

Antibodies for Immunochemistry and Immunofluorescence Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 Product identifier

Product Name/Class: Concentrated and prediluted solutions of unconjugated and conjugated monoclonal or polyclonal antibodies in aqueous Tris-base antibody stabilization solution ($\text{NaN}_3 < 0.1\%$).

Catalog Numbers:

Applicable to all Bio SB Inc. manufactured concentrated and prediluted antibodies with catalog number series: BSB 2xxx, BSB 3xxx, BSB 5xxxx and BSB 6xxxx series

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Immunohistochemistry (IHC) for IVD (In-Vitro Diagnostics), RUO (Research Use Only), or ASR (Analyte Specific Reagent)

Not intended for use in humans or animals

1.3 Details of the supplier of the safety data sheet

Manufacturer	Bio SB, Inc.
Street Address	69 Santa Felicia Dr.
City, State, Zip, Country	Santa Barbara, CA 93117, USA
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Website:	biosb.com

1.4 Emergency telephone number

Telephone number: +1-805 692 2768 (9 AM - 5 PM PST, M-F)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the mixture

Classification (EC 1272/2008)

According to Regulation (EC) No. 1272/2008 this mixture is classified as non-hazardous

2.2 Label elements

Product is not subject to labeling according to (EC) No. 1272/2008 (GHS/CLP)

GHS-US labeling:

Hazard statements (GHS-US) : H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS-US) : P273 - Avoid release to the environment

P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3 Other information

Substance does not meet the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII.

Substance does not meet the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Component	Chemical name	% Conc.	CAS#	EC#	Classification (pure ingredient)	Class. (kit)
Concentrated and prediluted solutions of unconjugated and conjugated monoclonal or polyclonal antibodies in aqueous Tris-base antibody stabilization solution.	Sodium Azide	<0.1% (w/v)	26628-22-8	247-852-1	Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	NA
	TBS	-	-	-	Not classified	NA
	Stabilizer proteins	-	-	-	Not classified	NA

The Full Text for all Hazard Statements are displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation	In case of inhalation of spray mist: Move person into fresh air and keep at rest. Get medical attention if any discomfort continues. If breathing stops, provide artificial respiration. Get medical attention immediately!
Ingestion	Immediately rinse mouth and drink plenty of water (200-300 ml). DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Obtain medical attention and bring these instructions.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	May cause coughing or mild irritation.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No specific first aid measures noted. Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media Fire can be extinguished using: Water spray. Foam. Powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is non-combustible. If heated, irritating vapors may be formed. Hydrogen chloride (HCl). When heated and in case of fire, very toxic nitrogen oxides (NOx) are formed.

5.3. Advice for firefighters

Protective equipment for fire-fighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Stop leak if possible without any risk. Remove or isolate all sources of ignition. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Do not allow to enter drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Absorb spillage with suitable absorbent material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Avoid inhalation of vapors/spray and contact with skin and eyes. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Refer to product label.

Storage Class: Refer to product datasheet.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name: NaN₃ <0.1%
Workplace Exposure Limit:

8.2. Exposure controls

Protective equipment	Protective gloves, protective clothing, and safety glasses
Process conditions	Provide eyewash station.
Engineering measures	Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of spray.
Respiratory equipment	No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.
Hand protection	Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Not suitable for permanent contact. Frequent change is advisable. Latex or Nitrile gloves; thickness 0.11 mm, ASTM F1671, DIN EN 455 or equivalent; AQL 1.5.
Eye protection	Wear safety goggles or face shield. DIN 166 or equivalent.
Other Protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Skin protection	Wear apron or protective clothing in case of contact. Wash contaminated clothing before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Color	Clear (Concentrated), Green (Prediluted)
Odor	Odorless
Solubility	Soluble in water.
Initial boiling point and boiling range	<100 @ 760 mm Hg
Melting point (°C)	~ 0°C
Relative density	~1 g/ml
Vapor density (air=1)	Not determined
Vapor pressure	Not determined
Evaporation rate	Not determined
Viscosity	Not determined
Solubility Value (G/100G H ₂ O@20°C)	Not determined
Decomposition temperature (°C)	Not determined
Flash point	Not applicable
Auto Ignition Temperature (°C)	Not determined

Flammability Limit - Lower(%)	Not applicable
Flammability Limit - Upper(%)	Not applicable
Partition Coefficient (N-Octanol/Water)	Not determined
Explosive properties	Not applicable
Oxidizing properties	Does not meet the criteria for oxidizing

9.2. Other information

None

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal storage and handling conditions

10.3. Possibility of hazardous reactions

Hazardous Polymerization Will not polymerize

10.4. Conditions to avoid

Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials To Avoid: none known

10.6. Hazardous decomposition products

None Known

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information

Acute toxicity:	No information available
Skin sensitization	May cause skin irritation
Serious eye damage/irritation:	May cause eye irritation
Respiratory sensitization	May cause irritation
Germ cell mutagenicity (InVitro)	Not determined
Carcinogenicity	Not determined
Reproductive Toxicity – Fertility	Not determined
Specific target organ toxicity - single exposure: STOT - Single exposure	Not determined
Specific target organ toxicity - repeated exposure: STOT - Repeated exposure	Not determined
Aspiration hazard:	
Viscosity	Not determined
Inhalation	In high concentrations, vapors may irritate throat and respiratory system and cause coughing.

Ingestion	Harmful if swallowed.
Skin contact	Liquid may irritate skin. Not a skin sensitizer.
Eye contact	Spray and vapor in the eyes may cause irritation and smarting.
Health Warnings	Known or suspected mutagen. Known or suspected carcinogen for humans.
Route of entry	Ingestion. Skin and/or eye contact.
Toxicological information on ingredients.	SODIUM AZIDE

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	No data available
Other	May be harmful to aquatic life in very low concentrations

12.2. Persistence and degradability

Degradability	No data on the degradability of this product. This product is expected to be not readily biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation. The product does not contain any substances expected to be bioaccumulating.
Partition coefficient	Not determined

12.4. Mobility in soil

Mobility:	The product is soluble in water.
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12.5. Results of PBT and vPvB assessment

Not expected to be PBT or vPvB

12.6. Other adverse effects

Not determined

SECTION 13: DISPOSAL CONSIDERATIONS

General information	Waste is classified as hazardous waste. Disposal to licensed waste disposal in accordance with the local Waste Disposal Authority.
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13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORTATION INFORMATION

General	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).
Road Transport Notes	Not Classified
Rail Transport Notes	Not classified
Sea Transport Notes	Not classified
Air Transport Notes	Not classified

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant No

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Approved Code of Practice	Classification and Labeling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.
Guidance Notes	Workplace Exposure Limits EH40.

EU Legislation

Regulation (EU) No 453/2010 of 20 May 2010 Annex II and Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, and amending Regulation (EC) No 1907/2006 with amendments. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

General information Only trained personnel should use this material.

Full Text of H-Phrases:

Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard, Category 3
H300	Fatal if swallowed
H310	Fatal in contact with skin
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to determine the applicability of these data to the formulation of necessary safety precautions.

Bio SB shall not be held responsible for any damage resulting from the use of the above product or the information contained in this safety datasheet.

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