

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

**GHS product identifier:**Bluegene Biotech-Enzyme Linked Immunosorbent Assay kit

**Recommended use:** components of these kits including reagents, calibrators are all well packaged for final use, test kits are prepackaged complete ready for use Reagents ready to use in research purpose, not for use in diagnostic or therapeutic procedures.

<b>Supplier Address</b>	BlueGene Biotech Room 403, building 2, No. 166 TianXiong Rd, Pudong New District, Shanghai China Tel: 86-021-4008826373
<b>E-mail address</b>	tech@bluegene.cc
<b>Emergency telephone</b>	86-021-4008826373-805

### 2. HAZARDS IDENTIFICATION

GHS - Classification

Ozone : Not applicable

**GHS Label elements, including precautionary statements**

**Other information**

No information available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<b>HAZARDOUS INGREDIENTS: ANTIBODY COATED MICROTITER PLATE</b>	CAS#	EINECS#	ICSC#	Amount	Hazard Classification; Hazard Phrases
Affinity Purified Rabbit Antibody	Not Listed	Not Listed	Not Established	<100ug	Not classified None
<b>HAZARDOUS INGREDIENTS: STANDARDS: 6vials, 0.5ml/vial</b>	CAS#	EINECS#	ICSC#	Amount	Hazard Classification; Hazard Phrases
Recombinant protein from E.coli	Not Listed	Not Listed	Not Established	<0.1%	Not classified None
Distilled Water	7732-18-5	231-791-2	Not Listed	>90%	Not classified None
ProCline 300 Preservative	55965-84- 9	Not Listed	613-167-00 05	<0.1%	Irritant Hazard Phrases: H302, H314, H317, H332; H410 Precaution Phrases: P273, P280, P305 + P351 + P338, P310, P501
<b>HAZARDOUS INGREDIENTS:ENZYME CONJUGATE 6 ml</b>	CAS#	EINECS#	ICSC#	Amount	Hazard Classification; Hazard Phrases
HRP conjugate antigen	Not Listed	Not Listed	Not Established	<100ug	Not classified None
ProClin 300 Preservative	55965-84- 9	Not Listed	613-167-00 05	<0.1%	Irritant Hazard Phrases: H302, H314, H317, H332; H410 Precaution Phrases: P273, P280, P305 + P351 + P338, P310, P501
Tris Hydrochloride	1185-53-1	214-684-5	Not Listed	<1.0%	Not classified None
<b>HAZARDOUS INGREDIENTS: WASHER BUFFER 10ml</b>	CAS#	EINECS#	ICSC#	Amount	Hazard Classification; Hazard Phrases
Distilled Water	7732-18-5	231-791-2	Not Listed	>85%	Not classified None
Tris Hydrochloride	1185-53-1	214-684-5	Not Listed	<8.0%	Not classified None
Sodium Chloride	7647-14-5	231-598-3 <sub>2</sub>	Not Listed	<9.0%	Not classified None

Triton X-100	9002-93-1	Not Listed	Not Listed	<1.0%	irritant, Harmful Hazard Phrases: H318, H302
<b>HAZARDOUS INGREDIENTS: TMB SUBSTRATE SOLUTION</b>	CAS#	EINECS#	ICSC#	Amount	Hazard Classification; Hazard Phrases
Distilled Water	7732-18-5	231-791-2	Not Listed	>95%	Not classified None
TMB	54827-17-7	259-364-6	Not Listed	<0,01%	Concentration is too low.
<b>HAZARDOUS INGREDIENTS: STOP SOLUTION 6ml</b>	CAS#	EINECS#	ICSC#	Amount	Hazard Classification; Hazard Phrases
Distilled water	7732-18-5	231-791-2	Not Listed	>95%	Not classified None
<b>Sulphuric acid</b>	7664-93-9	Not Listed	Not Listed	1M	Hazard Classification: Highly corrosive Hazard Phrases: H314, Precaution Phases: P280-P305, P351, P338
<b>HAZARDOUS INGREDIENTS: BALANCE SOLUTION 6ml</b>	CAS#	EINECS#	ICSC#	Amount	Hazard Classification; Hazard Phrases
Distilled water	7732-18-5	231-791-2	Not Listed	>95%	Not classified None
NP-40 Lysis Buffer	9016-45-9	Not Listed	Not Listed	1%	HS-No: 34021300900 Hazard Symbols: H302-H318-H400 Precaution Phases: P273-P280-P305 + P351 + P338

#### 4. FIRST AID MEASURES

<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Inhalation</b>	Move to fresh air.
<b>Ingestion</b>	Clean mouth with water. Drink plenty of water.
<b>Notes to physician</b>	Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

<b>Flammable properties</b>	Not flammable.
<b>Flash point</b>	not determined
<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

#### Explosion Data

<b>Sensitivity to Mechanical</b>	None.
<b>Sensitivity to Static Discharge</b>	None.

<b>Protective equipment and precautions for firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (Approved or equivalent) and full protective gear.
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#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	
<b>Environmental precautions</b>	Try to prevent the material from entering drains or water courses.
<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.

#### 7. HANDLING AND STORAGE

<b>Advice on safe handling</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Technical measures/Storage conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines**      This product does not contain any hazardous materials with occupational exposure limits

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulphuric acid 7664-93-9	TWA: 0.2 mg/m <sup>3</sup> thoracic fraction	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup>	IDLH: 15 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>

*NIOSH IDLH: Immediately Dangerous to Life or Health*

**Other Exposure Guidelines**      Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Engineering measures**      Showers  
Eyewash stations  
Ventilation systems  
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### Personal protective equipment

**Eye/face protection**      No special protective equipment required

**Skin and body protection**      No special protective equipment required

**Respiratory protection**      If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures**      Handle in accordance with good industrial hygiene and safety practice

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	No information available.	<b>Odor</b>	No information available.
<b>Odor Threshold</b>	No information available	<b>Physical State @20°C</b>	No information available
<b>pH</b>	No information available	<b>Autoignition temperature</b>	No information available
<b>Flash point</b>	No information available	<b>Boiling point/boiling range</b>	No information available
<b>Decomposition temperature</b>	No information available	<b>Flammability Limits in Air</b>	No information available
<b>Melting point/range</b>	No information available		

<b>Explosion limits</b>	No information available		
<b>Specific Gravity</b>	no data available	<b>solubility</b>	No information available.
<b>Evaporation rate</b>	No information available	<b>Vapor density</b>	no data available
<b>VOC Content(%)</b>	not applicable		

## 10. STABILITY AND REACTIVITY

**Stability** Stable under recommended storage conditions.

**Incompatible products** None known based on information supplied.

**Conditions to avoid** None known based on information supplied.

**Hazardous decomposition products** None known based on information supplied.

**Hazardous polymerization** Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

**Product Information** Product does not present an acute toxicity hazard based on known or supplied information.

### Chronic toxicity

**Carcinogenicity** This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I)

Chemical Name	ACGIH	IARC	NTP	OSHA
Sulphuric acid	A2	Group 1	Known	X

**ACGIH: (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

**IARC: (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

**NTP: (National Toxicity Program)**

Known - Known Carcinogen

**OSHA: (Occupational Safety & Health Administration)**

X - Present

**Target Organ Effects** Eyes. Respiratory system. Skin. Teeth.

## 12. ECOLOGICAL INFORMATION

The environmental impact of this product has not been fully investigated

## 13. DISPOSAL CONSIDERATION

### Waste Disposal:

This material, as supplied, is not a hazardous waste according to Federal regulations (40CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

This product contains **sulphuric acid** that are listed with the State of California as a hazardous waste.

## 14. TRANSPORT INFORMATION

IATA Not dangerous goods

CNAS Not dangerous goods

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

#### SARA 313

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	Percent %	SARA 313 - Threshold Values %
Sulphuric acid	7664-93-9	1M	1.0
<b><u>SARA 311/312 Hazard Categories</u></b>			
<b>Acute Health Hazard</b>	no		
<b>Chronic Health Hazard</b>	no		
<b>Fire Hazard</b>	no		

<b>Sudden Release of Pressure Hazard</b>	no
<b>Reactive Hazard</b>	no

### **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.

### **International Regulations**

<b>Chemical Name</b>	<b>Carcinogen Status</b>	<b>Exposure limits</b>
<b>sulphuric acid</b>	A2	

### **Note:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

## **16. OTHER INFORMATION**

### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**The End**

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