

**PolyDetector HRP Blue Substrate Chromogen Kit
 Safety Data Sheet**

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 Product identifier

Product: **PolyDetector HRP Blue Substrate Chromogen Kit**
 Catalog Numbers:

BSB 0143	PolyDetector HRP Blue kit, 15 ml, (150 Tests)
BSB 0144	PolyDetector HRP Blue kit, 50 ml, (500 Tests)
BSB 0145	PolyDetector HRP Blue kit, 100 ml, (1000 Tests)
BSB 0146	PolyDetector HRP Blue kit, 200 ml, (2000 Tests)
BSB 0147	PolyDetector HRP Blue kit, 500 ml, (5000 Tests)
BSB 0148	PolyDetector HRP Blue kit, 1000 ml, (10000 Tests)

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

Recommended use: Immunohistochemistry (IHC) reagent for detection/ancillary 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
 Technical Phone: +1-805-692 2768
 Fax: +1-805-692 2769
 E-mail: info@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 OSHA/HCS Status (29 CFR 1920.1200)

According to OSHA Hazard Communication Standard this mixture is classified as hazardous
 Classification (EC 1272/2008)


According to Regulation (EC) No. 1271/2008 this mixture is classified as hazardous

Human health
 H302 Acute Toxicity (Category 4)
 H319 Eye Irritation (Category 2A)
 H341 Germ Cell Mutagenicity Category 2

H350 Carcinogenicity Category 1B

For the full Text for all Hazard Statements mentioned in this Section, see Section 16.

2.2 Label elements

Contains	BIPHENYL-3,3',4,4'-TETRAYL-TETRAAMONIUM TERACHLORIDE	
Label In Accordance With (EC) No. 1272/2008		
Hazard Pictograms	GHS08	
Signal Word	Danger	
Hazard Statements	H302	Acute toxicity, Oral (Category 4)
	H319	Eye Irritation (Category 2A)
	H341	Suspected of causing genetic defects.
	H350	May cause cancer.
Precautionary Statements		
Prevention	P201	Obtain special instructions before use
	P202	Do not handle until all safety precautions have been read and understood.
	P280	Wear protective clothing, gloves, wear eye and face protection.
Response	P308+313	IF exposed or concerned: Get medical advice/attention.
Storage	P405	Store locked up
	P501	Dispose of contents and container in accordance with all local, regional, national and international regulations

2.3 Other information

Hazards not otherwise classified None known

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Component	Chemical Name	% Conc.	CAS#	EC#	Classification (pure ingredient)	Classification (Kit)
HRP Blue Chromogen	Biphenyl-3,3',4,4'-Tetrayl-Tetraammonium Tetrachloride	≤ 5	7411-49-6	231-018-9	Acute Tox. 4; Muta.2; Carc. 1B; H302, H341, H319, H350	Acute Tox. 4; Muta.2; Carc. 1B; H302, H341, H319, H350
	Propane 1,2-diol	≤ 60	57-55-6	200-338-0	Not classified	Not classified
	6-Methoxy-2-naphthol	≤ 1	5111-66-0	N/A	Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H319, H335	Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H319, H335
HRP Blue Buffer	Sodium dihydrogen citrate	≤ 1	18996-35-5	201-069-1	Not classified	Not classified

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

If seeking medical attention show Safety Data Sheet to physician. Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media Fire can be extinguished using: Water spray, alcohol resistance foam, carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Specific hazards If heated and in case of fire, irritating vapors may be formed, Carbon Oxides, Hydrogen chloride (HCl) gas, nitrogen oxides (NOx).

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not allow to enter drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Ensure adequate ventilation. Absorb spillage with suitable absorbent material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

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

Avoid inhalation of vapors/spray and contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.

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 (TRGS 510): Non-combustible, acute toxic cat 3/toxic hazardous materials or hazardous materials causing chronic effects.

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

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Propane-1,2-diol	57-55-6	TWA	10.0 mg/m ³	USA. Workplace Environmental Exposure Levels (WEEL)

8.2. Exposure controls

Protective equipment	Impermeable gloves 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. Frequent change is advisable.
Eye protection	If risk of splashing, wear safety goggles or face shield.
Other Protection	Wear appropriate clothing to prevent any possibility of skin contact.

Skin protection	Wear apron or protective clothing in case of contact. Wash contaminated clothing before reuse.
Control of Environmental Exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Color	Tan/purple (Chromogen); clear (buffer)
Odor	No data available
Solubility	Soluble in water.
Initial boiling point and boiling range	No data available
Melting point (°C)	No data available
Relative density	Not determined
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	No data available

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

May darken on storage. Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

No relevant information available for these concentrations

10.4. Conditions to avoid

Avoid exposure to high temperatures, moisture, or direct sunlight.

10.5. Incompatible materials

Acid chlorides, acid anhydrides, oxidizing agents, Chloroformates, reducing agents, strong oxidizing agents.

10.6. Hazardous decomposition products

No relevant information available for these concentrations
In the vent of fire see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information	No information available
Acute toxicity:	Quantitative data about toxicity of this product not available
Skin Corrosion/Irritation:	
Human Skin Model Test	No data available
Serious eye damage/irritation:	No data available
Respiratory sensitization	No data available
Skin sensitization	No data available
Germ cell mutagenicity (InVitro)	No data available
Carcinogenicity	No data available
Reproductive Toxicity – Fertility	No data available
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.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity There are no data on the ecotoxicity of this product.

12.1. Toxicity

No data available

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 32 mg/l - 24 h

12.2. Persistence and degradability

Degradability no data available on the degradability of this product. This product is expected to be not readily biodegradable.

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.

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 site in accordance with the local Waste Disposal Authority.

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, DOT (US)].
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
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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.

SARA 302 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimus) reporting levels established by SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimus) reporting levels established by SARA Title III, Section 312.

Massachusetts, New Jersey, Pennsylvania Right to Know Components

Biphenyl-3-3',4-4'-tetrayltetraammonium tetrachloride CAS-No. 7411-49-6

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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.
SDS No.:	Revision A
Date:	11/28/2016

Hazard Statements In Full

H350	May cause cancer.
H341	Suspected of causing genetic defects.

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 satisfy him or herself as to the suitability of such information for his own particular use.

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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