

## Master Mix for 16S Microbial ID Kit

### SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1 Identification of the Substance or Mixture

<b>Product Name</b>	Master Mix (MM)
<b>Product Number</b>	1050000

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

Relevant identified uses	For use in molecular biology applications.
--------------------------	--

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

BioID Genomics, LLC.  
14807 N. 73rd Street; Suite 103  
Scottsdale, AZ 85260  
Tel: (480) 530-0930; ext: 241

#### 1.4 Emergency telephone number

Spill, Leak, Fire, Exposure, or Accident. Call *CHEMTREC*  
Within the USA & Canada: 1-800-424-9300 and & 1-703-527-3887  
Outside the USA + Canada: +1-703-741-5970

### SECTION 2: Hazard Identification

#### 2.1 Classification of the substance or mixture

<b>Product Description</b>	Clear viscous liquid
----------------------------	----------------------

**Classification according to EC1272/2008 (CLP/GHS)**

Not classified as hazardous per EC 1272/2008 (CLP/GHS).

**Classification according to EC Directives 1999/45/EC and 67/548/EEC**

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC).

**Classification according to US-OSHA (HCS 29 CFR 1910.1200) and UN GHS**

Not classified as hazardous per US-OSHA HCS 2012 and UN GHS.

#### 2.2 Label elements

**According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS**

Not classified as hazardous per EC 1272/2008 (CLP/GHS), US-OSHA and GHS.

**2.3 Other hazards**
**Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**NFPA® 704 National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).**

HMIS		Codes
Health	1	0=None
Flammability	0	1=Slight
Reactivity	0	2=Caution
		3=Severe



This product contains concentrations of azide below the hazardous level which with repeated contact with lead and copper commonly found in plumbing drains may result in the build up of shock sensitive compounds. Sodium azide forms explosive compounds with heavy metals. See Section 11 Toxicological Information for more detailed health information.

**SECTION 3: Composition and Information on Ingredients**

**3.1 Substances** Not relevant (mixture)

**3.2 Mixtures** Hazardous Ingredients:

Description of the mixture

Component	CAS-No	EINECS-No	Weight %
SODIUM AZIDE 26628-22-8 ( < 0.25 )	26628-22-8	N/A	< 0.25

\*\*Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. We recommend handling all chemicals with caution.

**SECTION 4: First Aid Measures**
**4.1 Description of First aid measures**

<b>Skin Contact</b>	Rinse with plenty of water . Immediate medical attention is not required.
<b>Eye Contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
<b>Ingestion</b>	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>Notes to Physician</b>	Treat symptomatically.

**4.2 Most Important Symptoms and Effects, Both Acute and Delayed** Not Applicable.

**4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed** None.

**SECTION 5: Firefighting Measures****5.1 Extinguishing media**

**Suitable Extinguishing Media** Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, Dry chemical.

**Unsuitable Extinguishing Media** No information available.

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

Not known.

**5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes.  
Self-contained breathing apparatus is recommended for Firefighters in all chemical fire situations.

**5.4 Additional information**

No further relevant information available.

**SECTION 6: Accidental Release Measures****6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

**For non-emergency personnel** Ensure adequate ventilation.  
Remove persons to safety.

**For emergency responders** Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

**6.2 Environmental Precautions**

- A. No special environmental precautions required.
- B. Contain spill to prevent migration.
- C. Keep away from drains, surface and ground water.
- D. Retain contaminated washing water and dispose of it in accordance with local regulations.

**6.3 Methods and material for containment and cleaning up****Advices on how to contain a spill**

Covering of drains.

**Advices on how to clean up a spill**

Wipe up with absorbent material (e.g. cloth, fleece).  
Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder.

**Appropriate containment techniques**

Use of adsorbent materials.

**Other information relating to spills and releases**

Place in appropriate containers for disposal. Ventilate affected area.

**6.4 Reference to other sections**

Hazardous combustion products: see section 5.  
Personal protective equipment: see section 8.  
Incompatible materials: see section 10.  
Disposal considerations: see section 13.

## SECTION 7: Handling and Storage

### 7.1 Precautions For Safe Handling

Use personal protective equipment as required. No special handling advices are necessary.

### 7.2 Conditions For Safe Storage, Including Any Incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Measures to prevent fire as well as aerosol and dust generation.

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene.

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feeding stuffs.

### 7.3 Specific end use(s) See section 16 for a general overview.

See section 16 for a general overview.

## SECTION 8: Exposure Controls/Personal Protection

### 8.1 Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
SODIUM AZIDE	None	None	None	None

### 8.2 Exposure Controls

**Appropriate engineering controls**                      General ventilation.

#### Individual protection measures (personal protective equipment)

**Respiratory Protection**                                      In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

**Hand Protection**    Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

**Eye/ Face Protection**                                      Safety glasses or chemical goggles should be worn to prevent eye contact. Refer U.S. OSHA 29 CFR 1910.133.

**Skin and Body Protection**                                      Wear suitable protective clothing.

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

**Environmental Exposure Controls**                                      Use appropriate container to avoid environmental contamination.

Keep away from drains, surface and ground water.

**SECTION 9: Physical and Chemical Properties****9.1 Information on basic physical and chemical properties****Appearance**

<b>Physical State</b>	Colorless liquid.
<b>Odor</b>	No data available.
<b>Melting Point / Melting Range</b>	°C Mixture has not been tested °F Mixture has not been tested.
<b>Boiling Point / Boiling Range</b>	°C Mixture has not been tested °F Mixture has not been tested.
<b>Flash Point</b>	°C Mixture has not been tested °F Mixture has not been tested.
<b>Autoignition Temperature</b>	°C Mixture has not been tested °F Mixture has not been tested.
<b>Decomposition Temperature</b>	°C Mixture has not been tested °F Mixture has not been tested.
<b>Evaporation Rate</b>	No data available.
<b>Flammability (Solid, Gas)</b>	No data available.
<b>Upper Explosion Limit</b>	Mixture has not been tested.
<b>Lower Explosion Limit</b>	Mixture has not been tested.
<b>Vapor Pressure</b>	Mixture has not been tested.
<b>Relative Density</b>	Mixture has not been tested.
<b>Specific Gravity</b>	No data available.
<b>Solubility</b>	No data available.
<b>Partition Coefficient: n-Octanol/Water</b>	No data available.
<b>Explosive Properties</b>	Mixture has not been tested.

**9.2 Other Information**

No further relevant information available.

**SECTION 10: Stability and Reactivity****10.1 Reactivity**

Sodium azide may react with lead and copper plumbing to form highly explosive metal azides.

**10.2 Chemical Stability**

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**10.3 Possibility of Hazardous Reactions**

This product contains concentrations of azide below the hazardous level which with repeated contact with lead and copper commonly found in plumbing drains may result in the build up of shock sensitive compounds. Sodium azide forms explosive compounds with heavy metals.

**10.4 Conditions to Avoid**

No information available.

**10.5 Incompatible Materials**

No dangerous reaction known under conditions of normal use.

**10.6 Hazardous Decomposition Products**

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill, and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological Information

### 11.1 Information on toxicological effects

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
SODIUM AZIDE	(=) 27 mg/kg (Rat)	No data available	No data available

### 11.2 Test data/Principal Routes of Exposure

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture.

#### Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

This mixture does not meet the criteria for classification.

<b>Acute toxicity</b>	The classification criteria for these hazard classes are not met.
<b>Skin corrosion/irritation</b>	The classification criteria for this hazard class are not met.
<b>Eye damage/Irritation</b>	The classification criteria for this hazard class are not met.
<b>Respiratory</b>	The classification criteria for this hazard class are not met.
<b>Skin Irritation</b>	Conclusive but not sufficient for classification.
<b>Corrosivity</b>	Conclusive but not sufficient for classification.
<b>Sensitization</b>	Conclusive but not sufficient for classification.
<b>STOT - Single Exposure</b>	Conclusive but not sufficient for classification.
<b>STOT - Repeated Exposure</b>	Conclusive but not sufficient for classification.
<b>Carcinogenicity</b>	Conclusive but not sufficient for classification.
<b>Mutagenicity</b>	Conclusive but not sufficient for classification.
<b>Reproductive Toxicity</b>	Conclusive but not sufficient for classification.
<b>Aspiration Hazard</b>	Conclusive but not sufficient for classification.
<b>Other Information</b>	No further relevant information available.

## SECTION 12: Ecological Information

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

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
SODIUM AZIDE	No data available	No data available	No data available	No data available	No data available

**12.2 Ecotoxicity** No information available.

**12.3 Persistence and Degradability** No information available.

**12.4 Bioaccumulative Potential** No information available.

**12.6 Results of PBT and vPvB Assessment** No information available.

**12.7 Other Adverse Effects** No information available.

**SECTION 13: Transport Information**

**13.1 Waste Treatment Methods**

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal techniques. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

**13.2 Additional information**

Not Applicable.

**SECTION 14: Transport Information**

**IATA / ADR / DOT-US / IMDG**

Not regulated in the meaning of transport regulations.

**14.1 UN Number**

Not Applicable.

**14.2 Proper Shipping Name**

Not Applicable.

**14.3 Transport Hazard Class(es)**

Not Applicable.

**14.4 Packing Group**

Not Applicable.

**14.5 Environmental Hazards**

Non-environmentally hazardous acc. to the dangerous goods regulations

**14.6 Special Precautions for User**

Not Applicable.

**SECTION 15: Regulatory Information**
**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	US TSCA
SODIUM AZIDE 26628-22-8 ( < 0.25 )	Listed

**US Federal and State Regulations**
**Superfund Amendment and Reauthorization Act (SARA 313 )**

This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackage, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers.

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
SODIUM AZIDE	26628-22-8	< 0.25	1

**15.2 Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contains HAPs.

**US Federal and State Regulations**
**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**Toxic Substance Control Act (TSCA)**

All ingredients are listed.

**WHMIS Hazard Class Non-controlled**

Non-controlled.

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

**15.3 Chemical Safety Assessment**

A Chemical Safety Assessment has not been carried out. Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.



**SECTION 16: Other Information**

**16.1 Key literature references and sources for data**

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

**16.2 References**

ECHA: <http://echa.europa.eu/>  
 TOXNET: <http://toxnet.nlm.nih.gov/>  
 eChemPortal : <http://www.echemportal.org/>  
 LOLI database: <https://www.chemadvisor.com/lolidatabase>

**Disclaimer**

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculation are based on information furnished by the manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstance of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in section 1. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. BioIDGenomics, inc. Shall not be held liable for any damage resulting from handling or from contact with the above product. BioIDGenomics, inc. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

**For Research Use Only. Not for use in diagnostic procedures.**

**End of Safety Data Sheet**

Reason for revision	SDS sections updated.
Revision number	1
Revision date	09/10/19

## Normalization Beads for 16S Microbial ID Kit

### SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1 Identification of the Substance or Mixture

<b>ProductName</b>	Normalization Beads (NB)
<b>Product number</b>	1061003

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

Relevant identified uses	For use in molecular biology applications.
--------------------------	--

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

BioID Genomics, Inc.  
14807 N. 73rd Street; Suite 103  
Scottsdale, AZ 85260  
Tel: (480) 530-0930; ext: 241

#### 1.4 Emergency telephone number

Spill, Leak, Fire, Exposure, or Accident. Call *CHEMTREC*  
Within the USA & Canada: 1-800-424-9300 and & 1-703-527-3887  
Outside the USA + Canada: +1-703-741-5970

### SECTION 2: Hazard Identification

#### 2.1 Classification of the substance or mixture

**Product Description**      Mixture Brown; Clear with brown precipitate; Liquid; Odorless

**Classification according to EC1272/2008 (CLP/GHS)**

Not classified as hazardous per EC 1272/2008 (CLP/GHS)

**Classification according to EC Directives 1999/45/EC and 67/548/EEC**

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

**Classification according to US-OSHA (HCS 29 CFR 1910.1200) and UN GHS**

Not classified as hazardous per US-OSHA HCS 2012 and UN GHS

#### 2.2 Label elements

**According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS**

Not classified as hazardous per EC 1272/2008 (CLP/GHS), US-OSHA and GHS.

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

#### NFPA® 704 National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

	HMIS	Codes
Health	1	0=None
Flammability	0	1=Slight
Reactivity	0	2=Caution
		3=Severe



This product contains concentrations of azide below the hazardous level which with repeated contact with lead and copper commonly found in plumbing drains may result in the build up of shock sensitive compounds. Sodium azide forms explosive compounds with heavy metals. See Section 11 Toxicological Information for more detailed health information.

### Section 3: Composition and Information on Ingredients

**3.1 Substances** Not relevant (mixture)

**3.2 Mixtures** Hazardous Ingredients:

Description of the mixture

Name of substance	CAS No	Wt%
DI Water	7732-18-5	65.39
Polyethylene Glycol (PEG) 8000	25322-68-3	20
Sodium Chloride	7647-14-5	14.61
Sodium Azide	26628-22-8	< 0.1

\*\*Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. We recommend handling all chemicals with caution.

## Section 4: First Aid Measures

### 4.1 Description of First aid measures

<b>General notes</b>	In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.
<b>Eye Contact</b>	Remove contact lenses, if present and easy to do. If product enters eyes, rinse eyes gently with water as a precaution for at least 10 minutes.
<b>Skin Contact</b>	In case of skin contact, rinse with soap and water as a precaution.
<b>Ingestion</b>	If product is ingested, rinse mouth with water. If irritation or discomfort occurs, obtain medical attention immediately. Do NOT induce vomiting.
<b>Inhalation</b>	If product is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration by trained personnel and obtain medical attention immediately.

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

No adverse symptoms or effects have been identified.

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

No specific medical attention or treatment required.

## SECTION 5: FireFighting Measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Water spray, BC-powder, Carbon dioxide (CO <sub>2</sub> ), dry chemical, or foam.
<b>Unsuitable extinguishing media</b>	Water jet

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

Hazardous combustion products.  
Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.  
Self-contained breathing apparatus is recommended for Firefighters in all chemical fire situations.

### 5.4 Additional information

No further relevant information available.

**SECTION 6: Accidental Release Measures****6.1 Personal precautions, protective equipment and emergency procedures**

<b>For non-emergency personnel</b>	Ensure adequate ventilation. Remove persons to safety.
<b>For emergency responders</b>	Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

**6.2 Environmental precautions**

- A. No special environmental precautions required.
- B. Contain spill to prevent migration.
- C. Keep away from drains, surface and ground water.
- D. Retain contaminated washing water and dispose of it in accordance with local regulations.

**6.3 Methods and Material for Containment and Clean Up****Advice on how to contain a spill**

Covering of drains.

**Advice on how to clean up a spill**

Wipe up with absorbent material (e.g. cloth, fleece).  
Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder.

**Appropriate containment techniques**

Use of adsorbent materials.

**Other information relating to spills and releases**

Place in appropriate containers for disposal. Ventilate affected area.

**6.4 Reference to other sections**

Hazardous combustion products: see section 5.  
Personal protective equipment: see section 8.  
Incompatible materials: see section 10.  
Disposal considerations: see section 13.

**SECTION 7: Handling and Storage****7.1 Precautions for safe handling****Recommendations**

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Measures to prevent fire as well as aerosol and dust generation.

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene.

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feeding stuffs.

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

To maintain product quality, store according to the instructions in the product labeling.

Store away from strong acids, strong bases, strong oxidizers, and incompatible materials (section 10).

**7.3 Specific end use(s) See section 16 for a general overview.**

See section 16 for a general overview.

**SECTION 8: Exposure Controls/Personal Protection**
**8.1 Control parameters**

Relevant DNELs of components of the mixture						
Substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Polyethylene Glycol (PEG) 8000	25322-68-3	DNEL	117.5 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic
Polyethylene Glycol (PEG) 8000	25322-68-3	DNEL	66.67 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic
Sodium Chloride	7647-14-5	DNEL	2,069 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic
Sodium Chloride	7647-14-5	DNEL	2,069 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic
Sodium Chloride	7647-14-5	DNEL	295.5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic
Sodium Chloride	7647-14-5	DNEL	295.5 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic

Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Polyethylene Glycol (PEG) 8000	25322-68-3	PNEC	0.016 mg/l	aquatic organisms	freshwater	short-term (single)
Polyethylene Glycol (PEG) 8000	25322-68-3	PNEC	0.002 mg/l	aquatic organisms	marine water	short-term (single)
Polyethylene Glycol (PEG) 8000	25322-68-3	PNEC	77.06 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single)
Polyethylene Glycol (PEG) 8000	25322-68-3	PNEC	15.91 mg/kg	aquatic organisms	freshwater sediment	short-term (single)
Polyethylene Glycol (PEG) 8000	25322-68-3	PNEC	15.91 mg/kg	aquatic organisms	marine sediment	short-term (single)
Polyethylene Glycol (PEG) 8000	25322-68-3	PNEC	4.423 mg/kg	terrestrial organisms	soil	short-term (single)
Sodium Chloride	7647-14-5	PNEC	5 mg/l	aquatic organisms	freshwater	short-term (single)
Sodium Chloride	7647-14-5	PNEC	500 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single)
Sodium Chloride	7647-14-5	PNEC	4.86 mg/kg	terrestrial organisms	soil	short-term (single)

## 8.2 Exposure controls

### Appropriate engineering controls

General ventilation.

### Individual protection measures (personal protective equipment)

#### Respiratory Protection

In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

#### Hand Protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

#### Eye/ Face Protection

Safety glasses or chemical goggles should be worn to prevent eye contact. Refer U.S. OSHA 29 CFR 1910.133

#### Skin and Body Protection

Wear suitable protective clothing.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

#### Environmental Exposure Controls

Use appropriate container to avoid environmental contamination.  
Keep away from drains, surface and ground water.

## SECTION 9: Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical State	Liquid
Color	Brown
Odor	Odorless
pH (value)	8.0 - 8.4
Melting point/freezing point	Not determined
Initial boiling point and boiling range	100 °C
Flash point	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Not relevant, (fluid)
Explosive limits	Not determined
Vapor pressure	0 Pa at 25 °C
Density	Not determined
Vapor density	Not determined
Relative density	Information on this property is not available
Specific Gravity	≈ 1.127
Solubility	Not determined

#### Partition coefficient

n-Octanol/Water (log KOW)	This information is not available
Auto-ignition temperature	Not determined
Viscosity	Not determined
Explosive properties	None
Oxidizing properties	None

### 9.2 Other Information

No further relevant information available.



## SECTION 10: Stability and Reactivity

- 10.1 Reactivity** Sodium azide may react with lead and copper plumbing to form highly explosive metal azides.
- 10.2 Chemical stability** The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
- 10.3 Possibility of hazardous reactions**  
 This product contains concentrations of azide below the hazardous level which with repeated contact with lead and copper commonly found in plumbing drains may result in the build up of shock sensitive compounds. Sodium azide forms explosive compounds with heavy metals.
- 10.4 Conditions to avoid** Avoid contact with incompatible materials.  
 Avoid exposure to heat and direct sunlight.
- 10.5 Incompatible materials** Oxidizers.
- 10.6 Hazardous decomposition products**  
 Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill, and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological Information

### 11.1 Information on toxicological effects

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
SODIUM AZIDE	(=) 27 mg/kg (Rat)	No data available	No data available

### 11.2 Test data/Principal Routes of Exposure

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture.

#### Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

This mixture does not meet the criteria for classification.

<b>Acute toxicity</b>	The classification criteria for these hazard classes are not met.
<b>Skin corrosion/irritation</b>	The classification criteria for this hazard class are not met.
<b>Eye damage/Irritation</b>	The classification criteria for this hazard class are not met.
<b>Respiratory</b>	The classification criteria for this hazard class are not met.
<b>Skin Irritation</b>	Conclusive but not sufficient for classification.
<b>Corrosivity</b>	Conclusive but not sufficient for classification.
<b>Sensitization</b>	Conclusive but not sufficient for classification.
<b>STOT - Single Exposure</b>	Conclusive but not sufficient for classification.
<b>STOT - Repeated Exposure</b>	Conclusive but not sufficient for classification.
<b>Carcinogenicity</b>	Conclusive but not sufficient for classification.
<b>Mutagenicity</b>	Conclusive but not sufficient for classification.
<b>Reproductive Toxicity</b>	Conclusive but not sufficient for classification.
<b>Aspiration Hazard</b>	Conclusive but not sufficient for classification.
<b>Other Information</b>	No further relevant information available.

**SECTION 12: Ecological Information**

<b>12.1 Toxicity</b>	Not classified as hazardous to the aquatic environment.
<b>12.2 Ecotoxicity</b>	
Fresh Water Species	No information available.
Microtox	No information available.
Water Flea	No information available.
Fresh Water Algae	No information available.
<b>12.3 Persistence and degradability</b>	Data are not available.
<b>12.4 Bioaccumulative potential</b>	Data are not available.
<b>12.5 Mobility in soil</b>	Data are not available.
<b>12.6 Results of PBT and vPvB assessment</b>	Data are not available.
<b>12.7 Other adverse effects</b>	This product contains environmentally hazardous substance below the cutoff level. Refer section 3 for ingredient information. Do not allow undiluted product to enter sewer/surface or ground water.

**Section 13: Disposal Considerations****13.1 Waste treatment methods****Product Waste Disposal**

Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information. Sodium azide preservative may form explosive compounds in metal drain lines. See NIOSH Bulletin: Explosive Azide Hazard (8/16/76). To avoid the possible build-up of azide compounds, flush wastepipes with water after the disposal of undiluted reagent. Sodium azide disposal must be in accordance with appropriate local regulations.

**Package disposal**

Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

**13.2 Additional information**

Suggested European waste catalogue 18 01 07 - chemicals other than those mentioned in 18 01 06. Dispose in accordance with national, state, and local waste regulations.

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

**SECTION 14: Transport Information**

Transportation of this product is not regulated under ICAO, IATA DGR, IMDG, US DOT, European ADR and RID or Canadian TDG.

<b>14.1 UN number</b>	Not subject to transport regulations.
<b>14.2 Proper Shipping Name</b>	Not regulated for transportation.
<b>14.3 Transport hazard class(es)</b>	None.
<b>14.4 Packing group</b>	Not relevant.
<b>14.5 Environmental hazards</b>	Non-environmentally hazardous according to the dangerous goods regulations.
<b>14.6 Special precautions for user</b>	There is no additional information.

**SECTION 15: Regulatory Information**

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

**US Federal and State Regulations**

**Toxic Substance Control Act (TSCA)** All ingredients are listed.

**Superfund Amendment and Reauthorization Act (SARA 313 )**

This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackage, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers.

Component	US TSCA
SODIUM AZIDE 26628-22-8 ( < 0.25 )	Listed

**Specific Toxic Chemical Listings (EPCRA Section 313)** none of the ingredients are listed

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA RG's, 40 CFR 302.4)** Sodium Azide is listed.

**California Environmental Protection Agency (Cal/EPA): Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1987)**  
No ingredients listed.

**15.2 Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**  
This product does not contains HAPs.

**15.3 Chemical Safety Assessment**  
A Chemical Safety Assessment has not been carried out. Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.

**SECTION 16: Other Information****16.1 Key literature references and sources for data**

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

**16.2 Classification procedure**

Physical and chemical properties: The classification is based on tested mixture. Health hazards,  
Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

**16.3 Hazard Class, hazard statements and risk phrase description from section 3**

N -	Dangerous for the environment
T+ -	Very toxic
R28	Very toxic if swallowed.
R32	Contact with acids liberates very toxic gas.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in aquatic environment.
Aquatic Acute 1 -	Aquatic Hazard Acute, Category 1
Acute Tox. Oral 2 -	Acute Toxicity Oral, Category 2
Aquatic Longterm 1 -	Aquatic Hazard Long term, Category 1
H300 -	Fatal if swallowed.
H400 -	Very toxic to aquatic life.
H410 -	Very toxic to aquatic life with long lasting effects.

**16.4 Abbreviations and Acronyms**

ACGIH -	American Conference of Governmental Industrial Hygienists
ADR and RID -	European Agreement Concerning The International Carriage Of Dangerous Goods By Road and Rail
CERCLA -	The Comprehensive Environmental Response, Compensation, and Liability Act
CLP -	Classification, Labeling and Packaging
DFGMAK -	Republic Germany's maximum exposure limit
GHS -	Globally Harmonized System
HCS -	Hazard Communication Standard
IARC -	International Agency for Research on Cancer
IATA DGR -	International Air Transport Association Dangerous Goods Regulation
ICAO -	International Civil Aviation Organization
IMDG -	International Maritime Dangerous Goods
IOELVs -	European Unions' Indicative Occupational Exposure Limit Values
NIOSH -	National Institute for Occupational Safety and Health
NTP -	National Toxicology Program
OSHA -	Occupational Safety and Health Administration
PBT -	Persistent bioaccumulative and toxic substances
SARA -	Superfund Amendments and Reauthorization Act
TDG -	Canadian Transportation Of Dangerous Goods Regulations.
UN GHS -	United Nations Globally Harmonized System
US DOT -	United States Department of Transportation
vPvB -	Very persistent and very bioaccumulative substances
WHMIS -	Workplace Hazardous Material Information System
DNEL-	Derived no-effect level
PNEC-	Predicted No Effect Concentration

**16.5 References**

ECHA:	<a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
TOXNET:	<a href="http://toxnet.nlm.nih.gov/">http://toxnet.nlm.nih.gov/</a>
eChemPortal :	<a href="http://www.echemportal.org/">http://www.echemportal.org/</a>
LOLI database:	<a href="https://www.chemadvisor.com/lolidatabase">https://www.chemadvisor.com/lolidatabase</a>

**Disclaimer**

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculation are based on information furnished by the manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstance of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in section 1. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. BioIDGenomics, inc. Shall not be held liable for any damage resulting from handling or from contact with the above product. BioIDGenomics, inc. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

**For Research Use Only. Not for use in diagnostic procedures.**

**End of Safety Data Sheet**

Reason for revision	SDS sections updated.
Revision number	1
Revision date	09/18/19