

Safety Data Sheet: *Surfactin*

1. Identification of the substance/mixture and of the Company

1.1. Product identifiers

Product name	<u>Surfactin</u>	Formula	$C_{53}H_{93}N_7O_{13}$
Product Code	SU	RTECS	N.A.
CAS #	<u>24730-31-2</u>	Molecular weight	1036.30
EC Number #	<u>607-428-2</u>	Substance? Mixture?	Substance
Synonyms	<ul style="list-style-type: none"> • Surfactin • Surfactin C • Surfactin peptide 	Source	Bacillus subtilis
		Date of version	20 October, 2022

1.2. Intended uses of the substance or mixture and uses advised against

1.2.1. Intended use:	1.2.2. Uses advised against:
<ul style="list-style-type: none"> • Research and development. • Laboratory reagent. • To be used by professionals only 	<ul style="list-style-type: none"> • Not for drug, • Not to be used in humans or animals. • Not food additive

1.3. Details of the supplier of the SDS

FERMENTEK Ltd
4 Yatziv street, POB 47120
Jerusalem 97800,
Israel

Tel: +972 2 5853953
Fax: +972 2 5853943
eMail:
fermentek@fermentek.com
Website: www.fermentek.com

1.4. Emergency Telephone number

For chemical emergency spill, leak, fire, exposure, or accident calls CHEMTREC day or night:
Within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-527-3887

This company is the manufacturer of the product, and the supplier of the safety data sheet

2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1. GHS Classification According to EU Reg. 1272/2008 and US OSHA 1910.1200)

Not a hazardous substance by GHS.

2.2. GHS Label elements, including precautionary statements

2.2.1. Pictogram: {NONE}

2.2.2. Signal word {NONE}

2.2.3. GHS Hazard Statements

None		
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2.2.4. GHS Precautionary Statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash {hands} thoroughly after handling.

P284	Wear respiratory protection
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2.2.5. GHS Response Phrases

3. Composition/information on ingredients

Substance	
Substance name:	Surfactin
Concentration	100%
CAS Registry#:	24730-31-2
EC#:	607-428-2
Molecular Formula:	C53H93N7O13
Molecular Weight:	1036.30
Classification	Not a hazardous substance according to GHS.
Mixture?	Substance.

4. First Aid Measures

4.1. Description of First Aid Measures

General advice:	If medical attention is required, show this safety data sheet to the doctor
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless advised to do so by a physician or Poison Control Center. Seek medical attention.
Skin Contact:	Wash affected area with soap and water. Consult a physician if any exposure symptoms are observed
Eye contact:	Immediately rinse eyes with plenty of water for at least 15 minutes. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

N.A.	N.A.
	N.A.

4.3. Indication of any immediate medical attention and special treatment needed

N.A.	N.A.
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5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	None known

5.2. Other information

Hazardous combustion products	Carbon oxides; Nitrogen oxides
Advice for firefighters	Wear self-contained breathing apparatus for fire fighting if necessary. Wear protective suit.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Keep people away from and upwind of spill/leak.
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6.2. Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
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6.3. *Methods and material for containment and cleaning up*

Methods for containment:	Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.
Methods for cleaning up:	Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Cover liquid spill with sand, earth or other non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, and vermiculite). Cover powder spill with plastic sheet or tarp to minimize spreading. Sweep up and shovel into suitable containers for disposal.

7. *Handling and storage*

7.1. *Precautions for safe handling*

Advice on safe handling:	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.
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7.2. *Conditions for safe storage, including any incompatibilities*

Storage Conditions:	Keep container tightly closed in a dry and well-ventilated place. Reportedly, Light sensitive. Store at -20 °C. Some other manufacturers may advice storing under inert atmosphere.
Suitable packaging	
Incompatible materials:	None known based on information available.

8. *Exposure Controls/Personal Protection*

8.1. *Control parameters*

Control parameters	Components with workplace control parameters
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8.2. *Exposure controls*

Appropriate engineering controls	Showers, Eyewash stations, Ventilation systems Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Use fumehood for routine work.
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8.3. *Personal protective equipment*

[PPE=Personal Protection Equipment]

PPE: Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
PPE: Hand Protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands
PPE: Eye Protection:	Use a face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)
PPE: Skin and Body Protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

9. Physical and chemical properties

9.1. Physical / chemical properties

Physical State at room temperature	Solid / powder
Color	White to yellowish powder
No further safety relevant data are available	

10. Stability and reactivity

Reactivity:	No information available.
Chemical stability:	Stable under normal conditions.
Conditions to avoid	Heat, flames and sparks. Sunlight.
Incompatible materials	Strong reducers and oxidizers
Possibility of Hazardous Reactions	None under normal processing
Hazardous decomposition products	Carbon oxides, Nitrogen oxides

11. Toxicological information

11.1. Information on toxicological effects

The toxicological effects of this product have not been thoroughly studied.

11.1.1. Acute Toxicity	No data available
Skin corrosion/irritation:	No data available
Serious eye damage/eye irritation:	No data available
Respiratory or skin sensitization/corrosion:	No data available
11.1.2. Mutagenicity:	Causes mutations in bacteria in vitro
Germ cell mutagenicity:	No data available
Carcinogenicity:	Group 3: Not classified as human carcinogen
Reproductive toxicity / Teratogenicity:	No data available
STOT-SE – single exposure (GHS):	No data available
STOT-SE – repeated exposure (GHS):	No data available
Aspiration hazard:	No data available
11.1.3. Potential Health Effects and Routes of Exposure	
If Inhaled	May be harmful if inhaled. May cause respiratory tract irritation.
If swallowed	May be harmful if swallowed
If on skin	May be harmful if absorbed through skin. May cause skin irritation.
If in Eyes	May cause eye irritation.

11.2. Additional information

RTECS number	N.A.
Comment:	Some other suppliers state the material causes skin irritation, serious eye irritation, may cause respiratory irritation. We could not find any supporting information.

12. Ecological Information

Eco-Toxicity	No further relevant information available
Other adverse effects	No further relevant information available.

