material is stable for at least 1 year when stored frozen in aliquots with 0.05% sodium azide added as a preservative.

Caution:

Refer to the enclosed MSDS for information regarding Avidin. The aluminum seals have sharp edges and the vial itself may have cracks

which can cause lacerations. Use caution when opening the vial.

Remarks:

Strept. Avidin alone will denature at 85°C but is stable up to 132°C in the presence of Biotin. The binding is unaffected over a wide range of pH (2-13) and by chaotropic solvents such as guanidium chloride up to 3M.

References:

- 1. Chalet, L. and Wolf, F., Arch. Biochem. Biophys., 106, 1 (1964).
- 2. Haeuptle, M.-T., et al., J. Biol. Chem, 258, 305 (1983).
- 3. Green, N.M., Meth. Enzymol., 18A, 418 (1970).

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MATERIAL SAFETY DATA SHEET

Effective Date: March 31, 2006 Revision 5 Page 1 of 2

PRODUCT IDENTIFICATION

Crude and purified protein and enzymes. Name:

P-01, 2402, 2404, EC-32118, EC-32118S, EC-34424, EC-34424, BA-000, BA-002, Catalog Number (s): NP-01 to NP-05, B-1201 to B-4601, L-1102 to L-9000, AT-2100 to AT-2701, AF-

001 to AF-2354, AL-1104 to AL-4701,13-600 to 13-607, DM1011P to DM1064P.

Formula: Complex polypeptides.

Protein A, Horseradish Peroxidase, Laminin (mouse), Neuraminidase, Bromelain, Synonyms:

Avidin (egg white), Glycosylated Boyine Serum Albumin, Lectins, Secondary and

Monoclonal Antibodies, other Antisera.

EMERGENCY INFORMATION

EY Laboratories, Inc. **EMERGENCY PHONE:** 107 North Amphlett Blvd. 650-342-3296

San Mateo, CA 94401

HAZARDOUS COMPONENTS

Specific protein (s) as listed on the vial label. Solutions are at a concentration generally greater than 0.5mg protein / ml. Powders are generally greater than 95% specific protein unless otherwise indicated on the vial label or product information sheet. Biological activity of these proteins will vary. Although these materials are not generally considered to be hazardous they may cause allergic responses in sensitive individuals if inhaled or allowed to contact skin.

HEALTH HAZARD INFORMATION

EXPOSURE LIMITS: None established. The toxicological properties of these products have not

been thoroughly investigated. Care should be taken when handling any of

these materials.

EFFECTS OF Any of these proteins may cause acute localized eye, skin, or mucous

OVEREXPOSURE: membrane irritation. Some sensitive individuals may develop a chronic

allergic reaction with exposure.

ROUTES OF Inhalation of powders and skin contact with liquids are the primary routes of

EXPOSURE: exposure. Care should be taken to avoid the formation of aerosols when

handling any of the solutions.

PHYSICAL CHARACTERISTICS

Powders may be white to amber brown in color. Solutions may be translucent APPEARANCE:

to a clear brown

SOLUBILITY: Powders are completely soluble in many biological buffers. Some are soluble

in water. All liquids are completely miscible in water and biological buffers

FIRE AND EXPLOSION HAZARDS

EXTINGUISHING MEDIA

Not considered to be a fire hazard.

Water spray or CO 2.

SPECIAL FIRE FIGHTING PRECAUTIONS: None required.

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650-342-3296 307 North Amphlett Blvd. Šan Mateo, CA 94401 650-342-2648 Fax: 1-800-821-0044 Orders: (Outside CA only) MSDS for Crude and Purified Proteins and Enzymes Continued - page 2 of 2.

NOTE: Most solutions contain 0.05% sodium azide as a preservative. Azide may react with lead and copper plumbing to form explosive metal azides. Flush with copious amounts of water when disposing material in the sink.

REACTIVITY DATA

STABILITY: Stable, Decomposition products are not known to be

hazardous.

HAZARDOUS POLYMERIZATION: Will NOT occur.

INCOMPATIBILITY: None known. (Lead and copper may react with

sodium azide).

SPILL / LEAK PROCEDURES

MATERIAL RELEASE / Avoid contact with powder or liquid. Clean up spill with a paper towel

SPILL:

soaked in household bleach. Do not allow solutions to dry on environmental surfaces. Wash affected area with detergent after the area

has been treated with bleach.

WASTE DISPOSAL: Incinerate, autoclave, or dispose of paper waste in accordance with all

Local, State, and Federal regulations. Due to the small quantities of material involved these products are generally not considered to be environmental hazards. All of these proteins are fully biodegradable.

EMERGENCY FIRST AID PROCEDURES

May be harmful if swallowed, inhaled, or allowed to absorb through the skin. Wash contacted area with water for 15 minutes. If inhaled remove to fresh air, Report exposure to the appropriate safety official. Consult a physician if irritation occurs or if there is any indication of an allergic response such as watering eyes, sneezing, or difficulty breathing

SPECIAL HANDLING PRECAUTIONS

VENTILATION: No special ventilation is required but it is recommended to handle these

reagents in a fume hood when possible.

EYE PROTECTION: Not required under most circumstances but recommended as a safety

precaution.

RESPIRATORY Recommended as a safety precaution, specifically when working with

PROTECTION: powders. An approved respirator may be required for those individuals

already known to be sensitive to these materials.

PROTECTIVE GLOVES: Required when handling any of these materials.

SPECIAL PRECAUTIONS

This material is for research and experimental application only. It is not intended for food, drug, household, agricultural, or cosmetic use. All materials should be handled only by technically qualified individuals experienced with working with potentially hazardous chemicals. The above information is correct to the best of our knowledge. The user should make independent decisions regarding completeness of the information, based on all sources available. EY Laboratories, Inc. shall not be held liable for any damage resulting from handling or contact with the above product.

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