

## GeneDireX TMB ELISA Substrate – Solution A

### 1. IDENTIFICATION OF THE PREPARATION/SUBSTANCE AND OF THE COMPANY

Preparation Name : GeneDireX TMB ELISA Substrate

Catalog Number: TM001-B100ML

Use of the preparation: For laboratory use.

Company identification: BIO-HELIX Co., LTD.

Site: <http://www.bio-helix.com>

E-mail: [info@bio-helix.com](mailto:info@bio-helix.com)

### 2. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredients:

Chemical name	% Conc.	CAS#	EC#
3,3',5,5'- Tetramethylbenzidine	5%	54827-17-7	259-364-6
DMSO	10%	67-68-5	200-664-3

### 3. HAZARDS IDENTIFICATION

Form: Liquid

Principle Routes of Exposure/Potential Health effects

Eyes	May cause eye irritation with susceptible persons.
Skin	May cause skin irritation and/or dermatitis.
Inhalation	No information available.
Ingestion	Harmful if swallowed.

Specific effects

Carcinogenic effects	No information available. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No information available.
Sensitization	No information available.
Target Organ Effects	No information available.

HMIS

Health	0
Reactivity	0
Flammability	0

### 4. First Aid Measures

Ingestion: Never give anything by mouth to an unconscious person. Consult a physician.

Inhalation: Move to fresh air. If symptoms persist, call a physician.

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Skin contact: Wash off immediately with plenty of water. If symptoms persist, call a physician.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If eye irritation persists, consult a specialist.

Notes to physician: Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

Suitable extinguishing agents: Dry chemical.

Protective equipment: Wear self-contained breathing apparatus and protective suit.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment.

Methods for cleaning up: Soak up with inert absorbent material.

## 7. HANDLING AND STORAGE

Handling: Wash thoroughly after handling. Wash hands before eating. Keep container tightly closed.

Use with adequate ventilation.

Storage: Keep container closed and well-ventilated place when not in use. Store at room temperature.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters.

Additional information:

General protective and hygienic measures: Prevent product from entering drains.

Engineering measures: Ensure adequate ventilation, especially in confined areas.

Personal protection: In case of insufficient ventilation wear suitable respiratory equipment

- Respiratory protection: Protective gloves.

- Hand protection: Safety glasses with side-shields.

- Eye protection: Lightweight protective clothing.

- Skin protection: Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls: In case of insufficient ventilation wear suitable respiratory equipment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance: Liquid.

Color: Colorless.

Odor: Sulphurous.

Boiling point: Not applicable.

Melting point: Not applicable.

Flash Point: Not applicable.

Autoignition temperature: Do not auto ignition.

Oxidizing properties: Not applicable.

Solubility in/miscibility with water: Moderate.

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## 10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Materials to avoid: Safe under conditions of normal use.

Hazardous decomposition products: No information available.

Hazardous polymerization: Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

Acute toxicity:

DMSO	LD50 Oral – Rat – 14.500 mg/kg
	LC50 Inhalation – Rat – 4h – 40250 ppm
	LD50 Dermal – Rabbit – >5.000 mg/kg

Primary irritant effect: No irritant effect.

On the skin: Mild irritation

On the eye: No irritant effect.

Sensitization: No sensitizing effects known.

## 12. ECOLOGICAL INFORMATION

Mobility: No information available.

Biodegradation: No information available.

Bioaccumulation: No information available.

## 13. DISPOSAL CONSIDERATIONS

Recommendation: Dispose according to current regional and national rules.

## 14. TRANSPORT INFORMATION

Proper shipping name: Not classified as dangerous in the meaning of transport regulations. Road/Railway

Haulage ADR/RID: Not restricted.

Sea Freight IMO (IMDG): Not restricted.

Air Freight IATA (ICAO): Not restricted.

UN Number: Not restricted.

## 15. REGULATORY INFORMATION

None of the chemicals in this product are listed as Toxic Pollutants under the CWA. None of the chemicals in this product are considered highly hazardous by OSHA.

## 16. OTHER INFORMATION

This material is sold for research and development purposes only. It is not for any human or animal therapeutic or clinical diagnostic use. It is not intended for food, drug, household, agricultural, or cosmetic use. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material.

# Safety Data Sheet

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Since Bio-Helix Co., Ltd. cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. The information in this SDS does not constitute a warranty, express or implied, including any implied warranty of merchantability or fitness for any particular purpose.