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## SAFETY DATA SHEETS

### Stat-Q, Rat-mouse adsorbed AEC Staining kit

Product No. NB31MAK-AEC

#### SDS

Stable Peroxide Block

Biotin Conjugated Secondary Antibody

Peroxidase-conjugated Streptavidin

AEC Substrate/ Chromogen System

#### Company

Innovex Biosciences Inc.  
1099 Essex Ave  
Richmond CA 94801  
USA

#### Telephone

1-800-622-7808 (USA and Canada)

**Emergency Telephone** 510-234-6600

#### Fax

510-234-4591

#### Email Address

support@innovexbio.com

## SAFETY DATA SHEET

# SDS

## Stable Peroxide Block

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### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Product identifiers

Product name: **Stable Peroxide Block**

**Other name of identification:**

Product number: **HP1000**

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: 510-234-6600

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### 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                                                               | Percent   |                               |
| Ox. Liq. 1: H271; Acute Tox. 4: H332;<br>Acute Tox. 4: H302; Skin Corr. 1A: H314 | 1-3%      |                               |

For the full text of the H-Statements and others mentioned in this Section, see Section 16.

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### 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:** Rise mouth with water. Never give anything by mouth to an unconscious person.

**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.

**Ingestion:** There may be irritation of the throat.

**Inhalation:** There may be mild difficulty in breathing if inhaled in a poorly ventilated room.

**Delayed / immediate effects:** No data available.

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

Not applicable.

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### 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.

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**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 bunding.

**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.

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**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°C.

**7.3 Specific end use(s)**

Use in laboratories – Professional.

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**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 <sup>3</sup> |
| IE      | 1.5 mg/m <sup>3</sup> |
| US      | 1.4 mg/m <sup>3</sup> |
| CA      | 1.4 mg/m <sup>3</sup> |
| AU      | 1.4 mg/m <sup>3</sup> |
| NZ      | —                     |

**DNEL/PNEC Values**

**DNEL / PNEC:** No data available.

**8.2 Exposure controls**

**Engineering measures:** Maintain general industrial hygiene practice.  
Ensure all 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.

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**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

|                                                |                   |
|------------------------------------------------|-------------------|
| <b>Melting point/range °C:</b>                 | No data available |
| <b>Viscosity:</b>                              | No data available |
| <b>Boiling point/range °C:</b>                 | No data available |
| <b>Flammability (solid/gas):</b>               | No data available |
| <b>Flammability (upper/lower) limit:</b>       | No data available |
| <b>Flash point °C:</b>                         | No data available |
| <b>Auto-ignition temperature °C:</b>           | No data available |
| <b>Relative density:</b>                       | No data available |
| <b>VOC g/l:</b>                                | No data available |
| <b>Partition coefficient: n-octanol/water:</b> | No data available |
| <b>Vapor pressure:</b>                         | No data available |
| <b>Explosive properties:</b>                   | No data available |

**9.2 Other information:** Not applicable.

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## 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.

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## 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:** There may be slight discomfort in breathing.

**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/vPvB substance.

**12.6 Other adverse effects:** Negligible ecotoxicity.

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## 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.

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## 14. TRANSPORT INFORMATION

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

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## 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

Acute Health Hazard, Chronic Health Hazard.

### 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 problems.

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## 16. OTHER INFORMATION

### HMIS Rating

Health hazard: 3

Flammability: 0

Reactivity: 0

### NFPA Rating

Health hazard: 3

Flammability: 0

Reactivity: 0

### Full text of the H-Statements and others used in section 2 and 3:

H271: May cause fire or explosion; strong oxidizer.

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.

### Abbreviations and acronyms used:

CLP = Classification, Labeling, and Packaging [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

### 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

### Biotin conjugated Secondary Antibody

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## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product identifiers

**Innovex Biosciences**

Product name: **Biotin conjugated Secondary Antibody**

**Other name of identification:**

Product number: **NB314K and NB314K-20**

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: **510-234-6600**

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**2. HAZARDS IDENTIFICATION**

**2.1 Classification: GHS**  
**Mixture, GHS category 5**  
**Acute Aquatic 3 H402**

**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 GHS label elements, including precautionary statements:**

**GHS Symbol:** none required.

**GHS Hazard statement:** May be harmful if swallowed.

**GHS Precautionary statement:** If swallowed call a poison center/doctor/physician.

**2.3 Other hazards**

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

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### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

#### 3.1 Mixtures

No components need to be disclosed according to the applicable regulations.

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### 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:** Rise mouth with water. Never give anything by mouth to an unconscious person.

**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.

**Ingestion:** There may be irritation of the throat.

**Inhalation:** There may be mild difficulty in breathing if inhaled in a poorly ventilated room.

**Delayed / immediate effects:** No data available.

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

Not applicable.

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### 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

Not flammable or combustible.

#### 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

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 bunding.

### 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.

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## 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 at 2-8°C. Keep container tightly closed.

### 7.3 Specific end use(s)

Use in laboratories - Professional.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

This product or any of its ingredients have no listed OSHA PEL, NIOSH REL, or ACGIH Threshold Limit Values (TLV).

**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 all 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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

**State:** Liquid

**Color:** Yellow

**Odor:** Odorless

**pH :** 7 to 7.4

**Evaporation Rate:** No data available

**Oxidizing Properties:** No data available

**Solubility in water:** Soluble in cold and warm water

**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.

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

This product is chemically stable.

### 10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4 Conditions to avoid

Heat.

### 10.5 Incompatible Materials

No specific data.

### 10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products will not be produced.

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## 11. TOXICOLOGICAL INFORMATION

**11.1 Information on toxicological effects:**

**RTECS#:** VY8050000; **CAS#** 26628-22-8; **EC#** 247-852-1

**RTECS#:** V24725000; **CAS#** 7647-14-5; **EC#** 231-598-3

**Acute toxicity:**

**Sodium Azide:** Oral Rat, LD50, 27 mg/kg

**Sodium Chloride:** Oral Rat, LD50, 3,000 mg/kg

**Sodium Phosphate:** Oral Rat, LD50, 17,000 mg/kg

**Antibody/Serum Protein:** Not established

**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 known significant effects or critical hazards

**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:** Avoid release into environment.

**12.2 Persistence and degradability:** Biodegradable.

**12.3 Bioaccumulative potential:** No bioaccumulation potential.

**12.4 Mobility in soil:** No data available.

**12.5 Results of PBT and vPvB assessment:** This product is not identified as a PBT/vPvB 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:** Dispose of as normal industrial waste. The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

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## 14. TRANSPORT INFORMATION

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

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## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations specific for the product in question: EU Regulation (EC) No. 1907/2006 (REACH):

Annex XIV- List of substances subject to authorization:

Substance of very high concern: None of the components are listed.

Annex XVII- Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

### 15.2 Other EU Regulations:

**Europe inventory:** Not determined.

**Black List Chemicals:** Not listed.

**Priority List Chemicals:** Not listed.

**Integrated pollution prevention and control list (IPPC) – Air:** Not listed.

**IPPC- Water:** Not listed.

### 15.3 National regulations: Data not available.

**United States of America GHS**

### 15.4 SARA Reporting Requirements: This product is not subject to Section 302, 304 and 313 reporting requirements under the Superfund Amendment and Reauthorization Act.

**Chemical SARA 302, SARA 304 and SARA 313**

**SARA Threshold Planning Quantity:** N/A

**TSCA Inventory Status:** N/A

**CERCLA Reporting Quantity (RQ):** N/A

**Other Federal Regulations:** N/A

## 16. OTHER INFORMATION

### Abbreviations and acronyms used:

CLP = Classification, Labeling, and Packaging [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

PNEC - Predicted No Effect Concentration

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]: Not classified

Literature used in preparation of this GHS/SDS: Globally Harmonized System of Classification and Labeling of Chemicals

(GHS), Fourth Revised Edition, United Nations, New York and Geneva, 2011

**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

## Peroxidase-conjugated Streptavidin

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### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Product identifiers

Product name: **Peroxidase-conjugated Streptavidin**

**Other name of identification:**

Product number: **NB314L and NB314L-20**

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: **510-234-6600**

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### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification : GHS

**Mixture, not a hazardous substance.**

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

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

#### 2.2 GHS label elements, including precautionary statements:

**Not a hazardous substance.**

**GHS Symbol:** not required.

**GHS Hazard statement:** Not a hazardous substance

**GHS Precautionary statement:** None

**2.3 Other hazards**

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

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### **3. COMPOSITION/ INFORMATION ON INGREDIENTS**

**3.1 Mixtures**

No components need to be disclosed according to the applicable regulations.

---

### **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:** Rise mouth with water. Never give anything by mouth to an unconscious person.

**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.

**Ingestion:** There may be irritation of the throat.

**Inhalation:** There may be mild difficulty in breathing if inhaled in a poorly ventilated room.

**Delayed / immediate effects:** No data available.

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

Not applicable.

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### **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**

Not flammable or combustible.

**5.3 Advice for fire-fighters**

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

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**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

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 bunding.

**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.

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**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 at 2-8°C. Keep container tightly closed.

**7.3 Specific end use(s)**

Use in laboratories - Professional.

---

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 Control parameters**

This product or any of its ingredients have no listed OSHA PEL, NIOSH REL, or ACGIH Threshold Limit Values (TLV).

**DNEL/PNEC Values**

**DNEL / PNEC:** No data available.

**8.2 Exposure controls**

**Engineering measures:** Maintain general industrial hygiene practice.  
Ensure all 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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

**State:** Liquid

**Color:** Red

**Odor:** Odorless

**pH :** 7.2-7.4

**Evaporation Rate:** No data available

**Oxidizing Properties:** No data available

**Solubility in water:** Soluble in cold and warm water

**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.

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

This product is chemically stable.

### 10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4 Conditions to avoid

Heat.

### 10.5 Incompatible Materials

No specific data.

### 10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products will not be produced.

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects: RTECS#: V24725000; CAS# 7647-14-5; EC# 231-598-3

**Acute toxicity:**

**Sodium Chloride:** Oral Rat, LD50, 3,000 mg/kg

**Sodium Phosphate:** Oral Rat, LD50, 17,000 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 known significant effects or critical hazards.

**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:** Avoid release into environment.

**12.2 Persistence and degradability:** Biodegradable.

**12.3 Bioaccumulative potential:** No bioaccumulation potential.

**12.4 Mobility in soil:** No data available.

**12.5 Results of PBT and vPvB assessment:** This product is not identified as a PBT/vPvB 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:** 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

### 15.1 Safety, health, and environmental regulations specific for the product in question:

**EU Regulation (EC) No. 1907/2006 (REACH):**

Annex XIV - List of substances subject to authorization:

Substances of very high concern: None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market, and use of certain dangerous substances, mixtures, and articles: Not applicable

### 15.2 Other EU Regulations:

**Europe inventory:** Not determined.

**Black List Chemicals:** Not listed.

**Priority List Chemicals:** Not listed.

**Integrated pollution prevention and control list (IPPC) - Air:** Not listed.

**IPPC- Water:** Not listed.

### 15.3 National regulations: Data not available

**United States of America GHS**

### 15.4 SARA Reporting Requirements: This product is not subject to Section 302, 304, and 313 reporting requirements under the Superfund Amendment and Reauthorization Act.

**Chemical SARA 302, SARA 304, and SARA 313**

**SARA Threshold Planning Quantity:** N/A

**TSCA Inventory Status:** N/A

**CERCLA Reporting Quantity (RQ):** N/A

**Other Federal Regulations:** N/A

## 16. OTHER INFORMATION

**Abbreviations and acronyms used:**

CLP = Classification, Labeling, and Packaging [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

PNEC - Predicted No Effect Concentration

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]: Not classified

Literature used in preparation of this GHS/SDS: Globally Harmonized System of Classification and Labeling of Chemicals (GHS), Fourth Revised Edition, United Nations, New York and Geneva, 2011

**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

### AEC Substrate/ Chromogen System

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#### 1. PRODUCT AND COMPANY IDENTIFICATION

##### 1.1 Product identifiers

Product name: **AEC Substrate/ Chromogen System**

**Other name of identification:**

Product number: **NB314SCS**

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.**

##### 1.3 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: **510-234-6600**

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#### 2. HAZARDS IDENTIFICATION

**Innovex Biosciences**

## 2.1 Classification of the substance or mixture

### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315

Eye damage (Category 1), H318

For the full detail of the H-Statements mentioned in this Section, see Section 16.

## 2.2 GHS Label elements including precautionary statements

### Pictogram



**Signal word**                      Danger

### Hazard statement(s)

|      |                                           |
|------|-------------------------------------------|
| H315 | Causes skin irritation.                   |
| H318 | Causes eye damage.                        |
| H350 | May cause cancer                          |
| H360 | May damage fertility or the unborn child. |

### Precautionary statement(s)

|                    |                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P264               | Wash skin thoroughly after handling.                                                                                             |
| P280               | Wear protective gloves/ eye protection/ face protection.                                                                         |
| P302 + P352        | IF ON SKIN: Wash with plenty of soap and water.                                                                                  |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310               | Immediately call a POISON CENTER or doctor/ physician.                                                                           |
| P321               | Specific treatment (see supplemental first aid instructions on this label).                                                      |
| P332 + P313        | If skin irritation occurs: Get medical advice/ attention.                                                                        |
| P362               | Take off contaminated clothing and wash before reuse.                                                                            |

## 2.3 Other hazards

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

---

## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

### 3.1 Mixtures

#### Ingredients:

| Chemical Name     | CAS-No    | Weight % | Classification (Reg. 1272/2008)                                                                             |
|-------------------|-----------|----------|-------------------------------------------------------------------------------------------------------------|
| AEC               | 132-32-1  | 0.1-1    | Acute Tox. 3 (H301)<br>Carc. 1B (H350)                                                                      |
| DMF               | 68-12-2   | 1-5      | Eye Irrit. 2 (H319)<br>Repr. 1B (H360D)<br>Acute Tox. 4 (H312)<br>Acute Tox. 4 (H332)<br>Flam Liq. 3 (H226) |
| Hydrogen peroxide | 7722-84-1 | <0.1     | Acute Tox. 4 (H302)<br>Acute Tox. 4 (H332)<br>Skin Corr. 1A (H314)<br>Eye Dam. 1 (H318)                     |

For the full detail of the H-Statements mentioned in this Section, see Section 16

---

## 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. Remove any contact lenses and continue flushing for 15 minutes. Seek medical advice.

**Ingestion:** Do not induce vomiting. 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 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.

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## 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 bunding.

### 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°C.

**7.3 Specific end use(s)**

Use in laboratories - Professional.

---

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**
**8.1 Control parameters****Exposure Guidelines:**

| <b>Chemical Name</b>           | <b>ACGIH TLV</b>  | <b>OSHA PEL</b>                                                                                     | <b>NIOSH IDLH</b>                          |
|--------------------------------|-------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------|
| Hydrogen peroxide<br>7722-84-1 | TWA: 1 ppm        | TWA: 1 ppm TWA: 1.4 mg/m3<br>(vacated) TWA: 1 ppm (vacated)<br>TWA: 1.4 mg/m3                       | IDLH: 75 ppm<br>TWA: 1 ppm TWA: 1.4 mg/m3  |
| DMF<br>68-12-2                 | TWA: 10 ppm<br>S* | TWA: 10 ppm TWA: 30 mg/m3<br>(vacated) TWA: 10 ppm (vacated)<br>TWA: 30 mg/m3<br>(vacated) S*<br>S* | IDLH: 500 ppm<br>TWA: 10 ppm TWA: 30 mg/m3 |

NIOSH IDLH: Immediately Dangerous to Life or Health

**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.

**Hygiene Measures:** When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

**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

|                                                |                   |
|------------------------------------------------|-------------------|
| <b>State:</b>                                  | Liquid            |
| <b>Odor:</b>                                   | Odorless          |
| <b>pH:</b>                                     | No data available |
| <b>Evaporation Rate:</b>                       | No data available |
| <b>Oxidizing Properties:</b>                   | No data available |
| <b>Solubility in water:</b>                    | No data available |
| <b>Melting point/range °C:</b>                 | No data available |
| <b>Viscosity:</b>                              | No data available |
| <b>Boiling point/range °C :</b>                | No data available |
| <b>Flammability (solid/gas):</b>               | No data available |
| <b>Flammability (upper/lower) limit:</b>       | No data available |
| <b>Flash point °C :</b>                        | No data available |
| <b>Auto-ignition temperature °C :</b>          | No data available |
| <b>Relative density:</b>                       | No data available |
| <b>VOC Content g/l :</b>                       | No data available |
| <b>Partition coefficient: n-octanol/water:</b> | No data available |
| <b>Vapor pressure:</b>                         | No data available |
| <b>Explosive properties:</b>                   | 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**

No data available.

**10.6 Hazardous decomposition products**

In combustion emits toxic fumes.

---

**11. TOXICOLOGICAL INFORMATION**
**11.1 Information on toxicological effects****Toxicity values:**

| Chemical Name     | LD50 Oral         | LD50 Dermal                            | LC50 Inhalation    |
|-------------------|-------------------|----------------------------------------|--------------------|
| DMF               | 200 mg/kg ( Rat ) | 3.2 g/kg ( Rat )                       |                    |
| AEC               | 144 mg/kg (Rat)   |                                        |                    |
| Hydrogen peroxide | 801 mg/kg ( Rat ) | 4060 mg/kg ( Rat ) 2000 mg/kg (Rabbit) | 2 mg/L ( Rat ) 4 h |

**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

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity values:

The environmental impact of this product has not been fully investigated.

| Chemical Name     | Toxicity to algae                                  | Toxicity to fish                                                                                                                                                                 | Toxicity to daphnia and other aquatic invertebrates                                                                                                            |
|-------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMF               | 500: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50 | 6300: 96 h <i>Lepomis macrochirus</i> mg/L LC50<br>9800: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50<br>flow-through 10410: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through | 7500: 48 h <i>Daphnia magna</i> mg/L EC50<br>8485: 48 h <i>Daphnia magna</i> mg/L EC50<br>semi-static 6800 - 13900: 48 h <i>Daphnia magna</i> mg/L EC50 Static |
| Hydrogen peroxide | 2.5: 72 h <i>Chlorella vulgaris</i> mg/L EC50      | 16.4: 96 h <i>Pimephales promelas</i> mg/L LC50<br>18-56: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static<br>10.0-32.0: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static        | 7.7: 24 h <i>Daphnia magna</i> mg/L EC50<br>18 - 32: 48 h <i>Daphnia magna</i> mg/L EC50 Static                                                                |

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

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

**Contaminated packaging:** Do not re-use empty containers.

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

This product contains one or more substances that are listed with the State of California as a hazardous waste.

**Chemical Name**

Hydrogen peroxide

**California Hazardous Waste Status**

Toxic Corrosive Ignitable Reactive

## 14. TRANSPORT INFORMATION

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

**DOT:** Not dangerous goods.

**IATA:** Not dangerous goods.

**ADR:** Not dangerous goods.

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 313 Components

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

|               |         |
|---------------|---------|
| Chemical Name | CAS-No. |
| DMF           | 68-12-2 |

### SARA 311/312 Hazards

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | Yes |
| Chronic Health Hazard             | Yes |
| Fire Hazard                       | No  |
| Sudden Release of Pressure Hazard | No  |
| Reactive Hazard                   | No  |

### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

| Chemical Name     | Hazardous Substances RQs | Extremely Hazardous Substances RQs | RQ                            |
|-------------------|--------------------------|------------------------------------|-------------------------------|
| DMF               | 100 lb                   |                                    | RQ 100 lb final RQ RQ 45.4 kg |
| final             |                          |                                    | RQ                            |
| Hydrogen peroxide |                          | 1000 lb                            |                               |

**U.S. State Regulations****California Prop. 65 Components**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations****Massachusetts Right To Know Components**

|                   |           |
|-------------------|-----------|
|                   | CAS-No.   |
| DMF               | 68-12-2   |
| Hydrogen peroxide | 7722-84-1 |

**New Jersey Right To Know Components**

|                   |           |
|-------------------|-----------|
|                   | CAS-No.   |
| DMF               | 68-12-2   |
| Hydrogen peroxide | 7722-84-1 |

**Pennsylvania Right To Know Components**

|                   |           |
|-------------------|-----------|
|                   | CAS-No.   |
| DMF               | 68-12-2   |
| Hydrogen peroxide | 7722-84-1 |

**Illinois Right To Know Components**

|     |         |
|-----|---------|
|     | CAS-No. |
| DMF | 68-12-2 |

**Rhoda Island Right To Know Components**

|                   |           |
|-------------------|-----------|
|                   | CAS-No.   |
| DMF               | 68-12-2   |
| Hydrogen peroxide | 7722-84-1 |

**16. OTHER INFORMATION**

**Kit component**

Liquid AEC Substrate/ Chromogen  
For immunohistochemistry

INNOVEX Biosciences NB314SCS

**Full detail of the H-Statements mentioned in Section 2 and 3:**

H315: Causes skin irritation.

H318: Causes serious eye damage.

H226 - Flammable liquid and vapor.

H301 - Toxic if swallowed.

H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage

H319 - Causes serious eye irritation.

H350- May cause cancer if swallowed.

H360D - May damage the unborn child.

**Hazard statements**

H319 - Causes serious eye irritation.

H350 - May cause cancer.

H360 - May damage fertility or the unborn child

**Abbreviations and acronyms used:**

DNEL = Derived No Effect Level

PNEC - Predicted No Effect Concentration

**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.