

## **BlueGene ELISA Kits**

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## **Material Safety Data Sheet of BlueGene (BG) Elisa kit**

This Material Safety Data Sheet applies to all the BlueGene (BG) **ELISA kits**.

BlueGene(BG) Elisa Kit Reagents (reagents for research use only) contain Positive Antigen Control, Negative Control, Calibrator, Peroxidase Conjugate, Sample Dilution Buffer, Plate Blocker/Stabilizer and Wash Solution. Peroxidase Conjugate is a protein which should be stored at 2-8°C.

### **1/ Data on components**

Regarding components comprised in the kit, the following products are defined as hazardous chemicals. Material Safety Data Sheet(s) for the following chemical(s) are enclosed:

**Sodium Azide:** at a final concentration of 0.1-1% is used as a preservative in the following components of the kit: *Lysis Buffer Solution, Standards (A-F)*.

**ProClin 300:** at a final concentration from 0.01-0.1% is used as a preservative in the following components of the kit: *Enzyme Conjugate Solution*.

**Sulfuric Acid:** at a final concentration 1N in aqueous solution is used in *Stop Solution*.

Other chemical contained within these products do not meet definition of a hazardous chemical.

### **2/ General 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. BlueGene (BG) shall not be liable for any damages resulting from handling or from contact with the above products.

## Material Safety Data Sheet

### Section 1 - Identification of substance

**Product Identification:**

ELISA kit  
*Lysis Buffer Solution*  
*Standards*

### Section 2 - Data on components

**Chemical characterization:** Preparation

<b>Hazardous Ingredients</b>	<b>%</b>	<b>CAS Number</b>
Sodium Azide	0.1-1%	26628-22-8

**Additional information:**

The data and advice relate to the concentrations are not of the lyophilized powder, but of the prepared solution

### Section 3 - Hazard Identification

**Hazard Description:** not applicable

**Information concerning to particular hazards to man and environment:**

Not applicable

### Section 4 - First Aid Measures

**General information:** No special measures required.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After ingestion:** If symptoms persist consult doctor.

### Section 5 - Fire Fighting Measures

**Suitable extinguishing agents**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Protective equipment:** No special measures required.

### Section 6 - Accidental Release Measures

**Person-related safety precautions:** Not required.

**Measures for environmental protections:**

Dilute with plenty of water.

Do not allow to enter sewers / surface or ground water.

**Measures for cleaning / collecting**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### Section 7- Handling and storage

**Handling:**

**Information for safe handling:** Avoid breathing dust, vapor, mist or gas. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Use with adequate ventilation.

**Information about fire and explosion protection:**

The product listed in this MSDS contains sodium azide, a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, concentration buildups of sodium

azide may react with lead and copper plumbing to form highly explosive metal oxides. Flush with large volumes of water to prevent azide build-up in plumbing.

**Storage:**

**Requirement to be met by storerooms and receptacles:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from metals.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None

**Storage class:** Class according to regulation on flammable liquids: Void.

**Section 8 - Exposure Controls / Personal Protection**

**Additional information about design of technical facilities:** No further data; see section 7

**Ingredients with limit values that require monitoring at the workplace:** The product does not contain any relevant quantities of material with critical values that have to be monitored at the workplace.

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:** Not required.

**Protection of hands:** Protective gloves.

**Eye Protection:** Goggles recommended during refilling.

**Section 9 - Physical and Chemical Properties**

**Form:** Liquid

	<i>Lysis Buffer Solution</i>	<i>Standards (A-F)</i>
<b>Color:</b>	Light yellow or blue	Light yellow or colorless
<b>Odor:</b>	Odorless	Odorless

**Melting point/Melting range:** N/A **Boiling point/Boiling range:** N/A

**Flash point:** Not applicable.

**Auto ignition temperature:** N/A

**Danger of explosion:** Product does not present an explosion hazard.

**Density:** N/A

**Solubility in / Miscibility with water:** Fully miscible.

**Section 10 - Stability and Reactivity**

**Thermal decomposition:** No decomposition if used according to specifications.

**Dangerous reaction:** No dangerous reactions known.

**Dangerous decomposition products:** No dangerous decomposition products known.

**Section 11 - Toxicological Information**

**Route of entry:** Skin Contact, Eye contact, Inhalation, Ingestion

**Effects of acute exposure to Product:** Acute poisoning may cause gastrointestinal irritation and renal failure. May be fatal if inhaled, swallowed, or absorbed through the skin.

**Effects of chronic exposure to Product:** Chronic ingestion may result in salicylism, which is characterized by nausea, vomiting, gastrointestinal ulcers, and hemorrhagic strokes. Laboratory experiments have shown mutagenic effects.

**Target organs:** Kidneys and nervous system.

<b>Exposure Limits</b>	<b>Irritancy</b>	<b>Sensitization to Product</b>	<b>Carcinogenicity</b>
N/A	N/A	N/A	N/A
<b>Teratogenicity</b>	<b>Reproductive Toxicity</b>	<b>Mutagenicity</b>	<b>Synergistic Products</b>
N/A	N/A	N/A	N/A

### **Section 12 – Ecological Information**

**General Notes:** Hazardous for water.

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water even if small quantities leak into the ground.

### **Section 13 - Disposal considerations**

**Waste disposal:** dispose of in accordance with local official environmental regulations.

### **Section 14 - Transport Information**

**Special shipping information:** N/A

**DOT Hazard Label:** POISON **TEEL-3:** 12.5 mg/m<sup>3</sup>

**CAS Number:** 26628-22-8

**UN/NA Number:** 1687

**Hazard Class:** 6.1

**Proper Shipping Name:** Sodium Azide

**Packaging Group:** II

### **Section 15 - Regulations**

**Labeling:** Observe the general safety regulations when handling chemicals.

### **Section 16 - Other information**

This information is prepared on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

## Material Safety Data Sheet

### Section 1 - Identification of Substance

**Product Identification:** ELISA Kit, *Enzyme Conjugate Solution*.

### Section 2 – Data on Components

**Chemical characterization:**

**Hazardous ingredients:**

Preparation	%	CAS Number
Proclin 300	0.01-0.1%	N/A

**Additional information:**

The data and advice relate to the concentrations not of the lyophilized powder, but of the prepared solution.

### Section 3 - Hazard Identification

**Hazard Description:** Not applicable.

**Information concerning to particular hazards to man and environment:** Not applicable.

### Section 4 - First Aid Measures

**General information:** No special measures required.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Generally, the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After ingestion:** If symptoms persist consult doctor.

### Section 5 - Fire Fighting Measures

**Suitable extinguishing agents:** CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Protective equipment:** No special measures required.

### Section 6 - Accidental Release Measures

**Person-related safety precautions:** Not required.

**Measures for environmental protections:** Dilute with plenty of water. Do not allow to enter sewers / surface or ground water.

**Measures for cleaning / collecting:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### Section 7- Handling and storage

**Handling:**

**Information for safe handling:** Avoid breathing dust, vapor, mist or gas. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Use with adequate ventilation.

**Information about fire and explosion protection:** Not special measures required

**Storage:**

**Requirement to be met by storerooms and receptacles:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from metals.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

### Section 8 - Exposure Controls / Personal Protection

**Additional information about design of technical facilities:** No further data; see section 7.

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of material with critical values that have to be monitored at the workplace.

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:** Not required.

**Protection of hands:** Protective gloves.

**Eye Protection:** Goggles recommended during refilling.

### Section 9 - Physical and Chemical Properties

**Form:** Liquid

**Color:** Red

**Odor:** Odorless

**Melting point/Melting range:** N/A

**Boiling point/Boiling range:** N/A

**Flash point:** Not applicable.

**Auto ignition temperature:** N/A

**Danger of explosion:** Product does not present an explosion hazard.

**Density:** N/A

**Solubility in / Miscibility with water:** Fully miscible.

### Section 10 - Stability and Reactivity

**Thermal decomposition:** No decomposition if used according to specifications.

**Dangerous reaction:** No dangerous reactions known.

**Dangerous decomposition products:** No dangerous decomposition products known.

### Section 11 - Toxicological Information

**Route of entry:** Skin Contact, Eye contact, Inhalation, Ingestion.

**Effects of acute exposure to Product:** No irritant effect on the skin, eyes. No sensitizing effects known.

**Additional toxicological information:**

<b>Exposure Limits</b>	<b>Irritancy</b>	<b>Sensitization of Product</b>	<b>Carcinogenicity</b>
N/A	N/A	N/A	N/A
<b>Teratogenicity</b>	<b>Reproductive Toxicity</b>	<b>Mutagenicity</b>	<b>Synergistic Products</b>
N/A	N/A	N/A	N/A

**Section 12 – Ecological Information**

**General Notes:** Generally not hazardous for water.

**Section 13 - Disposal considerations**

**Waste disposal:** Dispose of in accordance with local official environmental regulations.

**Section 14 - Transport Information**

**Special shipping information:** None.

**Section 15 - Regulations**

**Labeling:** Observe the general safety regulations when handling chemicals.

**Section 16 - Other information**

This information is prepared on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

## Material Safety Data Sheet

### Section 1 - Identification of Substance

**Product Identification:** ELISA kit, Stop Reagent.

### Section 2 - Data on Components

**Chemical characterization:**

**Hazardous ingredients:**

Preparation	Concentration Number	CAS
Sulfuric Acid	1M	7664-93-9

### Section 3 – Hazard Identification

**Hazard Description:**

Corrosive

**Information concerning to particular hazards to man and environment:** Causes burns.

### Section 4 - First Aid Measures

**General information:** Immediately remove any clothing soiled by the product.

**After inhalation:** In case of unconsciousness, place patient stably in side position for transportation.

**After skin contact:** Immediately wash with plenty of water and soap and rinse thoroughly.

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a physician.

**After ingestion:** Do not induce vomiting. If conscious, give water, milk, or milk of magnesia. Call for a physician immediately.

### Section 5 - Fire Fighting Measures

**Suitable extinguishing agents:** Use dry chemical or carbon dioxide. Do not use water.

**Protective equipment:** No special measures required.

### Section 6 - Accidental Release Measures

**Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.

**Measures for environmental protections:** Prevent seepage into sewage system, work pits and cellars. Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning / collecting:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose contaminated material as waste according to section 13. Ensure adequate ventilation.

### Section 7- Handling and storage

**Handling:** Information for safe handling: Avoid contact with eyes, skin and clothing. Do not breathe vapor. Keep container tightly closed.

**Information about fire and explosion protection:** No special measures required.

**Storage:**



**Storage requirement:** Keep in tightly closed container. Store separately and away from flammables and combustible materials.

### **Section 8 - Exposure Controls / Personal Protection**

**Additional information about design of technical facilities:** No further data; see section 7

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of material with critical values that have to be monitored at the workplace.

**Personal protective equipment:**

**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin.

**Respiratory protection:** Not required.

**Protection of hands:** Protective acid resistant gloves.

**Eye Protection:** Tightly sealed goggles.

### **Section 9 - Physical and Chemical Properties**

**Form:** Liquid

**Color:** Colorless

**Odor:** Odorless

**Melting point/Melting range:** N/A

**Boiling point/Boiling range:** N/A

**Flash point:** Not applicable.

**Auto ignition temperature:** N/A

**Danger of explosion:** Product does not present an explosion hazard

**Density:** N/A

**Solubility in/Miscibility with water:** Fully miscible.

### **Section 10 - Stability and Reactivity**

**Thermal decomposition:** No decomposition if used according to specifications.

**Reactivity and under what conditions:** A violent exothermic reaction occurs with water. Avoid contact with alkaline solutions, metals, metals powder, chlorates, nitrates, strong oxidizing or reducing materials, and combustible organic materials.

**Hazardous decomposition products (concentrated SULFURIC ACID):**

Toxic fumes of oxides of sulfur when heated to decomposition will react with water or steam to produce toxic and corrosive fumes. Reacts with carbonates to generate carbon dioxide gas, and with cyanides and sulfides to form poisonous hydrogen cyanide and hydrogen sulfide respectively.

### Section 11 - Toxicological Information

**Route of entry:** Skin Contact, Eye contact, Inhalation, Ingestion.

**Effects of acute exposure to Product:** Contact with skin or eyes may cause severe irritation or burns. Vapors may be irritating to eyes, nose, and throat. Poison may be fatal if swallowed, causes burns.

**Effects of chronic exposure to Product:**

Long term exposure to mist or vapors may cause damage to teeth. Chronic exposure to mists containing sulfuric acid is a cancer hazard.

Exposure Limits	Irritancy	Sensitization to Product	Carcinogenicity
N/A	N/A	N/A	N/A
Teratogenicity	Reproductive Toxicity	Mutagenicity	Synergistic Products
N/A	N/A	N/A	N/A

### Section 12 – Ecological Information

**General Notes:** Hazardous for water. Do not allow product to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or un-neutralized. Danger to drinking water even if small quantities leak into the ground.

### Section 13 - Disposal considerations

**Waste disposal:** Dispose of in accordance with local official environmental regulations.

### Section 14 - Transport Information

**Special shipping information:** Domestic (D.O.T) International (I.M.O)

**Proper Shipping Name:** Sulfuric Acid (with not more than 51% acid)

Sulfuric Acid (with not more than 51% acid)

**Hazard Class:**

Class 8 -UN2796

**Packaging Group:** II

### Section 15 - Regulations

**Labeling:** Observe the general safety regulations when handling chemicals. The product has been classified and marked. Code letter and hazard designation of product: C Corrosive.

### Section 16 - Other information

This information is prepared on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.