

# ***Ready Set Go, Biotin/Streptavidin-HRP/Blue Chromogen Antibody Labeling and Detection Kit***

## **MATERIAL SAFETY DATA SHEET**

### **Section 1: Identification of the substance/mixture and of the company/undertaking**

#### **1.1: Product Identifier**

**Product Name:** Ready Set Go, Biotin/Streptavidin-HRP/Blue Chromogen Antibody Labeling and Detection Kit  
**Catalog No.:** RSGOB-002  
**Kit Components :** Biotin-labeling Kit

Chemical Name
Component A: Biotin-PEG4-NHS ester
Component B: Reaction buffer
Component C: Quench buffer

#### **1.2: Product Uses**

**For Research Use Only. Not intended for human or animal diagnostic products.**

#### **1.3: Company/undertaking Identification**

Cell IDx, Inc.  
6197 Cornerstone Court E, Ste 102  
San Diego, CA 92121  
858.452.5800

### **Section 2: Hazardous Identification**

#### **2.1: Classification of the substance or material**

GHS-US classification

#### **2.2: Label Elements**

GHS-US labeling  
No label applicable

#### **2.3: Other Hazards**

No additional information available

#### **2.4: Principle Routes of Exposure/Potential Health Effects**

May cause eye irritation with susceptible persons.

### **Section 3: Composition/information on ingredients**

Chemical Name	CAS#	EINECS#	Appearance	Water Solubility
Component A: Biotin-PEG4-NHS ester	459426-22-3		Oily solid	Moderate
Component B: Reaction buffer			Liquid	High
Component C: Quench buffer			Liquid	High

This product contains no substances which at their given concentration are considered to be hazardous to health.

## Section 4: First Aid Measures

### Skin contact

Rinse cautiously with water for several minutes. Immediate medical attention is not required.

### Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

### Ingestion

Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

### Inhalation

Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

### Most important symptoms and effects, both acute and delayed

Not Applicable

### Notes to Physician

Treat symptomatically.

## Section 5: Firefighting measures

### Suitable extinguishing media Special protective equipment for firefighters

Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical. Standard procedure for chemical fires.

### Specific hazards arising from the chemical

Not known

## Section 6: Accidental release measures

### Personal precautions

Always wear recommended Personal Protective Equipment. Use personal protection equipment.

### Methods for cleaning up Environmental precautions

Soak up with inert absorbent material. No special environmental precautions required

## Section 7: Handling and Storage

### Handling

Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

### Storage

Keep in a dry, cool and well-ventilated place

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available.

### 8.2. Exposure controls

#### Appropriate engineering controls:

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

#### Hand protection:

Wear suitable gloves.

#### Eye protection:

Safety glasses or goggles are recommended when handling product.

#### Skin and body protection:

Wear suitable protective clothing.

#### Respiratory protection:

Not normally needed. In case of insufficient ventilation wear suitable respiratory equipment.

#### Environmental exposure controls:

Maintain levels below Community environmental protection thresholds.

Other information:

Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Lyophilized powder
Appearance:	No information available
Color:	No information available
Odour:	No data available
Odour threshold:	No data available
pH:	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	No data available
Flash point:	No data available
Relative evaporation rate (butylacetate=1):	No data available
Flammability (solid, gas):	Not flammable
Explosive limits:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Vapor pressure:	No data available
Relative density:	No data available
Relative vapour density at 20 °C:	No data available
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Log Kow:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available

## Section 10: Stability and reactivity

<b>Stability</b>	Stable under normal conditions.
<b>Materials to avoid</b>	No dangerous reaction known under conditions of normal use.
<b>Possibility of hazardous reactions</b>	Hazardous reaction has not been reported
<b>Hazardous decomposition products</b>	None under normal use conditions
<b>Polymerization</b>	Hazardous polymerization does not occur
<b>Conditions to avoid</b>	None under normal processing

## Section 11: Toxicological information

**Acute Toxicity** No toxicology information is available.

### Principle Routes of Exposure

#### Potential Health Effects

Eyes	May cause eye irritation with susceptible persons.
Skin	May cause skin irritation in susceptible persons.
Inhalation	May be harmful by inhalation.
Ingestion	May be harmful if swallowed.

<b>Carcinogenic effects</b>	None.
<b>Mutagenic effects</b>	None.
<b>Reproductive toxicity</b>	None.
<b>Sensitization</b>	None.

## **Section 12: Ecological information**

<b>Ecotoxicity</b>	Contains no substances known to be hazardous to the environment or not degradable in wastewater treatment plants.
<b>Mobility</b>	No information available.
<b>Biodegradation</b>	Inherently biodegradable.
<b>Bioaccumulation</b>	Material does not bioaccumulate.

## **Section 13: Disposal considerations**

<b>13.1 Waste treatment Recommendations</b>	This material must be disposed of in accordance with all local, state, provincial and federal regulations. The generation of waste should be avoided or minimized wherever possible.
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## **Section 14: Transport information**

Department of Transportation (DOT)	In accordance with DOT
Not regulated for transport.	
Other information	No supplementary information available
Special transport precautions	No not handle until all safety precautions have been read and understood.

## **Section 15: Regulatory information**

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

## **Section 16: Other information**

Other information: None.

## MATERIAL SAFETY DATA SHEET

### Section 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1: Product Identifier

**Product Name:** Ready Set Go, Biotin/Streptavidin-HRP/Blue Chromogen Antibody Labeling and Detection Kit  
**Catalog No.:** RSGOB-002  
**Kit Component:** StAv-HRP

#### 1.2: Product Uses

**For Research Use Only. Not intended for human or animal diagnostic products.**

#### 1.3: Company/undertaking Identification

Cell IDx, Inc.  
6197 Cornerstone Court E, Ste 102  
San Diego, CA 92121  
info@cellidx.com  
858.452.5800

### Section 2: Hazardous Identification

#### 2.1: Classification of the substance or material

GHS-US classification

#### 2.2: Label Elements

GHS-US labeling  
No label applicable

#### 2.3: Other Hazards

No additional information available

#### 2.4: Principle Routes of Exposure/Potential Health Effects

May cause eye irritation with susceptible persons.

### Section 3: Composition/information on ingredients

Chemical Name	CAS number	EINECS- number	Weight
StAv-HRP conjugate	None		100%

This product contains no substances which at their given concentration are considered to be hazardous to health.

### Section 4: First Aid Measures

#### Skin contact

Rinse cautiously with water for several minutes. Immediate medical attention is not required.

#### Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

#### Ingestion

Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

<b>Inhalation</b>	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
<b>Most important symptoms and effects, both acute and delayed</b>	Not Applicable

<b>Notes to Physician</b>	Treat symptomatically.
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### **Section 5: Firefighting measures**

<b>Suitable extinguishing media</b>	Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical.
<b>Special protective equipment for firefighters</b>	Standard procedure for chemical fires.
<b>Specific hazards arising from the chemical</b>	Not known

### **Section 6: Accidental release measures**

<b>Personal precautions</b>	Always wear recommended Personal Protective Equipment.
<b>Methods for cleaning up</b>	Use personal protection equipment.
<b>Environmental precautions</b>	Soak up with inert absorbent material. No special environmental precautions required

### **Section 7: Handling and Storage**

<b>Handling</b>	Always wear recommended Personal Protective Equipment.
<b>Storage</b>	No special handling advices are necessary. Keep in a dry, cool and well-ventilated place

### **Section 8: Exposure controls/personal protection**

**8.1. Control parameters**  
No additional information available.

<b>8.2. Exposure controls</b>	
Appropriate engineering controls:	Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection:	Wear suitable gloves.
Eye protection:	Safety glasses or goggles are recommended when handling product.
Skin and body protection:	Wear suitable protective clothing.
Respiratory protection:	Not normally needed. In case of insufficient ventilation wear suitable respiratory equipment.
Environmental exposure controls:	Maintain levels below Community environmental protection thresholds.
Other information:	Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

### **Section 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**  
Physical state: Lyophilized powder

Appearance:	No information available
Color:	No information available
Odour:	No data available
Odour threshold:	No data available
pH:	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	No data available
Flash point:	No data available
Relative evaporation rate (butylacetate=1):	No data available
Flammability (solid, gas):	Not flammable
Explosive limits:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Vapor pressure:	No data available
Relative density:	No data available
Relative vapour density at 20 °C:	No data available
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Log Kow:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available

## Section 10: Stability and reactivity

<b>Stability</b>	Stable under normal conditions.
<b>Materials to avoid</b>	No dangerous reaction known under conditions of normal use.
<b>Possibility of hazardous reactions</b>	Hazardous reaction has not been reported
<b>Hazardous decomposition products</b>	None under normal use conditions.
<b>Polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	None under normal processing

## Section 11: Toxicological information

<b>Acute Toxicity</b>	No toxicology information is available.
<b>Principle Routes of Exposure</b>	
<b>Potential Health Effects</b>	
Eyes	May cause eye irritation with susceptible persons.
Skin	May cause skin irritation in susceptible persons.
Inhalation	May be harmful by inhalation.
Ingestion	May be harmful if swallowed.
<b>Carcinogenic effects</b>	None.
<b>Mutagenic effects</b>	None.
<b>Reproductive toxicity</b>	None.
<b>Sensitization</b>	None.

## Section 12: Ecological information

<b>Ecotoxicity</b>	Contains no substances known to be hazardous to the environment or not degradable in wastewater treatment plants.
<b>Mobility</b>	No information available.

**Biodegradation**  
**Bioaccumulation**

Inherently biodegradable.  
Material does not bioaccumulate.

### **Section 13: Disposal considerations**

#### **13.1 Waste treatment Recommendations**

This material must be disposed of in accordance with all local, state, provincial and federal regulations. The generation of waste should be avoided or minimized wherever possible.

### **Section 14: Transport information**

Department of Transportation (DOT)  
Not regulated for transport.  
Other information  
Special transport precautions

In accordance with DOT  
  
No supplementary information available  
Do not handle until all safety precautions have been read and understood.

### **Section 15: Regulatory information**

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

### **Section 16: Other information**

Other information: None.

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## MATERIAL SAFETY DATA SHEET

### Section 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1: Product Identifier

Product Name: Ready Set Go, Biotin/Streptavidin-HRP/Blue Chromogen Antibody Labeling and Detection Kit

Catalog No.: RSGOB-002

Kit Component: HRP-Blue chromogen (50x)

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

Recommended use: Immunohistochemistry (IHC)

#### 1.3. Details of the supplier of the safety data sheet

MANUFACTURER EMAIL ADDRESS: info@cellidx.com

Cell IDx, Inc.  
6197 Cornerstone Court E, Ste 102  
San Diego, CA 92121

#### 1.4. Emergency telephone number

9 am-5 pm PST, M-F 858.452.5800

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the mixture

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

Acute toxicity, Oral (Category 4), H302  
Eye irritation (Category 2A), H319  
Germ cell mutagenicity (Category 2), H341  
Carcinogenicity (Category 1B), H350

Component	Classification	Concentration
<b>Biphenyl-3,3',4,4'-tetrayltetraammonium tetrachloride</b>		
	Acute Tox. 4; Eye Irrit. 2A; Muta. 2; Carc. 1B; H302, H319, H341, H350	<= 5%
Component	Classification	Concentration
<b>Propane-1,2-diol</b>		
		<= 60%
Component	Classification	Concentration
<b>Hydroxynaphthalene hydrocarbon</b>		
	Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H319, H335	<=1%

#### 2.2. GHS label elements

**Danger**



Harmful if swallowed  
 Suspected of causing genetic defects.  
 May cause cancer.  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Wash hands thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 IF exposed or concerned: Get medical advice/attention.  
 IF eye irritation persists: Get medical advice/attention.  
 Store locked up.  
 Dispose of contents/container to an approved waste disposal plant

### 2.3. Other hazards which do not result in classification

None

## SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

Description	CAS#	EINECS#	%
Biphenyl-3,3',4,4'-tetrayltetraammonium tetrachloride	7411-49-6	231-018-9	2 - 5
Hydroxynaphthalene hydrocarbon	5111-66-0	N/A	0.5 - 1
1,2-propane-diol	57-55-6	200-338-0	50 - 60

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General Advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

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

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

#### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

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

No data available

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **5.2. Special hazards arising from the substance or mixture**

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

### **5.3. Special advice for firefighters**

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 let product enter drains.

### **6.3. Methods and material for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Avoid 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 with desiccant. Keep container tightly closed in a dry and well-ventilated place

Recommended storage temperature 4°C.

Light sensitive

Storage class (TRGS 510) Non-combustible, acute toxic Cat.3/ toxic hazardous materials or hazardous materials causing chronic effects.

## **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	10.000000 mg/m <sup>3</sup>	USA. Workplace Environmental Exposure Levels (WEEL)

### **8.2 Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 8.3 Exposure controls

#### Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU)

#### Skin Protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (with touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable law and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material Tested: Dermatrill (KCL 740/Aldrich Z677272, size M)

Splash Contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material Tested: Dermatrill (KCL 740/Aldrich Z677272, size M)

Data Source: KCL GmgH, D-36124 Eichenzell, phone +49 90)6659 87300, e-mail [sales@kcl.de](mailto:sales@kcl.de), test method EN374

If used in solution or mixe with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of dangerous substance at the specific workplace.

#### Respiratory Protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Appearance	Form: Liquid
	Color: tan/purple
Odor	No Data Available
Odor Threshold	No Data Available
pH	No Data Available
Melting Point/Freezing Point	No Data Available
Initial Boiling Point	No Data Available

Flash Point	No Data Available
Evaporation Rate	No Data Available
Flammability (Solid, Gas)	No Data Available
Upper/Lower Flammability or explosive limits	No Data Available
Vapour Pressure	No Data Available
Vapour Density	No Data Available
Relative Density	No Data Available
Water Solubility	Soluble
Partition Coefficient	No Data Available
Auto-ignition Temperature	No Data Available
Decomposition Temperature	No Data Available
Viscosity	No Data Available
Explosive Properties	No Data Available
Oxidizing Properties	No Data Available

**9.2. Other information** None

## **SECTION 10: STABILITY AND REACTIVITY**

### **10.1. Reactivity**

No data available

### **10.2. Chemical stability**

May darken on storage

Stable under recommended storage conditions

### **10.3. Possibility of hazardous reactions**

No data available

### **10.4. Conditions to avoid**

Avoid exposure to moisture or light.

### **10.5. Incompatible materials**

Materials To Avoid

Acid chlorides, Acid anhydrides, Oxidizing agents, Chloroformates, Reducing agents

### **10.6. Hazardous decomposition products**

Other decomposition products – No data available

## **SECTION 11: TOXICOLOGICAL INFORMATION**

### **11.1. Information on toxicological effects**

**Acute toxicity:** No Data Available

**Acute Toxicity (Oral LD50)** Mouse 330 mg/kg

**Skin Corrosion/Irritation:** No Data Available

**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

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.  
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.  
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA

**Reproductive Toxicity** No Data available

**Specific target organ toxicity:**

Single Exposure No Data Available  
Repeated Exposure No Data Available

**Aspiration hazard:** No Data Available

**Additional Information**

RTECS: DV8753000

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

## **SECTION 12: ECOLOGICAL INFORMATION**

### **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**

No data available

### **12.3. Bio accumulative potential**

No data available

### **12.4. Mobility in soil**

No data available

### **12.5. Other adverse effects**

Not determined

## **SECTION 13: DISPOSAL CONSIDERATIONS**

### **13.1 Disposal Methods**

#### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste

disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### **Contaminated Packaging**

Dispose of as unused product

### **SECTION 14: TRANSPORTATION INFORMATION**

#### **14.1. UN number**

Not applicable.

#### **14.2. DOT (US)**

Not dangerous good

#### **14.3. Transport hazard class(es)**

Not dangerous goods.

#### **14.4. IMDG**

Not dangerous goods

#### **14.5. IATA**

Not dangerous good

### **SECTION 15: REGULATORY INFORMATION**

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

##### **SARA 302 Component**

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

##### **SARA 312 Component**

This material does not contain any chemical components with known CSA 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
Hydroxynaphthalene hydrocarbon	CAS-No. 5111-66-0

##### **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.

Approved Code Of Practice

### **SECTION 16: OTHER INFORMATION**

#### **Full text of H-Statements referred to under sections 2 and 3.**

Acute Tox.	Acute toxicity
Carc.	Carcinogenicity
Eye Irrit.	Eye irritation
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.

H350  
Muta. May cause cancer.  
Germ cell mutagenicity

**HMIS Rating**

Health hazard:	2
Chronic Health Hazard:	*
Flammability:	0
Physical Hazard	0

**NFPA Rating**

Health hazard:	2
Fire Hazard:	0
Reactivity Hazard:	0

**Further information**

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



## MATERIAL SAFETY DATA SHEET

### Section 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1: Product Identifier

**Product Name:** Ready Set Go, Biotin/Streptavidin-HRP/Blue Chromogen Antibody Labeling and Detection Kit  
**Catalog No.:** RSGOB-002  
**Kit Component:** HRP-Blue Buffer (1X)

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

**Recommended use:** Immunohistochemistry (IHC)

#### 1.3. Details of the supplier of the safety data sheet

**MANUFACTURER** EMAIL ADDRESS:  
Cell IDx, Inc. info@cellidx.com  
6197 Cornerstone Court E, Ste 102  
San Diego, CA 92121

#### 1.4. Emergency telephone number

9 am-5 pm PST, M-F 858.452.5800

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the mixture

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

Skin corrosion (Category 1B), H314  
Serious eye Damage (Category 1), H318  
Reproductive toxicity (Category 1B), H360

#### 2.2. GHS label elements

**Danger**



Cause severe skin burns and eye damage  
May damage fertility or an unborn child  
Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wash hands thoroughly after handling  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
IF ON SKIN/Hair: Remove/Take off immediately all contaminated clothing. Rinse SKIN with water/shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

#### 2.3. Other hazards which do not result in classification

None

**Substance/mixture:** Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

### **SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS**

<b>Description</b>	<b>CAS#</b>	<b>EINECS#</b>	<b>%</b>
Sodium dihydrogen citrate	18996-35-5	201-069-1	0.5-1

### **SECTION 4: FIRST AID MEASURES**

#### **4.1. Description of first aid measures**

##### **General Advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

##### **If inhaled**

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

##### **In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

##### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

##### **If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

##### **Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### **4.3 Indication of immediate medical attention and special treatment needed, if necessary**

No data available

### **SECTION 5: FIREFIGHTING MEASURES**

#### **5.1. Extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **5.2. Special hazards arising from the substance or mixture**

Carbon oxides, Nitrogen oxides (NOx), Hydrogen cyanide (hydrocyanic acid), Ammonia

#### **5.3. Special advice for firefighters**

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 let product enter drains.

### **6.3. Methods and material for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Avoid inhalation of vapor or mist.

For precautions, see section 2.2

### **7.2. Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

#### **Components with workplace control parameters**

Contains no substance with occupational exposure limit values.

### **8.2 Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### **8.3 Exposure controls**

#### **Eye/face protection**

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin Protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (with touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable law and good laboratory practices. Wash and dry hands.

#### **Full contact**

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

#### **Splash Contact**

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material Tested: Dermatrill (KCL 740/Aldrich Z677272, size M)

Data Source: KCL GmGH, D-36124 Eichenzell, phone +49 90)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **Body Protection**

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of dangerous substance at the specific workplace.

### Respiratory Protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### 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	Form: Liquid
	Color: Clear
Odor	No Data Available
Odor Threshold	No Data Available
pH	6.0
Melting Point/Freezing Point	No Data Available
Initial Boiling Point	No Data Available
Flash Point	No Data Available
Evaporation Rate	No Data Available
Flammability (Solid, Gas)	No Data Available
Upper/Lower Flammability or explosive limits	No Data Available
Vapour Pressure	No Data Available
Vapour Density	No Data Available
Relative Density	1.01 g/cm <sup>3</sup> at 20 °C (68 °F)
Water Solubility	No Data Available
Partition Coefficient	No Data Available
Auto-ignition Temperature	No Data Available
Decomposition Temperature	No Data Available
Viscosity	No Data Available
Explosive Properties	No Data Available
Oxidizing Properties	No Data Available

### 9.2. Other information

None

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

Stable under recommended storage conditions

### 10.3. Possibility of hazardous reactions

No data available

### 10.4. Conditions to avoid

No data available

### 10.5. Incompatible materials

Materials To Avoid  
Acid, Acid anhydrides, Strong Oxidizing agents

#### 10.6. Hazardous decomposition products

Other decomposition products – No data available

In the event of fire: see Section 5

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

**Acute toxicity:** No Data Available

**Inhalation:** No Data Available

**Dermal:** No Data Available

**Skin Corrosion/Irritation:** 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

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA

**Reproductive Toxicity** No Data available

#### **Specific target organ toxicity:**

Single Exposure No Data Available

Repeated Exposure No Data Available

**Aspiration hazard:** No Data Available

#### **Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

### 11.2. Information on the likely routes of exposure

#### Potential acute health effects

Eye Contact	Not Available
Inhalation	No known significant effects or critical hazards
Skin Contact	No known significant effects or critical hazards
Ingestion	No known significant effects or critical hazards

#### 11.3. Symptoms related to the physical, chemical and toxicological characteristics

Eye Contact	No specific data
Inhalation	No known significant effects or critical hazards
Skin contact	No specific data
Ingestion	No Specific Data

#### 11.4. Delayed and immediate effects and also chronic effects from short- and long-term exposure

##### Delayed and immediate effects and also chronic effects from short- and long-term exposure

Short term exposure	Not available.
Potential immediate effects	Not available
Potential delayed effects	Not available.

##### Long term exposure

Potential immediate effects	Not available.
Potential delayed effects	Not available.

##### Potential chronic health effects

General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

#### 11.5. Numerical measure of toxicity (such as acute toxicity estimates)

Not available

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

No data available

### 12.2. Persistence and degradability

No data available

### 12.3. Bio accumulative potential

No data available

### 12.4. Mobility in soil

No data available

### 12.5. Other adverse effects

Not determined

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal Methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated Packaging**

Dispose of as unused product

**SECTION 14: TRANSPORTATION INFORMATION****14.1. UN number/UN Proper Shipping Name**

Not applicable.

**14.2. DOT (US)**

Not dangerous good

**14.3. Transport hazard class(es)**

Not dangerous goods.

**14.4. IMDG**

Not dangerous goods

**14.5. IATA**

Not dangerous good

**SECTION 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****SARA 302 Component**

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 Component**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts, New Jersey, Pennsylvania Right to Know Components**

Sodium dihydrogen citrate                      CAS-No. 18996-35-5

**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.

**SECTION 16: OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3.**

Acute Tox.	Acute toxicity
Eye Dam.	Serious eye damage
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

H360	May damage fertility or the unborn child.
Repr.	Reproductive toxicity
Skin Corr.	Skin corrosion

**HMIS Rating**

Health hazard:	1
Chronic Health Hazard:	0
Flammability:	0
Physical Hazard	0

**NFPA Rating**

Health hazard:	1
Fire Hazard:	0
Reactivity Hazard:	0

**Further information**

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