SAFETY DATA SHEET

SDS DAB Substrate buffer, component 1

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: **DAB Substrate buffer, component 1**

Product number: NB314SB (component 1)
Brand: **Innovex**

Manufacturer: Innovex Biosciences Inc.

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

Identified uses: Use in laboratories - Professional.

1.3 Details of the supplier of the safety data sheet

Company name: Innovex Biosciences Inc.
1099 Essex Ave.
Richmond CA 94801
USA

Telephone: 1 800-622-7808
Fax: 510-234-4591

1.4 Emergency telephone number

Emergency Tel: 510-234-660

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification under CHIP: This product has no classification under CHIP.
Classification under CLP: This product has no classification under CLP.

2.2 Label elements

This product has no label elements.

2.3 Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Mixtures

Hazardous ingredients: HYDROGEN PEROXIDE SOLUTION

EC	CAS	CHIP Classification
231-765-0	7722-84-1	R5; O: R8; Xn: R20/22; C: R35

CLP Classification	Percrent
Ox. Liq. 1: H271; Acute Tox. 4: H332; Acute Tox. 4: H302; Skin Corr. 1A: H314	1-5%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water.

Eye contact: Flush eyes with running water for 15 minutes.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water**.**

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact: There may be mild irritation and redness at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: No symptoms.

Delayed / immediate effects: No data available.

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

Not applicable.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media for the surrounding fire should be used.

5.2 Special hazards arising from the substance or mixture
In combustion emits toxic fumes.

5.3 Advice for fire-fighters
Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid breathing vapors, mist or gas.
Turn leaking containers leak-side up to prevent the escape of liquid.
For personal protection see section 8.

6.2 Environmental precautions
Do not discharge into drains or rivers. Contain the spillage using bonding.

6.3 Methods and materials for containment and cleaning up

Clean-up procedures
Absorb into dry earth or sand. Transfer to a closable, labeled salvage container for disposal by an appropriate method.

6.4 Reference to other sections
See section 8 and section 13 of SDS.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid direct contact with the substance.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool, well -ventilated area. Keep container tightly closed.

Recommended storage temperature: 2-8^{o}c.

7.3 Specific end use(s)
Use in laboratories - Professional.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Hazardous ingredients: HYDROGEN PEROXIDE SOLUTION

Workplace exposure limits:

Country	8 hour TWA
UK	1.4 mg/m^3
IE	1.5 mg/m^3
US	1.4 mg/m^3
CA	1.4 mg/m^3
AU	1.4 mg/m^3
NZ	_

DNEL/PNEC Values

DNEL / PNEC: No data available.

8.2 Exposure controls

Engineering measures: General industrial hygiene practice.
Ensure engineering measures mentioned in section 7 of SDS are in place.

Respiratory Protection: Respiratory protection not required.

Eye protection: Safety glasses. Ensure eye flushing at hand.

Skin protection: Protective clothing.

Hand protection: Handle with protective gloves.

Environmental: Prevent from entering into the immediate environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

State: Liquid

Color: Colorless

Odor: Odorless

pH: No data available

Evaporation Rate:	No data available
Oxidizing Properties:	No data available
Solubility in water:	No data available
Melting point/range °c:	No data available
Viscosity:	No data available
Boiling point/range °c:	No data available
Flammability (solid/gas):	No data available
Flammability (upper/lower) limit:	No data available
Flash point °c:	No data available
Auto-ignition temperature °c:	No data available
Relative density:	No data available
VOC g/l:	No data available
Partition coefficient: n-octanol/water:	No data available
Vapor pressure:	No data available
Explosive properties:	No data available

9.2 Other information: Not applicable.

10. STABILITY AND REACTIVITY

10.1 Reactivity
Stable under recommended transport or storage conditions.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4 Conditions to avoid
Heat.

10.5 Incompatible Materials
Strong oxidizing agents. Strong acids.

10.6 Hazardous decomposition products
In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Toxicity values: No data available.

Hazardous ingredients:

HYDROGEN PEROXIDE

ORAL	MOUSE	LD50	2	gm/kg
ORAL	RAT	LD50	376	mg/kg
SKIN	RAT	LD50	4060	mg/kg

Symptoms / routes of exposure

Skin contact: There may be mild irritation at the site of contact.

Eye contact : There may be irritation and redness.

Inhalation: No symptoms.

Ingestion: There may be irritation of the throat.

Delayed / immediate effects: No data available.

Other information: Not applicable.

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12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity values: No data available.

12.2 Persistence and degradability: Biodegradable.

12.3 Bioaccumulative potential: No bioaccumulation potential.

12.4 Mobility in soil: Readily absorbed into soil.

12.5 Results of PBT and vPvB assessment

PBT identifications: This product is not identified as a PBT substance.

12.6 Other adverse effects: Negligible ecotoxicity.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal methods: Transfer to a suitable container and arrange for collection by licensed disposal company.

Disposal of packaging: Clean with water. Dispose of as normal industrial waste.
The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. TRANSPORT INFORMATION

Transport class: This product does not require a classification for transport.

15. REGULATORY INFORMATION

SARA 302 Components
The following components are subject to reporting levels established by SARA Title III, Section 302:

	CAS-No.
Hydrogen peroxide	7722-84-1

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313**.**

SARA 311/312 Hazards
None of the ingredients is listed.

Massachusetts Right To Know Components

	CAS-No.
Hydrogen peroxide	7722-84-1

Pennsylvania Right To Know Components

	CAS-No.
Water	7732-18-5
Hydrogen peroxide	7722-84-1

New Jersey Right To Know Components

	CAS-No.
Water	7732-18-5
Hydrogen peroxide	7722-84-1

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.

16. OTHER INFORMATION

Kit Component

Liquid substrate buffer for DAB, component 1,for immunohistochemical staining	INNOVEX Biosciences	NB314SB

HMIS Rating

Health hazard:	0
Flammability:	0
Reactivity:	0

NFPA Rating

Health hazard:	0
Flammability:	0
Reactivity:	0

Phrases used in s.3:

H271: May cause fire or explosion; strong oxidiser.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H332: Harmful if inhaled.
R5: Heating may cause an explosion.
R8: Contact with combustible material may cause fire.
R20/22: Harmful by inhalation and if swallowed.
R35: Causes severe burns.

Legal disclaimer:
The above information is believed to be correct but does not purport to be all-inclusive and shall only be used as a guide. Innovex Biosciences, Inc. shall not be held liable for any damage resulting from contact or from handling the above product. Users should make their own investigations to determine the suitability of the information for their specific purposes.

SAFETY DATA SHEET

SDS Liquid DAB chromogen, component 2

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: **Liquid DAB chromogen, component 2**

Product number: NB314D (component 2)
Brand: **Innovex**

Manufacturer: Innovex Biosciences Inc.

REACH Registration No.: Registration numbers are not available for some or all of the substance ingredients of this mixture as the substance(s) or its uses are exempt from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

Identified uses: Use in laboratories - Professional.

1.4 Details of the supplier of the safety data sheet

Company name: Innovex Biosciences Inc.
1099 Essex Ave.
Richmond CA 94801
USA

Telephone: 1 800-622-7808
Fax: 510-234-4591

1.4 Emergency telephone number

Emergency Tel: 510-234-660

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification under CHIP: Xn: R22; T: R45; Xn: R68
Classification under CLP: Acute Tox. 4: H302; Muta. 2: H341; Carc. 1B: H350
Most important adverse effects: Harmful if swallowed. Suspected of causing genetic defects and cancer.

2.2 Label elements

Label elements under CHIP:

Hazard symbols: Toxic

Risk phrases: R22: Harmful if swallowed.
R45: May cause cancer.
R68: Possible risk of irreversible effects.

Safety phrases: S36/37: Wear suitable protective clothing and gloves.
S53: Avoid exposure - obtain special instructions before use.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Precautionary phrases: Restricted to professional users.

Label elements under CLP:

Hazard statements: H302: Harmful if swallowed.
H341: Suspected of causing genetic defects.
H350: May cause cancer.
Signal words: Danger
Hazard pictograms: GHS07: Exclamation mark
GHS08: Health hazard

Precautionary statements: P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P281: Use personal protective equipment as required.
P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.
P301+312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P330: Rinse mouth.
P308+313: IF exposed or concerned: Get medical advice/attention.

2.3 Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Mixtures

Hazardous ingredients:

3,3' DIAMINOBENZIDINE TETRAHYDROCHLORIDE HYDRATE

EC	CAS	CLP Classification	CHIP Classification	Percent
231-018-9	868272-85-9	Muta. 2: H341; Carc. 1B: H350	T: R45; Xn: R68	1-5%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water. Consult a doctor.

Eye contact: Flush eyes with running water for 15 minutes. Seek medical advice.

Ingestion: Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a doctor.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact: There may be mild irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Stomach pain and nausea may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of chest tightness.

Delayed / immediate effects: Effects can be seen immediately after short-term exposure.

4.3. Indication of any immediate medical attention and special treatment needed
Not applicable.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media for the surrounding fire should be used.

5.2 Special hazards arising from the substance or mixture
In combustion emits toxic fumes.

5.3 Advice for fire-fighters
Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid breathing vapors, mist or gas.
Turn leaking containers leak-side up to prevent the escape of liquid.
For personal protection see section 8.

6.2 Environmental precautions
Do not discharge into drains or rivers. Contain the spillage using bonding.

6.3 Methods and materials for containment and cleaning up

Clean-up procedures
Clean-up should be done only by a qualified personnel. Absorb into dry earth or sand. Transfer to a closable, labeled salvage container for disposal by an appropriate method.

6.4 Reference to other sections
See section 8 and section 13 of SDS.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid direct contact with the substance.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool, dry and well -ventilated area. Keep container tightly closed.

Recommended storage temperature: 2-8^{o}c.

7.3 Specific end use(s)
Use in laboratories - Professional.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure limit: No data available.

DNEL/PNEC Values

DNEL / PNEC: No data available.

8.2 Exposure controls

Engineering measures: Maintain general industrial hygiene practice. Ensure engineering measures mentioned in section 7 of SDS are in place.

Respiratory Protection: Respiratory protection must be made available in case of emergency.

Eye protection: Safety glasses with side shields. Ensure eye flushing at hand.

Skin protection: Protective clothing.

Hand protection: Handle with protective gloves.

Environmental: Observe all engineering measures mentioned in Section 7 of SDS. Prevent from entering into the immediate environment and into public sewers.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

State:	Liquid
Color:	Brown
Odor:	Odorless
pH:	No data available

Evaporation Rate:	No data available
Oxidizing Properties:	No data available
Solubility in water:	No data available
Melting point/range °c:	No data available
Viscosity:	No data available
Boiling point/range °c:	No data available
Flammability (solid/gas):	No data available
Flammability (upper/lower) limit:	No data available
Flash point °c:	No data available
Auto-ignition temperature °c:	No data available
Relative density:	No data available
VOC g/l:	No data available
Partition coefficient: n-octanol/water:	No data available
Vapor pressure:	No data available
Explosive properties:	No data available

9.2 Other information: Not applicable.

10. STABILITY AND REACTIVITY

10.1 Reactivity
Stable under recommended transport or storage conditions.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4 Conditions to avoid
Heat.

10.5 Incompatible Materials
Avoid strong oxidizing agents. Strong acids.

10.6 Hazardous decomposition products
In combustion emits toxic fumes.

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11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Toxicity values: No data available.

Relevant effects for mixture:

Effect	Route
Acute Toxicity (harmful)	ING
Carcinogenicity	-

Symptoms / routes of exposure

Skin contact: There may be irritation at the site of contact.

Eye contact : There may be irritation and redness, eyes may water excessively.

Inhalation: There may be irritation of the throat with a feeling of chest tightness.

Ingestion: There may be soreness and redness of the mouth and throat. Stomach pain may occur. There may be vomiting.

Delayed / immediate effects: Immediate effects can be expected after short –term exposure.

Other information: Not applicable.

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12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity values: No data available.

12.2 Persistence and degradability: Biodegradable.

12.3 Bioaccumulative potential: No bioaccumulation potential.

12.4 Mobility in soil: Readily absorbed into soil.

12.5 Results of PBT and vPvB assessment

PBT identifications: This product is not identified as a PBT substance.

12.6 Other adverse effects: Negligible ecotoxicity.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal methods: Transfer to a suitable container and arrange for collection by licensed disposal company.

Disposal of packaging: Arrange for collection by specialised disposal company.
The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. TRANSPORT INFORMATION

Transport class: This product does not require a classification for transport.

14.1 to 14.7 subsections do not apply, but as with all chemicals, packages containing this substance should be handled with methods that minimizes the risk of damage to and leakage from packages.

15. REGULATORY INFORMATION

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313**.**

SARA 311/312 Hazards
No SARA Hazards.

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.

16. OTHER INFORMATION

Kit component

Liquid DAB chromogen, Component 2 INNOVEX Biosciences NB314D
For immunohistochemistry

HMIS Ratin

Health hazard: 0
Flammability: 0
Reactivity: 0

NFPA Rating

Health hazard: 0
Flammability: 0
Reactivity: 0

Legal disclaimer:

The above information is believed to be correct but does not purport to be all-inclusive and shall only be used as a guide. Innovex Biosciences, Inc. shall not be held liable for any damage resulting from contact or from handling the above product. Users should make their own investigations to determine the suitability of the information for their specific purposes.