

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**DNA**

Revision date: 08.12.2022

Product code:

Page 1 of 8

**1. Identification****Product identifier**

DNA

**Further trade names**

This product is part of a kit.

Included in the following article: ASP-X, AS-X, TS-0, DS-6, DC-0, LFS-0, DK-FT-KT-1, DK-KT-1, DK-DP-1, HK-NHS-1, HK-NHS-2, HK-NHS-3, HK-NHS-4, HK-NHS-5, HK-MAL-1, HK-MAL-2, HK-NTA-1, HK-SA-1, HK-SXT-1, HK-FC-1, HK-GFP-1, CNL-X, HK-YS-1, HK-YS-2, HK-YS-3, HK-EA-1, HK-EA-2, HK-CS-1, HK-CS-2, LFS-2, HK-FC-3, NOR-1, CK-X, PF-HN2-2-B48, PF-AB-1, MPC-X, MPC2-X, ENZ-X, ADP-48-2-0

**Recommended use of the chemical and restrictions on use****Use of the substance/mixture**

Scientific research and development

**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: <a href="mailto:info@tge-consult.de">info@tge-consult.de</a> |
|                         | Chemieberatung GmbH          | Tel.: +49(0)2534 6441185   |
|                         | Otto-Hahn-Str. 36            | <a href="http://www.tge-consult.de">www.tge-consult.de</a>           |
|                         | 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 substance is not classified as hazardous in accordance with Regulation 29 CFR 1910.1200(d).

**Label elements****Hazards not otherwise classified**

The components in this formulation (&gt;0,1%) do not meet the criteria for classification as PBT or vPvB.

**3. Composition/information on ingredients****Substances****Chemical characterization**

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

Sum formula: C<sub>15</sub>H<sub>24</sub>N<sub>4</sub>O<sub>8</sub>

Molecular weight: 388.37

**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).

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#### **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.

#### **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>).

#### **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**

Avoid dust formation.

Do not breathe dust.

Wear personal protection equipment (refer to section 8).

#### **Environmental precautions**

Discharge into the environment must be avoided.

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

Take up mechanically.

Treat the recovered material as prescribed in the section on waste disposal.

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.

**Further information on handling**

Avoid generation of dust.

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: -20°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.

Dust should be exhausted directly at the point of origin.

**Protective and hygiene measures**

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.

**Eye/face protection**

Dust protection goggles.

**Hand protection**

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
- Insufficient ventilation and Generation/formation of dust

Suitable respiratory protective equipment: Particulate Respirators, Standard: 42 CFR Part 84 or DIN 143. Type: R/N/P-95/99/100

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: | solid          |                |
| Color:          | not determined |                |
| Odor:           | characteristic |                |
| pH-Value:       |                | not determined |

**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            |
| Sustaining combustion:                                    | Not sustaining combustion |

**Explosive properties**

Dust clouds may present an explosion hazard.

|                            |                |
|----------------------------|----------------|
| 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

**Oxidizing properties**

none

Vapor pressure: not determined

Density: not determined

Water solubility: Immiscible

**Solubility in other solvents**

not determined

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

Viscosity / dynamic: not determined

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| Viscosity / kinematic:   | not determined |
| Flow time:               | not determined |
| Relative vapour density: | not determined |
| Evaporation rate:        | not determined |
| Solvent separation test: | not determined |
| Solvent content:         | not determined |

#### Other information

|                |                |
|----------------|----------------|
| Solid content: | not determined |
|----------------|----------------|

### 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>).

### 11. Toxicological information

#### Information on toxicological effects

##### **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.

##### **Toxicokinetics, metabolism and distribution**

No data available.

##### **Acute toxicity**

Based on available data, the classification criteria are not met.

##### **Irritation and corrosivity**

Based on available data, the classification criteria are not met.

##### **Sensitizing effects**

Based on available data, the classification criteria are not met.

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

Based on available data, the classification criteria are not met.

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

Based on available data, the classification criteria are not met.

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

Based on available data, the classification criteria are not met.

Carcinogenicity (OSHA): Not listed.

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Carcinogenicity (IARC): Not listed.

Carcinogenicity (NTP): Not listed.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Specific effects in experiment on an animal**

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.

**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**

**Proper shipping name:**

Not a hazardous material with respect to these transport regulations. &&  
 Not controlled under DOT

**Marine transport (IMDG)**

**UN 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:**

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

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**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**

DNA, CAS 9007-49-2 not listed under TSCA 12(b) not listed in the TSCA inventory 8 (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.

**Additional information**

The substance is classified as not hazardous according to Regulation 29 CFR Part 1910.1200.

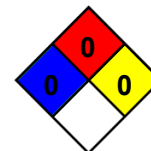
**16. Other information**

**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: 2,0  
 Rev. 1.0; Initial release: 23.10.2020  
 Rev. 2.0; Changes in chapter: 1, 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

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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 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.