

**THIS FILE CONTAINS TWO
DOCUMENTS:**

**MSDS for BioSB Concentrated Antibodies
(print pages from 3 to 6)**

AND

**MSDS for BioSB Prediluted Antibodies
(print pages from 7 to 10)**

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SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product(s) Description: Concentrated solutions of unconjugated and conjugated antibodies in PBS based antibody stabilization solution.

Applicable to all Bio SB Inc. manufactured concentrated antibodies with catalog numbers series BSB 5XXX and BSB 6XXX.

SECTION 2 – PRODUCT COMPOSITION/INGREDIENTS

Ingredient Name	CAS #	EC #
Water	7732-18-5	231-791-2
Bovine Serum Albumin	9048-46-8	232-936-2
Sodium Chloride	7647-14-5	231-598-3
Potassium chloride	7447-40-7	231-211-8
Tris Base	77-86-1	201-064-4
Potassium Phosphate	7758-11-4	231-913-4
Sodium Azide ($\leq 0.1\%$)	26628-22-8	247-852-1
Immunoglobulin	N/A	N/A

(May contain additional non-hazardous proprietary ingredients)

SECTION 3 – HAZARDS IDENTIFICATION

HMIS RATING:

HEALTH:	1
FLAMMABILITY:	0
REACTIVITY:	0
PERSONAL PROTECTION:	B

(For TOXICITY information, please refer to SECTION 11)

SECTION 4 – FIRST AID MEASURES

ORAL EXPOSURE: If swallowed, wash out mouth with water (provided person is conscious) and call a physician.

EYE EXPOSURE: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes.

Assure adequate flushing by separating the eyelids with fingers. Call a physician.

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

DERMAL EXPOSURE: In case of contact with skin, immediately wash with soap and copious amounts of water.

If a skin reaction develops, call a physician.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT:	N/A
AUTOIGNITION TEMPERATURE:	N/A
FLAMMABILITY:	N/A
EXTINGUISHING MEDIA:	Water, carbon dioxide, chemical dry powder or chemical foam.
FIREFIGHTING:	
Protective Equipment:	Wear self-contained breathing apparatus and protective clothing.
Specific Hazards:	Emits toxic fumes under fire conditions.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Minimize direct contact with skin or eyes and prevent inhalation.
CLEANING UP:	If in liquid form, blot with adsorbing material, otherwise sweep up. Place collected material in a plastic bag and hold for appropriate waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

SECTION 7 – ACCIDENTAL RELEASE MEASURES

HANDLING:	Avoid inhalation. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure.
STORAGE:	Keep tightly closed. Store at 2-8 ⁰ C.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTIVE EQUIPMENT (PPE)

ENGINEERING CONTROLS:	Safety shower and eye bath. Mechanical exhaust required.
PPE:	Use respirators and/or dust masks, protective gloves and chemical safety goggles. Wash thoroughly after handling.

SECTION 9 – PHYSICAL / CHEMICAL PROPERTIES

APPEARANCE:	Physical State: Clear liquid
PROPERTIES:	VALUE:
pH	Neutral
BP/BP Range	N/A
MO/MP Range	N/A
Freezing Point	0 ⁰ C
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
Bulk Density	N/A

Odor Threshold	N/A
Volatile %	N/A
VOC Content	N/A
Water Content	> 95%
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
Solubility	Water Soluble
Miscellaneous Data:	N/A

N/A = Information Not Available

SECTION 10 – STABILITY AND REACTIVITY

STABILITY:	Stable under recommended storage conditions. Avoid strong oxidizing agents, acids and bases. Avoid elevated temperatures or repeated temperature changes.
HAZARDOUS REACTIVITY:	May produce toxic fumes of phosphoxides and sodium oxides under fire conditions. May react with lead and copper plumbing to form highly explosive metal azides.
HAZARDOUS DECOMPOSITION:	Carbon monoxide, Carbon dioxide
HAZARDOUS POLYMERIZATION:	N/A

SECTION 11 – TOXICOLOGICAL INFORMATION

ROUTE OF EXPOSURE:	Skin contact (may cause skin irritation). Skin absorption (may be harmful if absorbed through the skin). Eye contact (may cause eye irritation). Inhalation (may irritate mucous membranes and upper respiratory tract, may be harmful if inhaled). Ingestion (may be harmful if swallowed).
SIGNS/SYMPTOMS OF EXPOSURE:	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
CARCINOGENICITY:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by OSHA.
TERATOGENICITY:	No Data Available
MUTAGENICITY:	No Data Available
REPRODUCTIVE:	No Data Available

SECTION 12 – ECOLOGICAL INFORMATION

No Data Available

SECTION 13 – DISPOSAL INFORMATION

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

SECTION 14 – TRANSPORT INFORMATION

This substance is considered to be non-hazardous for transport (including air transport).

SECTION 15 – OTHER INFORMATION

Products labeled as IVD are suitable for in vitro diagnostics use only. Products labeled as RUO are suitable for research use only. Products labeled as ASR are suitable for use only as analytical specific reagent. Not for drug, household or other uses.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Bio SB Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product(s) Description: Prediluted solutions of unconjugated and conjugated antibodies in PBS based antibody stabilization solution.

Applicable to all Bio SB Inc. manufactured prediluted antibodies with catalog numbers series BSB 5XXX and BSB 6XXX.

SECTION 2 – PRODUCT COMPOSITION/INGREDIENTS

Ingredient Name	CAS #	EC #
Water	7732-18-5	231-791-2
Bovine Serum Albumin	9048-46-8	232-936-2
Horse Serum	N/A	N/A
Sodium Phosphate Monobasic	10049-21-5	231-449-2
Sodium Phosphate Dibasic	7558-79-4	231-448-7
Sodium Azide ($\leq 0.01\%$)	26628-22-8	247-852-1
5-Bromo-5-nitro-1,3-dioxane ($\leq 0.2\%$)	30007-47-7	250-001-7
Propylene Glycol	57-55-6	200-338-0
Immunoglobulin	N/A	N/A

(May contain additional non-hazardous proprietary ingredients)

SECTION 3 – HAZARDS IDENTIFICATION

HMIS RATING:

HEALTH:	1
FLAMMABILITY:	0
REACTIVITY:	0
PERSONAL PROTECTION:	B

(For TOXICITY information, please refer to SECTION 11)

SECTION 4 – FIRST AID MEASURES

ORAL EXPOSURE: If swallowed, wash out mouth with water (provided person is conscious) and call a physician.

EYE EXPOSURE: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes.

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If a skin reaction develops, call a physician.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT:	N/A
AUTOIGNITION TEMPERATURE:	N/A
FLAMMABILITY:	N/A
EXTINGUISHING MEDIA:	Water, carbon dioxide, chemical dry powder or chemical foam.
FIREFIGHTING:	
Protective Equipment:	Wear self-contained breathing apparatus and protective clothing.
Specific Hazards:	Emits toxic fumes under fire conditions.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Minimize direct contact with skin or eyes and prevent inhalation.
CLEANING UP:	If in liquid form, blot with adsorbing material, otherwise sweep up. Place collected material in a plastic bag and hold for appropriate waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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HANDLING:	Avoid inhalation. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure.
STORAGE:	Keep tightly closed. Store at 2-8 ⁰ C.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTIVE EQUIPMENT (PPE)

ENGINEERING CONTROLS:	Safety shower and eye bath. Mechanical exhaust required.
PPE:	Use respirators and/or dust masks, protective gloves and chemical safety goggles. Wash thoroughly after handling.

SECTION 9 – PHYSICAL / CHEMICAL PROPERTIES

APPEARANCE:	Physical State: Clear green colored liquid
PROPERTIES:	VALUE:
pH	Neutral
BP/BP Range	N/A
MO/MP Range	N/A
Freezing Point	0 ⁰ C
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile %	N/A

VOC Content	N/A
Water Content	> 95%
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
Solubility	Water Soluble
Miscellaneous Data:	N/A

N/A = Information Not Available

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HAZARDOUS DECOMPOSITION:	Carbon monoxide, Carbon dioxide
HAZARDOUS POLYMERIZATION:	N/A

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REPRODUCTIVE:	No Data Available

SECTION 12 – ECOLOGICAL INFORMATION

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