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# Material Safety Data Sheet

Revision Date: 28th-August-2022



## 1. Product and Company Information

Product GC Enhancer  
Cat. No. AG101-01  
Company TransGen Biotech Co., Ltd.  
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## 2. Composition

Chemical Name	CAS No.	Concentration or Concentration Range (w/w %)
4-Methylmorpholine tetraoxide 7529-22-8 ( 40-70 )	7529-22-8	40-70

It is recommended to handle all chemicals with caution.

## 3. Hazards Identification

### Health Hazards

Skin corrosion, irritation Category 2  
Serious eye damage/eye irritation Category 2A  
Specific target organ toxicity (single exposure) Category 3

### Physical Hazards

no harm

### Environmental hazards

no harm

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## Warning

warn

## Hazard Symbol



## Dangerous Goods

### Graphic Symbol Name

exclamation mark

### Hazard Statements

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

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## 4. First Aid Measures

Eye contact	Immediately rinse with plenty of water for at least 15 minutes, including under the eyelids. Immediate medical attention is required.
Skin contact	Immediately rinse with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before reuse. Immediate medical attention is required.
Inhalation	Remove to fresh air. If breathing stops, give artificial respiration. If symptoms persist, call a doctor.

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Ingestion	Do not give anything by mouth to an unconscious victim. Do not induce vomiting without medical advice. If symptoms occur, seek medical attention.
Notes to physicians	Treat symptomatically.

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## 5. Fire-Fighting Measures

### Extinguishing media

Suitable extinguishing media	Water spray, Carbon dioxide (CO <sub>2</sub> ), Foam, Dry powder
Unsuitable extinguishing media	No information available

### Special dangers

Not known

### Firefighters' protective equipment and precautions

Wear self-contained positive pressure breathing apparatus and protective clothing.

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## 6. Accidental Release Measures

Personal precautions	Ensure adequate ventilation Avoid contact with skin, eyes or clothing Wear personal protective equipment.
Methods for cleaning up	Use inert absorbent material to soak up spill.
Environmental precautions	Avoid discharge into drains and waterways as much as possible

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## 7. Handling and Storage

Precautions for safe handling	Always wear recommended personal protective equipment. Do not get in eyes, skin or clothing. Do not ingest. If there is a respiratory hazard during normal use of the material, use adequate ventilation and/or wear appropriate respirator.
Conditions for safe storage	Store in a sealed package in a dry, cool and well-ventilated place. Keep in a properly labeled container. Store in accordance with local

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	regulations.
Specific use	For research use only. Not for diagnostic use.

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## 8. Exposure Controls/Personal Protection

### Control parameter

MAC(mg/m <sup>3</sup> )	No standards available
PC-TWA(mg/m <sup>3</sup> )	No standards available
PC-STEEL(mg/m <sup>3</sup> )	No standards available
TLV-C(mg/m <sup>3</sup> )	No standards available
TLV-TWA(mg/m <sup>3</sup> )	No standards available
TLV-STEEL(mg/m <sup>3</sup> )	No standards available

### Exposure controls

#### Personal protective equipment

Respiratory protection	In case of insufficient ventilation, use respirators with their components tested and approved under appropriate government standards
Hand Protection	Wear appropriate gloves, Glove material: Compatible chemical resistant gloves.
Eye Protection	Tightly sealed goggles
Skin and Body Protection	Wear a lab coat to protect yourself.
Hygiene Measures	Operate in accordance with good industrial hygiene and safety practice
Environmental exposure control	Avoid discharge into drains and waterways as much as possible

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## 9. Physical and Chemical Properties

### General Information

Form	Liquid
Solubility in water	Soluble
Others	No data available

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## 10. Stability and Reactivity

Reactivity	Not known
Stability	Stable under normal storage conditions
Hazardous reactions	Hazardous reaction has not been reported.
Materials to avoid	No dangerous reaction known under conditions of normal use.
Hazardous polymerization	Hazardous polymerization does not occur.
Decomposition products	No data available

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## 11. Toxicological Information

### Information on toxicological effects

Acute Toxicity	No data available
Oral-rat LD50 (mg/kg)	No data available
Dermal-rat LD50 (mg/kg)	No data available
Inhalation-rat LC50 (mg/m <sup>3</sup> )	No data available
Subcutaneous-rat LD50 (mg/kg)	No data available
Intravenous-rat LD50 (mg/kg)	No data available
Peritoneal cavity-rat LD50 (mg/kg)	No data available
Oral-mouse LD50 (mg/kg)	No data available
Dermal- mouse LD50 (mg/kg)	No data available
Intravenous-mouse LD50 (mg/kg)	No data available
Peritoneal cavity-mouse LD50 (mg/kg)	No data available

### Main routes of exposure

Stimulate	Skin irritation, serious eye damage/eye irritation
Corrosive	Data identifiable but insufficient for classification
Sensitization	Data identifiable but insufficient for classification
Exposure Specific target organ toxicity - single exposure	May cause respiratory irritation
Exposure Specific target organ toxicity - repeated exposure	Data identifiable but insufficient for classification

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Carcinogenicity	Data identifiable but insufficient for classification
Germ cell mutagenicity	Data identifiable but insufficient for classification
Reproductive toxicity	Data identifiable but insufficient for classification
Inhalation hazard	Data identifiable but insufficient for classification

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## 12. Ecological Information

Carcinogenic effects	No data available
Mobility	No data available
In vivo degradation	No data available
Bioaccumulation	No data available

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## 13. Disposal Considerations

### Disposal Precautions

Waste should be avoided or minimized as much as possible. Empty containers or liners may retain some product residues. The substance and its container must be disposed of in accordance with approved disposal techniques. The disposal of the product, its solution or any by-products should refer to relevant national and local regulations.

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## 14. Transport Information

Hazard class	No data available
UN number	No data available
Packing group	No data available
Packing method	No data available
Transportation considerations	Package should be intact upon departure. Loading should be handled carefully. During transportation, prevent the containers from leakage, collapse, fall or damage. Transportation combined with oxidants, edible chemicals, etc. is strictly prohibited. It should be protected from exposure to sun light, rain and high temperature during transportation. The vehicle should

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be thoroughly cleaned after transportation. Road transportation must follow the prescribed route.

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## 15. Regulatory Information

The following laws, regulations and standards have made corresponding provisions on the safe use, storage, transportation, loading and unloading, classification and marking of chemicals: The Production Safety Law of the People's Republic of China (adopted at the 27th meeting of the Standing Committee of the Ninth People's Congress on June 29, 2002); The Environmental Protection Law of the People's Republic of China (adopted at the 11th meeting of the Standing Committee of the Seventh National People's Congress on December 26, 1989)

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## 16. Other Information

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation. These recommendations are based on prudent professional judgment. This information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. **Since the Company cannot control the actual methods, quantities, 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 MSDS does not constitute a warranty of marketability or suitability for any particular purpose, expressed or implied.**

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End of Safety Data Sheet