

Material Safety Data Sheet

MSDS No.: MSDS#8052441E
Product Name: SuperCut Fast Restriction Enzymes XhoI

First Revision Date: 2022.02.13
Last Revision Date: 2024.11.29 Version No.:2.0

SECTION 1: Chemical Product & Company Identification

Identification of the Substance or Mixture

Product code	8052441
Product name	SuperCut Fast Restriction Enzymes XhoI

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses
For research use only. Not for use in diagnostic procedures.

Uses advised against
Not for consumer use.

Company/undertaking identification

Manufacturer: Shenzhen Dakewe Bio-engineering Co., Ltd.
Address: Room 702-703, Building No.1, Shenzhen Biomedicine Innovations Industrial Park, No.14 Jinhui Road, Kengzi Street, Pingshan District, Shenzhen, China
Tel: (86-755)86235300 Email: RD@dakewe.com Homepage: www.dakewe.com

24 hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident. Spill, Leak, Fire, Exposure, or Accident. Call CHEMTREC

International: +1-703-741-5970 and +1-703-527-3887
China: 4001-204937
the USA: 1-800-424-9300 and +1-703-527-3887

SECTION 2: Hazards identification

Australian SDS Statement
Not classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonised System (GHS)

GHS Classification

Health hazards
Not Hazardous

Physical hazards
Not Hazardous

Environmental hazards
Not Hazardous

Label elements

Signal Word
None

Hazard pictograms
None

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Hazard pictograms names

None

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

SECTION 3: Composition/information on ingredients

Component	CAS No	Common name	EINECS No.	Weight %
Glycerin	56-81-5	-	200-289-5	40-70

We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Description of first aid measures

Skin contact	Rinse skin with water. Immediate medical attention is not required.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
Inhalation	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
Notes to Physician	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

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Suitable extinguishing media

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media

No information available.

Special hazards arising from the substance or mixture

Not known

Protective equipment and precautions 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.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

Specific end use(s)

For research use only. Not for use in diagnostic procedures.

SECTION 8: Exposure controls/personal protection

Control parameters

ChemicalName	Australia STEL	Australia	Australia – Skin Absorbers	Australia - OES - Peak
Glycerin 56-81-5	None	10 mg/m ³	None	None

ChemicalName	New Zealand – Workplace Exposure Limits	New Zealand TWA	New Zealand STEL	New Zealand Ceiling Limits
Glycerin 56-81-5	None	10 mg/m ³	None	None

Chemical Name	China OEL (MAC)	China - Skin Absorbers	Hong Kong OEL
Glycerin 56-81-5	None	None	None

ChemicalName	Korea OEL (CEILING)	Korea OEL (TWA)	Korea OEL (STEL)
Glycerin 56-81-5	None	10 mg/m ³	None

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Chemical Name	Korea OEL (Skin Notations)	Korea PEL (STELs)	Korea PEL (TWAs)
Glycerin 56-81-5	None	None	None

Chemical Name	Korea OEL (Carcinogens)	Korea OEL (Germ Cell Mutagenicity)	Korea OEL (Reproductive Toxicity)
Glycerin 56-81-5	None	None	None

Chemical Name	Taiwan OEL - TWA	Taiwan OEL (Skin notations, Carcinogens)	Taiwan OEL (STELs)	Taiwan OEL (Ceilings)
Glycerin 56-81-5	None	None	None	None

Chemical Name	Singapore OEL (PEL)	Singapore OEL (STEL)
Glycerin 56-81-5	10 mg/m ³	None

Chemical Name	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Glycerin 56-81-5	None	None

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

Appearance liquid
Odour No data available
Odour Threshold No data
Molecular Weight No data
pH No data available
Melting point / melting range °C No data °F No data
Boiling point / boiling range °C No data °F No data

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Flash point °C No data °F No data
Autoignition Temperature °C No data °F No data
Decomposition temperature °C No data °F No data
Evaporation rate No data
Flammability (solid, gas) No data available
Upper explosion limit No data
Lower explosion limit No data
Vapour Pressure No data
Vapour density No data
Relative density No data
Specific gravity No data
Solubility No data available
Partition coefficient: No data available
n-octanol/water Viscosity No data
Explosive properties No data
Oxidising properties No data

Other information

No data available.

SECTION 10: Stability and reactivity

Reactivity None known.
Chemical stability Stable under normal conditions.
Possibility of hazardous reactions Hazardous reaction has not been reported.
Conditions to avoid No information available.
Incompatible materials No dangerous reaction known under conditions of normal use.
Hazardous decomposition products No data available.

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Glycerin	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m ³ (Rat)

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification.
Skin corrosion/irritation Data are conclusive but insufficient for classification
Serious eye damage/irritation Data are conclusive but insufficient for classification
Respiratory or skin sensitisation Data are conclusive but insufficient for classification
Specific target organ toxicity (STOT) – single exposure Data are conclusive but insufficient for classification
Specific target organ toxicity (STOT) – repeated exposure Data are conclusive but insufficient for classification
Carcinogenicity Data are conclusive but insufficient for classification
Germ cell mutagenicity Data are conclusive but insufficient for classification
Reproductive toxicity Data are conclusive but insufficient for classification
Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

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Ecotoxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Glycerin	No data available	Daphnia magna EC50>500 mg/L (24h)	No data available	No data available	logPow-1.76

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

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

Other adverse effects No information available.

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 regulations

UN number	Not Applicable
UN proper shipping name	Not Applicable
Transport hazard class(es)	Not Applicable
Packing group	Not Applicable

Environmental hazards

Not Applicable

Special precautions for user

Not Applicable

Transport in bulk according to Annex II of MARPOL and the IBC Code

Not Applicable.

SECTION 15: Regulatory information

International Inventories

Chemical Name	US TSCA	Canada (DSL)	NDSL	PICCS (Philippines)
Glycerin	Listed	Listed	-	Listed

Chemical Name	ENCS (Japan)	IECSC - China Inventory AICS (Australia) of Existing Chemical Substances	South Korea (KECL)	AICS (Australia)
Glycerin	Listed	Listed	Listed	Listed

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Chemical Name	NZIoC - New Zealand Inventory of Chemicals	EINECS (European Union)	ELINCS (European List of Notified Chemical Substances)
Glycerin	Listed	Listed	-

United Nations-Chemical Weapons Convention, CWC

Not Applicable.

Korea

Occupational Safety and Health Act

Chemical Name	ISHA - Controlled substance- Metal	ISHA - Controlled substance- Organic material	ISHA - Controlled substance- Acids and bases	ISHA - Controlled substance- Gas phase substance
Glycerin	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Chemical Name	ISHA - Prohibition of production, import, transfer or supply of hazardous substances	ISHA - Hazardous substances requiring permission	Special management materials
Glycerin	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Harmful agents subject to work environment monitoring - Organic compounds	Harmful agents subject to work environment monitoring - Metals	Harmful agents subject to work environment monitoring - Acids and alkalis	Harmful agents subject to work environment monitoring - Gas-phase substances	Harmful agents subject to work environment monitoring - Dusts
Glycerin	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Harmful agents subject to workers requiring health examination - Organic compounds	Harmful agents subject to workers requiring health examination - Metals	Harmful agents subject to workers requiring health examination - Acids and alkalis	Harmful agents subject to workers requiring health examination - Gas-phase substances	Harmful agents subject to workers requiring health examination - Dusts
Glycerin	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Korea OEL (CEILING)	Korea OEL (TWA)	Korea OEL (STEL)	Korea OEL (SkinNotations)
Glycerin	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Korea OEL (Carcinogens)	Korea OEL (Germ Cell Mutagenicity)	Korea OEL (Reproductive Toxicity)	Korea PEL (STELs)	Korea PEL (TWAs)
Glycerin	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Chemical Name	ISHA - Harmful or Dangerous Substances Subject to Submission of Process Safety Reports - Storage	ISHA - Harmful or Dangerous Substances Subject to Submission of Process Safety Reports - Manufacturing or Handling
Glycerin	Not Applicable	Not Applicable

Chemical Control Act

Chemical Name	Toxic substances	Prohibited substances	Restricted substances
Glycerin	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Threshold (%)	Production/Use Quantity Limits	Custody/Storage Quantity Limits
Glycerin	Not Applicable	Not Applicable	Not Applicable

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Chemical Name	Pollutant Release and Transfer Registers (PRTR) - Group I	Pollutant Release and Transfer Registers (PRTR) - Group II
Glycerin	Not Applicable	Not Applicable

Chemical Registration, Evaluation, etc. Act (K-REACH)

Chemical Name	Ministry of Environment – CMR risk	Ministry of Environment - Critically Controlled Substance	Existing substances eligible for registration	Substances Exempted from Registration or Notification -Annex 1	Substances Exempted from Registration or Notification-Annex 2
Glycerin	Not Applicable	Not Applicable	Not Applicable	Index No. 4-d	Not Applicable

Hazardous Substance Safety Control Act

Chemical Name	Hazardous Substance Safety Control Act
Glycerin	Not Applicable

Wastes Control Act

Chemical Name	Wastes Control Act
Glycerin	Not Applicable

Taiwan

Chemical Name	Toxic Chemical Substances Control Act - Classification and Control Levels	Toxic Chemical Substances Control Act - Threshold Regulated Quantities	Hazard Prevention Standard for Specified Chemical Substances
Glycerin	Not Listed	Not Listed	Not Listed

China

Chemical Name	China - Catalogue of Occupational Hazard Factors	China - Dangerous Goods List	China - Catalog of Hypertoxic Chemicals	China - List of Dangerous Chemicals for Priority Management
Glycerin	Not Listed	Not Listed	Not Listed	Not Listed

SECTION 16: Other information

For research use only. Not for use in diagnostic procedures.

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/NDSL -Canadian Domestic Substance List/Non-Domestic Substance List

KECL -Existing and Evaluated Chemical Substances in Korea

ENCS -Existing and New Chemical Substances in Japan

IECSC -Inventory of Existing Chemical Substances in China

PICCS -Philippine Directory of Chemicals and Chemical Substances

AICS -Australian List of Chemical Substances

NZIoC -New Zealand Chemicals Inventory

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

TSCA -U.S. Toxic Substances Control Challenge Chapter 8(b) Table of Contents

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CEPA -Canadian Environmental Protection Act

EPA -Environmental Protection Agency

OSHA -U.S. Department of Labor Occupational Safety and Health Administration

IATA -U.S. Department of Labor Occupational Safety and Health Administration

DOT -Department of Transportation

IMDG -International Sea Freight Dangerous Goods

ACGIH -American Association of Government Industrial Hygiene Professionals

NIOSH -National Institute for Occupational Safety and Health

AIHA -American Industrial Hygiene Association

HMIS -Department of Defense Hazardous Substances 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