

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

Revision date: 12/08/2022

**10x TE40 Puffer, pH 7,4**

Product code: BU-TE-40-10.

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### 1. Identification

#### Product identifier

10x TE40 Puffer, pH 7,4

#### Recommended use of the chemical and restrictions on use

##### Use of the substance/mixture

Use as laboratory reagent.

##### Uses advised against

Any non-intended use.

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

Company name:	Dynamic Biosensors Inc.	
Street:	300 Trade Center, Suite 1400	
Place:	USA-01801 Woburn, MA	
Telephone:	+1 781 404 6126	
Responsible Department:	Dr. Gans-Eichler	e-mail: info@tge-consult.de
	Chemieberatung GmbH	Tel.: +49(0)2534 6441185
	Otto-Hahn-Str. 36	www.tge-consult.de
	D-48161 Münster	

**Emergency phone number:** CONTACT (24-Hour-Number): GBK GmbH 01149-6132-84463

### 2. Hazard(s) identification

#### Classification of the chemical

##### 29 CFR Part 1910.1200

This mixture is not classified as hazardous in accordance with Regulation 29 CFR 1910.1200(d).

#### Label elements

##### Additional advice on labelling

Label elements GHS: None

#### Hazards not otherwise classified

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

### 3. Composition/information on ingredients

#### Mixtures

##### Chemical characterization

The product does not contain dangerous substances to be mentioned in Chapter 3.

### 4. First-aid measures

#### Description of first aid measures

##### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

##### After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

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#### **After contact with eyes**

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

#### **After ingestion**

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

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

Treat symptomatically.

## 5. Fire-fighting measures

### **Extinguishing media**

#### **Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>) Dry extinguishing powder. alcohol resistant foam. Atomized water.

#### **Unsuitable extinguishing media**

High power water jet.

### **Specific hazards arising from the chemical**

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>).

### **Special protective equipment and precautions for fire-fighters**

In case of fire: Wear self-contained breathing apparatus.

### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

## 6. Accidental release measures

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

#### **General advice**

See protective measures under point 7 and 8.

#### **For non-emergency personnel**

Wear personal protection equipment (refer to section 8).

#### **For emergency responders**

No special measures are necessary.

### **Environmental precautions**

Discharge into the environment must be avoided.

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

#### **For containment**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

#### **For cleaning up**

Clean contaminated objects and areas thoroughly observing environmental regulations.

### **Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## 7. Handling and storage

### **Precautions for safe handling**

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#### Advice on safe handling

Wear suitable protective clothing. (See section 8.)

#### Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Advice on general occupational hygiene

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and after work.

#### Further information on handling

General protection and hygiene measures: refer to chapter 8

#### Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

##### Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

##### Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 2-8°C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

## 8. Exposure controls/personal protection

### Control parameters

#### Additional advice on limit values

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

### Exposure controls

#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible). Standards: EN 166 or 29 CFR 1910.133

##### Hand protection

In case of prolonged or frequently repeated skin contact:

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of the glove material 0,4 mm

Breakthrough time  $\geq$  8 h

Butyl rubber. - Thickness of the glove material 0,5 mm

Breakthrough time  $\geq$  8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of the glove material 0,5 mm

Breakthrough time  $\geq$  8 h

NBR (Nitrile rubber). - Thickness of the glove material 0,35 mm

Breakthrough time  $\geq$  8 h

PVC (Polyvinyl chloride). - Thickness of the glove material 0,5 mm

Breakthrough time  $\geq$  8 h

The selected protective gloves should satisfy the specifications of standards like EN 374.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

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**Skin protection**

Suitable protective clothing: Lab apron.

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

Exceeding exposure limit values

Suitable respiratory protective equipment: half-mask with filter EN 149 or 29 CFR 1910.134 .

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

**Environmental exposure controls**

No special precautionary measures are necessary.

**9. Physical and chemical properties**

**Information on basic physical and chemical properties**

Physical state:	liquid
Color:	not determined
Odor:	characteristic

**Changes in the physical state**

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Flash point:	not determined

**Explosive properties**

none

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Auto-ignition temperature:	not determined

**Self-ignition temperature**

Gas: not determined

Decomposition temperature: not determined

pH-Value: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic: not determined

Flow time: not determined

Water solubility: not determined

**Solubility in other solvents**

not determined

Partition coefficient n-octanol/water: SECTION 12: Ecological information

Vapor pressure: not determined

Density: not determined

Relative vapour density: not determined

**Other information**

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#### Information with regard to physical hazard classes

Sustaining combustion: Not sustaining combustion

Oxidizing properties  
none

#### Other safety characteristics

Solvent separation test: not determined

Solvent content: not determined

Solid content: not determined

Evaporation rate: not determined

#### Further Information

## 10. Stability and reactivity

### Reactivity

No information available.

### Chemical stability

Stability: Stable

The product is chemically stable under recommended conditions of storage, use and temperature.

### Possibility of hazardous reactions

Hazardous reactions: Will not occur

Refer to chapter 10.5.

### Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

### Incompatible materials

Materials to avoid: Oxidising agent, strong. Reducing agents, strong.

### Hazardous decomposition products

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>).

## 11. Toxicological information

### Route(s) of Entry

Ingestion: May be harmful if swallowed. Inhalation: May be harmful if inhaled. Skin contact: May cause irritation. Eye contact: May cause irritation.

### Information on toxicological effects

#### Toxicocinetics, metabolism and distribution

No data available.

#### Acute toxicity

Based on available data, the classification criteria are not met.  
No data available.

#### Irritation and corrosivity

Based on available data, the classification criteria are not met.  
No data available .

#### Sensitizing effects

Based on available data, the classification criteria are not met.  
No data available .

#### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.  
No data available

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#### **Specific target organ toxicity (STOT) - single exposure**

Based on available data, the classification criteria are not met.  
No data available .

#### **Specific target organ toxicity (STOT) - repeated exposure**

Based on available data, the classification criteria are not met.  
No data available .

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

#### **Aspiration hazard**

Based on available data, the classification criteria are not met.  
No data available .

#### **Specific effects in experiment on an animal**

No data available.

#### **Information on other hazards**

##### **Endocrine disrupting properties**

No data available.

## 12. Ecological information

#### **Ecotoxicity**

The product has not been tested.

#### **Persistence and degradability**

The product has not been tested.

#### **Bioaccumulative potential**

No indication of bioaccumulation potential.

#### **Mobility in soil**

No data available.

#### **Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

#### **Other adverse effects**

No data available.

#### **Further information**

Do not allow to enter into surface water or drains.

## 13. Disposal considerations

#### **Waste treatment methods**

##### **Disposal recommendations**

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

##### **Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

## 14. Transport information

US DOT 49 CFR 172.101

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**Proper shipping name:** Not a hazardous material with respect to these transport regulations. &&  
 Not controlled under DOT

**Marine transport (IMDG)**

**UN number or ID number:** No dangerous good in sense of this transport regulation.

**UN proper shipping name:** No dangerous good in sense of this transport regulation.

**Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**Packing group:** No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)**

**UN number or ID number:** No dangerous good in sense of this transport regulation.

**UN proper shipping name:** No dangerous good in sense of this transport regulation.

**Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**Packing group:** No dangerous good in sense of this transport regulation.

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**Special precautions for user**

refer to chapter 6 - 8

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not relevant

**15. Regulatory information**

**U.S. Regulations**

**National Inventory TSCA**

All components are listed in the TSCA 8 (b) inventory as "active" or exempted. No components are listed under TSCA 12(b)

**State Regulations**

**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

This mixture is classified as not hazardous according to Regulation 29 CFR Part 1910.1200.

**16. Other information**

**Hazardous Materials Information Label (HMIS)**

Health: 0

Flammability: 0

Physical Hazard: 0

Personal Protection: -

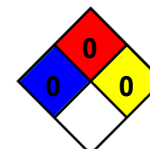
**NFPA Hazard Ratings**

Health: 0

Flammability: 0

Reactivity: 0

Unique Hazard:



**Changes**

Revision date: 08.12.2022

Revision No: 3,0

Rev. 1.0; 05.08.2015, Initial release

Rev. 1.1; 02.03.2016, Documentation of changes: Material no.: B-10-50 -> BU-T-40-20

Rev. 1.2; 08.02.2017, Documentation of changes: Material no.: BU-T-40-20 -> BU-TE-40-10, change of the

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composition

Rev. 2.0; 11.05.2021, Documentation of changes: chapter: 4,5, 6, 7, 8, 9, 10, 11, 12, 15 ,16

Rev. 3.0; 08.12.2022, Changes in chapter: 1,7,16

**Abbreviations and acronyms**

ACGIH: American Conference of Governmental Industrial Hygienists

ASTM: American Society for Testing and Materials.

ATE: acute toxicity estimate

BCF: Bio concentration factor

ECHA: European Chemicals Agency

CAS: Chemical Abstracts Service

CFR: Code of Federal Regulations

DOT: Department of Transportation

d: days

EC50: Half maximal effective concentration

EN: European Norm

EPA: Environmental Protection Agency

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

h: hours

HMIS: Hazardous Materials Identification System

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IBC: Intermediate Bulk Container

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

MARPOL: marine pollution

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect concentration

NTP: National Toxicology Program

N/A: not applicable

NFPA: National Fire Protection Association

UN: United Nations

OECD: Organisation for Economic Co-operation and Development

OSHA: Occupational Safety and Health Administration

PBT: Persistent bioaccumulative toxic

RTECS: Registry of Toxic Effects of Chemical Substances

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

SARA: Superfund Amendments and Reauthorization Act

STEL: short-term exposure limits

TSCA: Toxic Substances Control Act

TWA: time weighted average

VOC: Volatile Organic Compounds

**Other data**

Classification according 29 CFR Part 1910.1200: - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our



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present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*