



Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH), Annex II

Trade Name: 4-Hydroxynonenal Conj. BSA

Material No.: A2B400H

Version: 1.0

Revision: 002

Specification: A2B400H

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Revision Date: 30 NOV 2017

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

Identification of the substance or preparation: 4-Hydroxynonenal (HNE)-Conjugated Bovine Serum Albumin (BSA), Catalog # A2B400H supplied in Phosphate Buffered Saline, pH 7.4.

REACH Registration No: Not Applicable

Use of the Substance / Preparation:

Identified Use(s): For *in vitro* laboratory use. For professional use only.

Company Undertaking Identification:

Meridian Life Science, Inc.
5171 Wilfong Road
Memphis, TN 38134 U.S.A.
901-382-8716

E-Mail: info@meridianlifescience.com

EMERGENCY TELEPHONE: US – 1-800-424-9300
International – 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification: Void

Information Pertaining to Special Dangers for Human and Environment:

This mixture does not require labeling, based on the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest version. This mixture is not classified as hazardous according to the EC Dangerous Preparations Directive (1999/45/EC) or EC 1272/2008 (CLP).

Classification System:

The classification is in alignment with current EC (European Community) Directives. It is expanded with information from technical literature.

Physical Hazards: Not classified as a physical hazard.

Health Hazard: Not classified as a health hazard.

Environmental Hazard: Not classified as environmental hazard.

Precautionary Statements: The chemical, physical and toxicological properties of this mixture have not been thoroughly characterized. Avoid contact with eyes and skin. Do not inhale. This mixture contains material of animal origin and should be considered as potentially capable of transmitting infectious disease.

Potential Health Effects:

Inhalation: No data available.

Eyes: No data available. Eye exposure may cause irritation, redness and watering.

Skin: No data available.

Ingestion: No data available.

Chronic Effects: No data available.

Target Organs: No data available.



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3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Characterization (Hazardous Chemical Ingredients):

Chemical Name	EC-No.	Index-No.	CAS-No.	%	Classification	Labeling
					Symbol	R-Phrases
Benzethonium Chloride	204-479-9	Not Available	121-54-0	0.01	None	None

Dangerous Components According to EC Criteria: None

Additional Information: For wording of the listed risk phrases, refer to Section 16.

4. FIRST AID MEASURES

In Case of Inhalation: Remove from source of exposure. Seek medical attention if breathing becomes difficult or if cough or other symptoms develop.

In Case of Skin Contact: Remove clothing that product has touched. Rinse skin for 15 minutes. Seek medical attention if irritation persists.

In Case of Eye Contact: Immediately flush with tepid water for 15 minutes. Remove contact lenses if worn. Obtain medical attention if redness or irritation persists.

In Case of Ingestion: Rinse mouth with water. Seek medical attention if signs of toxicity occur.

Self-Protection of the First Aider: Follow company specific safety procedures.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing media suitable for surrounding fire, such as carbon dioxide, chemical foam, dry chemical or water spray.

Extinguishing Media Which Must Not Be Used for Safety Reasons: Unknown.

Special Exposure Hazards Arising From the Substance or Preparation Itself, Combustion Products, Resulting Gases: Dilute aqueous solution not considered a fire hazard.

Special Protective Equipment for Fire Fighters: Fire fighters should wear NIOSH-approved or self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: See Section 8.

Environmental Precautions: Follow proper disposal procedures.

Methods for Cleaning Up: Absorb spill with inert material/absorbent. Decontaminate the spill site following standard procedures. Dispose of waste in accordance with all applicable federal, state, local and provincial environmental regulations per Section 13.



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7. HANDLING AND STORAGE

Handling: Follow good laboratory hygiene practices. See Section 8, Engineering Controls. Minimize contact and contamination of personal clothing and skin. Wash hands thoroughly after handling.

Storage: Short-term store at 2–8°C. Long term store at -20°C. Avoid multiple freeze/thaw cycles. Store in original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit Values: None

Exposure Controls: This product is not expected to require special ventilation controls. Facilities storing or using this product should be equipped with an eyewash fountain.

Personal Protection Equipment:

Respiratory Protection: A respirator is not expected to be required under normal conditions of use.

Hand Protection: Wear chemical resistant protective gloves.

Eye Protection: Wear appropriate protective safety eye glasses or goggles.

Body Protection: Wear lab coat or other protective garments. Remove contaminated clothing promptly.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid

Physical State: Liquid

Color: Not Available

Odor: Not Available

Parameter	Value
pH (20°C):	Not Available
Melting Point/Range (°C):	Not Available
Boiling Point/Range (°C):	Not Available
Flash Point (°C):	Not Applicable
Ignition Temperature (°C):	Not Applicable
Vapor Pressure (°C):	Not Available
Density (g/cm ³):	Not Available
Bulk Density (kg/m ³):	Not Available
Water Solubility (20°C in g/L):	Not Available
Partition Coefficient n-Octanol/Water (log Po/w):	Not Available
Viscosity, Dynamic (mPa s):	Not Available
Dust Explosion Hazard:	Not Applicable



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10. STABILITY AND REACTIVITY

Reactivity: Sensitive to light. Reactive with soaps, anionic detergents, and nitrates.

Stability: Stable under ordinary conditions of storage and use.

Conditions to Avoid: No decomposition if used and stored according to specifications.

Materials to Avoid: Incompatible with strong oxidizing agents, strong acids, strong bases.

Hazardous Decomposition Products: None expected under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Routes of exposure may include inhalation, skin absorption, and eye and skin contact.

The following toxicological information is for the hazardous ingredients in pure form:

Acute Toxicity:

After Inhalation: Irritation and/or damage of the mucous membranes of respiratory tract.

After Swallowing: Irritation of the mouth, throat, and other tissues of the gastrointestinal system can occur.

After Skin Contact: Irritation of the skin. Danger of skin absorption.

After Eye Contact: Causes eye irritation.

Animal Toxicological Data: LD50 (oral, Mouse): 338 mg/kg; 368 mg/kg (oral, Rat).

Human Toxicological Data: Causes damages to the following organs: mucous membranes.

Further Toxicological Information: Danger of cumulative effects.

Additional Toxicological Information: This product is not subject to classification, according to the calculation method of the General EC Classification Guidelines for preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects according to our experience and information available to us.

12. ECOLOGICAL INFORMATION

For Benzethonium Chloride Ingredient:

Ecotoxicity: Ecotoxicity in water (LC50): 1.6 mg/L 96 hours (*Pimephales promelas*). 1.4 mg/L 96 hours (*Lipomas macrochirus*). 56 mg/L 96 hours (*Oncorhynchus kisutch*).

BOD5 and COD: Not available.

13. DISPOSAL CONSIDERATIONS

Appropriate Disposal / Product: Dispose of unused product, spilled substance and waste in accordance with all applicable federal, state, local and provincial environmental and waste regulations.



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14. TRANSPORT INFORMATION

Land Transport (ADR/RID/GGVSE): Not restricted. Not regulated as hazardous goods.

Sea Transport (IMDG-Code/GGVSee): Not restricted. Not regulated as hazardous goods.

Air Transport (ICAO-IATA/DGR): Not restricted. Not regulated as hazardous goods.

15. REGULATORY INFORMATION

EU Regulations:

Chemical Name	EC-No.	Index-No.	CAS-No.	%	Classification	Labeling
					Symbol	R-Phrases
Benzethonium Chloride	204-479-9	Not Available	121-54-0	0.01	None	None

Chemical Safety Assessment: Observe general laboratory safety regulations when handling chemicals. This product is not subject to identification regulations under EC Directives.

16. OTHER INFORMATION

Exposure Scenarios:

Routes of exposure may include inhalation, skin absorption, and eye and skin contact.

Exposure Controls:

Observe general laboratory safety regulations when handling chemicals. This product is not expected to require special ventilation controls. Facilities storing or using this product should be equipped with an eyewash fountain.

Personal Protection Equipment:

Respiratory Protection: A respirator is not expected to be required under normal conditions of use.

Hand Protection: Wear chemical resistant protective gloves.

Eye Protection: Wear appropriate protective safety eye glasses or goggles.

Body Protection: Wear lab coat or other protective garments. Remove contaminated clothing promptly.

This Safety Data Sheet (SDS) was prepared in accordance with the hazard criteria and content requirements of the EU Dangerous Substances Directive (67/548/EEC), Dangerous Preparations Directive (1999/45/EC), the Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) ((EC) No 1907/2006) and EC 1272/2008 Classification, Labeling, Packaging (CLP). These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. The information contained in this SDS is believed to be accurate but does not purport to be all inclusive and should be used only as a guide for experienced personnel. It is the responsibility of the user or supplier to determine the applicability of the data to the formulation of necessary safety precautions. Meridian Life Science, Inc. shall not be held liable for any damage resulting from the use of the above product or the information contained in this SDS.