

Safety Data Sheet

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

Identification of the substance or mixture

Product code 15140122
Product name PENICILLIN STREPTOMYCIN SOL

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

Relevant identified uses
For research use only.

Uses advised against
No information available.

Company/undertaking identification

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

Within the USA + Canada: 1-800-424-9300 and
1-703-527-3887
Outside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

CHEMTREC Israel (Tel Aviv)	+(972)-37630639 (Greeting Language: Hebrew)
CHEMTREC Malaysia	1-800-815-308 (Toll Free) (Greeting Language: Malay)
CHEMTREC Malaysia (Kuala Lumpur)	+(60)-327884561 (Greeting Language: Malay)
CHEMTREC Philippines	1-800-1-116-1020 (Toll Free) (Greeting Language: Tagalog)
CHEMTREC Philippines (Manila)	+(63) 632-395-3308 (Greeting Language: Tagalog)
CHEMTREC Saudi Arabia	+(966)-8111095861 (Greeting Language: Arabic and English)
CHEMTREC Singapore	800-101-2201 (Toll Free) (Greeting Language: English and Mandarin)
CHEMTREC Singapore	+(65)-31581349 (Greeting Language: English and Mandarin)
CHEMTREC Australia (Sydney)	+(61)-290372994 (Greeting Language: English)
CHEMTREC New Zealand (Auckland)	+(64)-98010034 (Greeting Language: English)
CHEMTREC South Africa	0-800-983-611 (Greeting Language: English)
CHEMTREC Vietnam (Hanoi)	+(84)-444581771 (welcome Language: Vietnamese)

SECTION 2: Hazards identification

Australian SDS Statement

Obsolete, Do not use. Classified as hazardous according to criteria of Worksafe Australia. Hazardous Substance. Non-Dangerous Goods.

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GHS Classification

Health hazards

Respiratory sensitisation	Category 1
Skin sensitisation	Category 1
Reproductive Toxicity	Category 1A

Physical hazards

Not Hazardous

Environmental hazards

Not Hazardous

Label elements

Signal Word

DANGER

Hazard pictograms



Hazard Statements

H317 - May cause an allergic skin reaction

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H360 - May damage fertility or the unborn child

Precautionary Statements

Prevention

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P284 - In case of inadequate ventilation wear respiratory protection

P272 - Contaminated work clothing should not be allowed out of the workplace

Response

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Storage

Not Applicable

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards

Not Applicable

SECTION 3: Composition/information on ingredients

Component	CAS No	Common name	EINECS-No.	Weight-%
Streptomycin sulfate 3810-74-0 (0.5-1.5)	3810-74-0	-	223-286-0	0.5-1.5
Penicillin G Sodium Salt (0.5-1.5)	-	-	Not Listed	0.5-1.5

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

H317 - May cause an allergic skin reaction H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H360 - May damage fertility or the unborn child

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media
Unsuitable extinguishing media

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.
No information available.

Special hazards arising from the substance or mixture

None 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. Avoid discharge into drains and waterways whenever possible.

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.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	Australia STEL	Australia	Australia - Skin Absorbers	Australia - OES - Peak
Streptomycin sulfate 3810-74-0	None	None	None	None
Penicillin G Sodium Salt	None	None	None	None

Chemical Name	New Zealand - Workplace Exposure Limits	New Zealand TWA	New Zealand STEL	New Zealand Ceiling Limits
Streptomycin sulfate 3810-74-0	None	None	None	None
Penicillin G Sodium Salt	None	None	None	None

Chemical Name	China OEL (MAC)	China - Skin Absorbers	Hong Kong OEL
Streptomycin sulfate 3810-74-0	None	None	None
Penicillin G Sodium Salt	None	None	None

Chemical Name	Korea OEL (CEILING)	Korea OEL (TWA)	Korea OEL (STEL)
Streptomycin sulfate 3810-74-0	None	None	None

Penicillin G Sodium Salt	None	None	None
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Chemical Name	Korea OEL (Skin Notations)	Korea PEL (STELs)	Korea PEL (TWAs)
Streptomycin sulfate 3810-74-0	None	None	None
Penicillin G Sodium Salt	None	None	None

Chemical Name	Korea OEL (Carcinogens)	Korea OEL (Germ Cell Mutagenicity)	Korea OEL (Reproductive Toxicity)
Streptomycin sulfate 3810-74-0	None	None	None
Penicillin G Sodium Salt	None	None	None

Chemical Name	Taiwan OEL - TWA	Taiwan OEL (Skin notations, Carcinogens)	Taiwan OEL (STELs)	Taiwan OEL (Ceilings)
Streptomycin sulfate 3810-74-0	None	None	None	None
Penicillin G Sodium Salt	None	None	None	None

Chemical Name	Singapore OEL (PEL)	Singapore OEL (STEL)
Streptomycin sulfate 3810-74-0	None	None
Penicillin G Sodium Salt	None	None

Chemical Name	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Streptomycin sulfate 3810-74-0	None	None
Penicillin G Sodium Salt	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	
Odour Threshold	No data	
Molecular Weight	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	
Vapour density	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.

SECTION 10: Stability and reactivity

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
Streptomycin sulfate	= 430 mg/kg (Rat)	No data available	No data available
Penicillin G Sodium Salt	= 6916 mg/kg (Rat) > 2 g/kg (Mouse)	No data available	No data available

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	May cause sensitisation by inhalation and skin contact
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	May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility
Aspiration hazard	Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Streptomycin sulfate	No data available	No data available	No data available	No data available	No data available
Penicillin G Sodium Salt	No data available	No data available	No data available	No data available	No data available

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

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 accordance with 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

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)
Streptomycin sulfate	Listed	Listed	-	Listed
Penicillin G Sodium Salt	-	Listed	-	-

Chemical Name	ENCS (Japan)	IECSC - China Inventory of Existing Chemical Substances	South Korea (KECL)	AICS (Australia)
Streptomycin sulfate	-	Listed	Listed	Listed
Penicillin G Sodium Salt	-	Listed	Listed	Listed

Chemical Name	NZIoC - New Zealand Inventory of Chemicals	EINECS (European Union)	ELINCS (European List of Notified Chemical Substances)
Streptomycin sulfate	Listed	Listed	-
Penicillin G Sodium Salt	Listed	Listed	-

Korea

Occupational Safety and Health Act

Chemical Name	ISHA - Substances to be	ISHA - Substances to be	ISHA - Substances to be	ISHA - Substances to be
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	controlled - Metals	controlled - Organic Substances	controlled - Acids and bases	controlled - Gas-phase substances
Streptomycin sulfate	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Penicillin G Sodium Salt	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
Streptomycin sulfate	Not Applicable	Not Applicable	Not Applicable
Penicillin G Sodium Salt	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Organic compounds	Metals	Acids and alkalis	Gas-phase substances	Dusts
Streptomycin sulfate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Penicillin G Sodium Salt	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Organic compounds	Metals	Acids and alkalis	Gas-phase substances	Dusts
Streptomycin sulfate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Penicillin G Sodium Salt	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)
Streptomycin sulfate	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Penicillin G Sodium Salt	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)
Streptomycin sulfate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Penicillin G Sodium Salt	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
Streptomycin sulfate	Not Applicable	Not Applicable
Penicillin G Sodium Salt	Not Applicable	Not Applicable

Chemicals Control Act

Chemical Name	Toxic substance	Prohibited substance	Restricted substance
Streptomycin sulfate	Not Applicable	Not Applicable	Not Applicable
Penicillin G Sodium Salt	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Threshold Values (%)	Quantity limit for manufacture/use	Quantity limit for custody/storage
Streptomycin sulfate	Not Applicable	Not Applicable	Not Applicable
Penicillin G Sodium Salt	Not Applicable	Not Applicable	Not Applicable

Chemical Name	Pollutant Release and Transfer Registers (PRTR) - Group I	Pollutant Release and Transfer Registers (PRTR) - Group II
Streptomycin sulfate	Not Applicable	Not Applicable
Penicillin G Sodium Salt	Not Applicable	Not Applicable

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

Chemical Name	Ministry of Environment - CMR risk	Ministry of Environment - Critically Controlled Substance	Existing substances subject to registration	Existing substances not likely to be subject to registration	Existing substances known to be of very low risk
Streptomycin sulfate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Penicillin G Sodium Salt	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Safety Control of Dangerous Substances Act

Chemical Name	Safety Control of Dangerous Substances Act
Streptomycin sulfate	Not Applicable
Penicillin G Sodium Salt	Not Applicable

Wastes Control Act

Chemical Name	Wastes Control Act
Streptomycin sulfate	Not Applicable
Penicillin G Sodium Salt	Not Applicable

Singapore

Chemical Name	Singapore - Poisons List
Streptomycin sulfate	Not Listed
Penicillin G Sodium Salt	Present

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
Streptomycin sulfate	Not Listed	Not Listed	Not Listed
Penicillin G Sodium Salt	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
Streptomycin sulfate	Not Listed	Not Listed	Not Listed	Not Listed
Penicillin G Sodium Salt	Not Listed	Not Listed	Not Listed	Not Listed

SECTION 16: Other information

Reason for revision SDS sections updated.
Revision number 19
Revision date 22-Jul-2019

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>

"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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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. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet