

# Safety Data Sheet

Revision date 25-Dec-2023

Version 1.0

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### Identification of the substance or mixture

Product code EG20130  
Product name T4 UvsX Recombinase

### Company/undertaking identification

**Jiangsu Yugong Biotech Co., Ltd.**  
Building E, International Pharmaceutical Innovation Industrial Park,  
28 Yuehu Road, Lianyungang Area,  
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Tel: +86-518-85586628

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

## SECTION 2: Hazards identification

### GHS Classification

Signal Word NONE  
Hazard pictograms NONE  
Health hazards Not Hazardous  
Physical hazards Not Hazardous  
Environmental hazards Not Hazardous  
Hazard Statements Not Applicable

### Precautionary Statements

Prevention Not Applicable  
Response Not Applicable  
Storage Not Applicable  
Disposal Not Applicable

### Other hazards

Not Applicable

### HMIS

Health	0
Flammability	0
Reactivity	0

## SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

## SECTION 4: First aid measures

### Description of first aid measures

<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>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Skin contact</b>	Rinse skin with water. Immediate medical attention is not required.
<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>Note to physicians</b>	Treat symptomatically.

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

Not Applicable.

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

None.

## SECTION 5: Firefighting measures

### Extinguishing media

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

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

Not known

**Advice for firefighters**

Standard procedure for chemical fires.

**SECTION 6: Accidental release measures**
**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Always wear recommended Personal Protective Equipment

Use personal protection equipment

See section 8 for more information

**Environmental precautions**

No special environmental precautions required

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

Soak up with inert absorbent material.

**Reference to other sections**

See section 8 for more information.

**SECTION 7: Handling and storage**
**Precautions for safe handling**

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

**Storage Conditions**

Store at -25°C to -15°C

**Specific end use(s)**

For research use only.

**SECTION 8: Exposure controls/personal protection**
**Control parameters**

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Glycerol	15 mg/m <sup>3</sup> 5 mg/m <sup>3</sup>	None	None	None

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Glycerol	None	None	None

**Exposure Limits** Contains no substances with occupational exposure limit values.

**Engineering measures** Ensure adequate ventilation, especially in confined areas

### Exposure controls

#### 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 protection** Tight sealing safety goggles

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

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

**Environmental exposure controls** No special environmental precautions required.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	liquid
<b>Color</b>	Transparent
<b>Odor</b>	No data
<b>Molecular Weight</b>	No data
<b>Melting point / melting range</b>	No data
<b>Boiling point / boiling range</b>	No data
<b>Flammability (solid, gas)</b>	No data
<b>Lower explosion limit</b>	No data
<b>Upper explosion limit</b>	No data
<b>Flash point</b>	No data
<b>Autoignition Temperature</b>	No data
<b>Decomposition temperature</b>	No data
<b>pH</b>	No data
<b>Evaporation rate</b>	No data
<b>Viscosity</b>	No data
<b>Solubility</b>	No data
<b>Partition coefficient: n-octanol/water</b>	No data
<b>Vapor Pressure</b>	No data
<b>Specific gravity</b>	No data

<b>Relative density</b>	No data
<b>Vapor density</b>	No data
<b>Explosive properties</b>	No data
<b>Oxidizing properties</b>	No data
<b>Particle characteristics</b>	No data

### Other information

#### Information with regard to physical hazard classes

No information available

#### Other safety characteristics

No information available

## SECTION 10: Stability and reactivity

<b>Reactivity</b>	None known.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous reaction has not been reported.
<b>Conditions to avoid</b>	No information available.
<b>Incompatible materials</b>	Strong acids. Oxidizing agent. Potassium. Isocyanates. Ammonia. Bases.
<b>Hazardous decomposition products</b>	Carbon oxides.

## SECTION 11: Toxicological information

#### Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Glycerol	= 12600 mg/kg (Rat)	> 10 g/kg(Rabbit)	>2.75 mg/L(Rat)

### Principal Routes of Exposure

<b>Acute toxicity</b>	Data are conclusive but insufficient for classification.
<b>Skin corrosion/irritation</b>	Data are conclusive but insufficient for classification.
<b>Serious eye damage/irritation</b>	Data are conclusive but insufficient for classification.
<b>Respiratory or skin sensitization</b>	Data are conclusive but insufficient for classification.

<b>Specific target organ toxicity (STOT)–single exposure</b>	Data are conclusive but insufficient for classification.
<b>Specific target organ toxicity (STOT)–repeated exposure</b>	Data are conclusive but insufficient for classification.
<b>Carcinogenicity</b>	Data are conclusive but insufficient for classification.
<b>Germ cell mutagenicity</b>	Data are conclusive but insufficient for classification.
<b>Reproductive toxicity</b>	Data are conclusive but insufficient for classification.
<b>Aspiration hazard</b>	Data are conclusive but insufficient for classification.

## SECTION 12: Ecological information

### Toxicity

Hazardous to the Aquatic Environment.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Glycerol	No data available	No data available	No data available	No data available	logPow-1.76

<b>Mobility in soil</b>	No information available.
<b>Persistence and degradability</b>	No information available.
<b>Bioaccumulative potential</b>	Material does not bioaccumulate.

### Results of PBT and vPvB assessment

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

<b>Other adverse effects</b>	No information available
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## SECTION 13: Disposal considerations

### 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 according to approved disposal technique. 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.

## SECTION 14: Transport information

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

Not regulated in the meaning of transport regulation

<b>UN number or ID number</b>	Not Applicable
<b>UN proper shipping name</b>	Not Applicable
<b>Transport hazard class(es)</b>	Not Applicable
<b>Packing group</b>	Not Applicable

**Environmental hazards** Not Applicable

**Special precautions for user** Not Applicable

**Maritime transport in bulk according to IMO instruments**

Not Applicable

**SECTION 15: Regulatory information****US Federal Regulations****SARA 313**

This product is not regulated by SARA.

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

This product does not contain HAPs.

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**WHMIS Hazard Class**

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.

**National Regulations – Brazil**

Not regulated.

**SECTION 16: Other information****References**

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

**Abbreviations and acronyms**

**TWA** - Time-Weighted Average

**OELs** - Occupational Exposure Limits

**STEL** - Short Term Exposure Limit

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**KECL** - Korean Existing and Evaluated Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**CEPA** - Canadian Environmental Protection Act

**EPA** - Environmental Protection Agency

**OSHA** - Occupational Safety and Health Administration of the US Department of Labor

**IATA** - International Air Transport Association

**DOT** - Department of Transportation

**IMDG** - International Maritime Dangerous Goods

**ACGIH** - American Conference of Governmental Industrial Hygienists

**NIOSH** - National Institute for Occupational Safety and Health

**AIHA** - American Industrial Hygiene Association

**HMIS** - Department of Defense Hazardous Materials Information System

**NTP** - National Toxicology Program

**IARC** - International Agency for Research on Cancer

"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 present unknown hazards and should be used with caution. Since the Company 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.

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**End of Safety Data Sheet**