

Material Safety Data Sheet

MSDS No.: MSDS#EXBR017

First Revision Date: 2024.04.15

Product Name: EXREsolve™ Prestained Protein Markers 10-180 kDa

Last Revision Date: 2024.04.15 Version No.:1.0

Section 1: Chemical Product & Company Identification

Identification of the Substance or Mixture

Product Code: EXBR017

Product Name: EXREsolve™ Prestained Protein Markers 10-180 kDa

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Identified uses

For research use only. Not applicable for diagnostic procedures.

Uses advised

Not for consumer use.

Identification of the Company/Undertaking

Exreprotein, LLC. 2726
Summer Street NE
Minneapolis, MN 55413
(800) 215-0202
www.exreprotein.com

Emergency Telephone Number
(800) 215-0202

Section 2: Hazards Identification

Emergency Overview

Physical state	liquid
Overview	Not Hazardous

CHS Classification

Not Hazardous

Label elements

Signal Word

None

Hazard pictograms

None

Hazard Statements

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Not Hazardous

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Physical and chemical hazards

Hazardous reaction has not been reported.

Health hazards

Not Applicable

Environmental hazards

Not Applicable

Other hazards

Not Applicable

Section 3: Composition/information on ingredients

Chemical Name	CAS No	EINECS-No.	Weight-%
Glycerin	56-81-5	200-289-5	40-70
Sodium lauryl sulfate	151-21-3	205-788-1	1-5

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.

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Section 5: Firefighting measures

Extinguishing media

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.

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.

Conditions for safe storage, including any incompatibilities

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

Storage Conditions

Store at -20 °C.

Specific end use(s)

For research use only. Not for use in diagnostic procedures

Section 8 : Exposure controls/personal protection

Control parameters

Exposure Limits

Contains no substances with occupational exposure limit values.

Chemical Name	China OEL (MAC)	China - Skin Absorbers
Glycerin 56-81-5	None	None
Sodium lauryl sulfate 151-21-3	None	None

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

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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

Physical state	liquid	
Odour	No data	
Odour Threshold	No data	
pH	No data	
Melting point / melting range	°C No data	°F No data
Boiling point / boiling range	°C No data	°F No data
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	
Upper explosion limit	No data	
Lower explosion limit	No data	
Vapour Pressure	No data	
Relative density	No data	
Specific gravity	No data	
Solubility	No data	
Partition coefficient: n-octanol/water	No data	
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.

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Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Glycerin	= 12600 mg/kg Oral	> 10 g/kg(Rabbit)	>2.75mg/L(Rat)
Sodium lauryl sulfate	= 1288 mg/kg (Rat)	= 200 mg/kg(Rabbit)	>3900mg/m3 (Rat)

Principal Routes of Exposure

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)–singleexposure

Data are conclusive but insufficient for classification

Specific target organ toxicity (STOT)–repeatedexposure

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

Toxicity

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	No data available	No data available	No data available	logPow-1.75
Sodium lauryl sulfate	Pseudokirchneriella Subcapitata EC503.59 - 15.6 mg/L (96 h) Pseudokirchneriella subcapitata EC50=117 mg/L (96 h) Desmodesmus subspicatus EC5030 -100 mg/L (96 h) Desmodesmus subspicatus EC50=53 mg/L (72 h)	Daphnia magna EC50=1.8 mg/L (48 h)	No data available	No data available	logPow1.6

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Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects

Contains a known or suspected endocrine disruptor.

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 or ID 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

Maritime transport in bulk according to IMO instruments

Not Applicable.

SECTION 15: Regulatory information

International Inventories

Not Applicable.

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

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

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

UN (United Nations) - Chemical Weapons Convention (CWC)

Not Applicable

Korea

Occupational Safety and Health Act

Chemical Name	ISHA - Substances to be controlled - Metals	ISHA - Substances to be controlled - Organic Substances	ISHA - Substances to be controlled - Acids and bases	ISHA - Substances to be controlled - Gas-phase substances
Glycerin	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Sodium lauryl sulfate	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Chemical Name	ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA - Harmful Substances Requiring Permission	Special management materials
Glycerin	Not Applicable	Not Applicable	Not Applicable
Sodium lauryl sulfate	Not Applicable	Not Applicable	When the ratio is 0.3 %(volume) or more

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
Sodium lauryl sulfate	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
Sodium lauryl sulfate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Korea OEL (CEILING)	Korea OEL (TWA)	Korea OEL (STEL)	Korea OEL (Skin Notations)
Glycerin	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Sodium lauryl sulfate	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
Sodium lauryl sulfate	Not Applicable	Applicable	Not Applicable	Not Applicable	Not Applicable

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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
Sodium lauryl sulfate	Not Applicable	Not Applicable

Chemicals Control Act

Not Applicable

Chemical Name	Toxic substance	Prohibited substance	Restricted substance
Glycerin	Not Applicable	Not Applicable	Not Applicable
Sodium lauryl sulfate	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Threshold Values (%)	Quantity limit for manufacture/use	Quantity limit for custody/storage
Glycerin	Not Applicable	Not Applicable	Not Applicable
Sodium lauryl sulfate	Not Applicable	Not Applicable	Not Applicable

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

Act on Registration, Evaluation, etc. of Chemicals (K-REACH)

Not Applicable

Chemical Name	Ministry of Environment - CMR risk	Ministry of Environment - Critically Controlled Substance	Existing substances subject to 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
Sodium lauryl sulfate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Safety Control of Dangerous Substances Act

Not Applicable

Chemical Name	Safety Control of Dangerous Substances Act
Glycerin	Not Applicable
Sodium lauryl sulfate	Not Applicable

Wastes Control Act

Not Applicable

Chemical Name	Wastes Control Act
Glycerin	Not Applicable
Sodium lauryl sulfate	Not Applicable

Singapore

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Not Applicable

Chemical Name	Singapore - Poisons List
Glycerin	Not Listed
Sodium lauryl sulfate	Not Listed

China

Not Applicable

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
Sodium lauryl sulfate	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/>
- LOLIdatabase:<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 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 Labour
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

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"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.

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End of Safety Data Sheet