



Microbial Luminescence System Ultra High Temperature Dairy Screen Kit

Kit Product

Kit identification

Trade name : Microbial Luminescence System Ultra High Temperature Dairy Screen Kit
Product code : 3000DPQCOG
Part Number(s) : 700002022|3000DPQCOG

Details of the supplier of the Kit safety information sheet

Manufacturer

Neogen Corporation
620 Leshler Place
Lansing Michigan 48912
United States of America
T 800.234.5333

sds@neogen.com - <https://www.neogen.com/>

Importer

Neogen Australasia Pty Ltd
ALLIOTT NZ LTD (CHARTERED ACCOUNTANTS) Level 2
142 Boradway
New Market
Auckland 1023
New Zealand
T 0800 449 129

naa@neogen.com - <https://www.neogen.com/>

General information

Restrictions on use : Do not use kit components from one kit with any other kit.
General description : This is a test kit that is comprised of several individual components, listed below, each of which may have its own Safety Data Sheet (SDS). Articles, and otherwise immobilized and inaccessible chemicals, do not have a Safety Data Sheet in this packet.

Kit contents

Name	GHS classification
Extractant	Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
LL1 Enzyme	Skin Sens. 1, H317
LL1 Buffer	Not classified
ATPase Enzyme	Not classified
ATPase Buffer	Not classified

Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
UN number		
Not regulated for transport		

Microbial Luminescence System Ultra High Temperature Dairy Screen Kit

Kit Safety Information Sheet (SIS)

IMDG	IATA	UNRTDG
UN Proper Shipping Name		
Not regulated	Not regulated	Not regulated
Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
Packing group		
Not regulated	Not regulated	Not regulated
Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

Special precautions for user

Transport by road and rail

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Transport in bulk according to IMO instruments

Not applicable

Hazchem or Emergency Action Code

Not applicable



Extractant

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Issue date: 8/09/2025 Revision date: 20/01/2026 Supersedes: 23/09/2025 Version: 3.0

SECTION 1: Identification

1.1 Product identifier

Product name : Extractant
Product form : Mixture
Type of product : Food Safety -- [Food Safety]
Product code : 400001103

1.2 Other means of identification

Part Number(s) : 400001103

1.3 Recommended use of the chemical and restrictions on use

Recommended use : Scientific research and development
Laboratory chemicals
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4 Details of manufacturer or importer

Supplier

Neogen Corporation
620 Leshler Place
Lansing Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

Importer

Neogen Australasia Pty Ltd
ALLIOTT NZ LTD (CHARTERED ACCOUNTANTS) Level 2
142 Boradway
New Market
Auckland 1023
New Zealand
T 0800 449 129
naa@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

Country/Area	Organisation	Emergency number
New Zealand	National Poisons Centre.	0800 764 766 (0800 POISON)

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Serious eye damage/eye irritation, Category 2 H319
Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

Hazard pictograms (GHS NZ) :



Signal word (GHS NZ) : Warning
Contains : Chlorhexidine Digluconate 20% Solution (< 100 %); Deviron® 13-S9 (> 1.516 %); 1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)-, monosodium salt (< 100 %)

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Hazard statements (GHS NZ)	: H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H412 - Harmful to aquatic life with long lasting effects
Prevention	: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Response	: P302+P352 - IF ON SKIN: Wash with plenty of water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P321 - Specific treatment (see supplemental first aid instruction on this label). P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse.
Disposal	: P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GHS NZ
Chlorhexidine Digluconate 20% Solution	CAS-No.: 18472-51-0	< 100	Aquatic Chronic 2, H411
Deviron® 13-S9	CAS-No.: 68131-40-8	> 1.516	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)-, monosodium salt	CAS-No.: 75277-39-3	< 100	Skin Sens. 1, H317

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
Self protection of the first-aider	: First-aiders should pay attention to their own protection and use the recommended personal protective equipment (see section 8).

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

Extractant

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

4.3. Medical attention and special treatment

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.
General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.
Absorb spillage to prevent material damage.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.
Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up : Take up liquid spill into absorbent material.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Keep cool. Protect from sunlight.
Storage temperature	: 2 – 8 °C
Packaging materials	: Always store product in container of same material as original container.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment	: Wear recommended personal protective equipment.
Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Colour	: Colourless
Odour	: Odourless
Odour threshold	: No additional information available
pH	: No additional information available
Evaporation rate	: No additional information available
Melting point / Freezing point	: Melting point: Not applicable
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Flammability	: Non flammable
Vapour pressure	: No additional information available
Relative density	: No additional information available
Density	: No additional information available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Explosive limits	: No additional information available
Minimum ignition energy	: No data available

Extractant

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Toxicity

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Extractant	
Unknown acute toxicity (GHS NZ)Unknown acute toxicity (GHS NZ)	1.91% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 98.75% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 98.75% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Chlorhexidine Digluconate 20% Solution (18472-51-0)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: other:

1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)-, monosodium salt (75277-39-3)

LD50 oral rat	> 2000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg

Deviron® 13-S9 (68131-40-8)

LD50 oral rat	2380 mg/kg Source: National Library of Medicine
LD50 dermal rat	> 2000 mg/kg Source: ECHA

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)-, monosodium salt (75277-39-3)

Viscosity, kinematic	Not applicable (solid)
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SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified

Extractant

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.
Soil toxicity	: Not classified
Terrestrial vertebrate toxicity	: Not classified
Terrestrial invertebrate toxicity	: Not classified

Chlorhexidine Digluconate 20% Solution (18472-51-0)	
LC50 - Fish [1]	2.08 mg/kg
EC50 - Crustacea [1]	87 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	81 mg/l
BCF - Fish [1]	42 mg/l
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	> 3.9
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: other:
LD50 dermal rat	> 2000 mg/kg
LD50 oral rat	> 2000 mg/kg

1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)-, monosodium salt (75277-39-3)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Crustacea [1]	> 0.1 g/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 - Crustacea [2]	> 0.1 g/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
ErC50 algae	> 100 mg/l
Partition coefficient n-octanol/water (Log Pow)	< -3.88 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
LD50 dermal rat	> 2000 mg/kg
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male / female, Experimental value, Oral, 14 day(s))

Deviron® 13-S9 (68131-40-8)	
LC50 - Fish [1]	3 mg/l Source: The ECOTOXicology database
NOEC (chronic)	0.2 mg/l Test organisms (species): Duration: '21 d'
Partition coefficient n-octanol/water (Log Pow)	2.83 Source: Quantitative Structure Activity Relation
LD50 dermal rat	> 2000 mg/kg Source: ECHA
LD50 oral rat	2380 mg/kg Source: National Library of Medicine

12.2. Persistence and degradability

Extractant	
Persistence and degradability	Not rapidly degradable
Chlorhexidine Digluconate 20% Solution (18472-51-0)	
Persistence and degradability	Not readily biodegradable.
1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)-, monosodium salt (75277-39-3)	
Persistence and degradability	Not readily biodegradable in water.
Deviron® 13-S9 (68131-40-8)	
Persistence and degradability	Not rapidly degradable

Extractant

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

12.3. Bioaccumulative potential

Extractant	
Bioaccumulative potential	No additional information available
Chlorhexidine Digluconate 20% Solution (18472-51-0)	
BCF - Fish [1]	42 mg/l
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	> 3.9
Bioaccumulative potential	Not determined.
1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)-, monosodium salt (75277-39-3)	
Partition coefficient n-octanol/water (Log Pow)	< -3.88 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Bioaccumulative potential	Not bioaccumulative.
Deviron® 13-S9 (68131-40-8)	
Partition coefficient n-octanol/water (Log Pow)	2.83 Source: Quantitative Structure Activity Relation

12.4. Mobility in soil

Extractant	
Mobility in soil	No additional information available
Chlorhexidine Digluconate 20% Solution (18472-51-0)	
Mobility in soil	No information available about this product.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	> 3.9
1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)-, monosodium salt (75277-39-3)	
Surface tension	63 mN/m (20 °C, Experimental value, 1.001 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Partition coefficient n-octanol/water (Log Pow)	< -3.88 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Ecology - soil	No (test)data on mobility of the substance available.
Deviron® 13-S9 (68131-40-8)	
Partition coefficient n-octanol/water (Log Pow)	2.83 Source: Quantitative Structure Activity Relation

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

SECTION 13: Disposal considerations

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Ecological waste information	: The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself.
Additional information	: Do not re-use empty containers.

Extractant

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not regulated for transport		
14.2. UN Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

Transport by road and rail

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

14.7. Transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Deviron® 13-S9 (68131-40-8)	
Hazardous Substances and New Organisms Act	
HSNO Approval Number	HSR003422

15.2. Chemical safety assessment

Australian Inventory of Industrial Chemicals (AICIS)	All substances are listed
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SECTION 16: Other information

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Supersedes : 23/09/2025

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Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Full text of H-statements	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), New Zealand

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1 Product identifier

Product name : LL1 Enzyme
 Product form : Mixture
 Type of product : Food Safety -- [Food Safety]
 Product code : 400001093

1.2 Other means of identification

Part Number(s) : 400001093

1.3 Recommended use of the chemical and restrictions on use

Recommended use : Laboratory chemicals
 Scientific research and development
 Restrictions on use : Do not use kit components from one kit with any other kit.

1.4 Details of manufacturer or importer

Manufacturer

Neogen Corporation
 620 Leshler Place
 Lansing Michigan 48912
 United States of America
 T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

Importer

Neogen Australasia Pty Ltd
 ALLIOTT NZ LTD (CHARTERED ACCOUNTANTS) Level 2
 142 Boradway
 New Market
 Auckland 1023
 New Zealand
 T 0800 449 129
naa@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
 Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
 Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

Country/Area	Organisation	Emergency number
New Zealand	National Poisons Centre.	0800 764 766 (0800 POISON)

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Skin sensitisation, Category 1 H317

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

Hazard pictograms (GHS NZ) :



Signal word (GHS NZ) : Warning
 Contains : 1,4-dithiothreitol (< 100 %)
 Hazard statements (GHS NZ) : H317 - May cause an allergic skin reaction
 Prevention : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
 P272 - Contaminated work clothing should not be allowed out of the workplace.

LL1 Enzyme

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according to the Hazardous Substance SDS Notice 2017 (EPA)

Response	: P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. : P302+P352 - IF ON SKIN: Wash with plenty of water. : P321 - Specific treatment (see supplemental first aid instruction on this label). : P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. : P362+P364 - Take off contaminated clothing and wash it before reuse.
Disposal	: P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GHS NZ
1,4-dithiothreitol	CAS-No.: 3483-12-3	< 100	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 2, H411 Hazardous to terrestrial vertebrates

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
Self protection of the first-aiders	: First aid workers will be equipped with suitable personal protective equipment.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	: None under normal conditions. Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions. Dust from this product may cause eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Medical attention and special treatment

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

LL1 Enzyme

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

For containment	: Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up	: Mechanically recover the product.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures	: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Keep cool. Protect from sunlight.
Storage temperature	: 2 – 8 °C
Packaging materials	: Always store product in container of same material as original container.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

LL1 Enzyme

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment : Wear recommended personal protective equipment.
Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state : Solid
Appearance : Pellet.
Colour : Light green
Odour : Odourless
Odour threshold : No additional information available
pH : No additional information available
Evaporation rate : No additional information available
Melting point / Freezing point : Freezing point: Not applicable
Boiling point : No data available
Flash point : Not applicable
Auto-ignition temperature : Not applicable
Flammability : Non flammable
Vapour pressure : No additional information available
Relative density : No additional information available
Density : No additional information available
Solubility : Soluble in water.
Partition coefficient n-octanol/water (Log Pow) : No data available
Viscosity, kinematic : Not applicable
Viscosity, dynamic : No data available
Explosive properties : No data available
Explosive limits : Not applicable
Minimum ignition energy : No data available

SECTION 10: Stability and reactivity

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No dangerous reactions known under normal conditions of use.
Conditions to avoid : None under recommended storage and handling conditions (see section 7).
Incompatible materials : No additional information available
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

LL1 Enzyme

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

SECTION 11: Toxicological information

11.1. Toxicity

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

LL1 Enzyme	
Unknown acute toxicity (GHS NZ)Unknown acute toxicity (GHS NZ)	17.49% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 98.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 98.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

1,4-dithiothreitol (3483-12-3)	
LD50 oral rat	400 mg/kg (Rat, Oral)

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

1,4-dithiothreitol (3483-12-3)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

LL1 Enzyme	
Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified.
Soil toxicity	: Not classified
Terrestrial vertebrate toxicity	: Not classified
Terrestrial invertebrate toxicity	: Not classified

1,4-dithiothreitol (3483-12-3)	
EC50 - Crustacea [1]	34.8 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	24.3 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	8.66 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
LD50 oral rat	400 mg/kg (Rat, Oral)

12.2. Persistence and degradability

LL1 Enzyme	
Persistence and degradability	Not rapidly degradable

LL1 Enzyme

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

1,4-dithiothreitol (3483-12-3)

Persistence and degradability	Biodegradability in water: no data available.
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12.3. Bioaccumulative potential

LL1 Enzyme

Bioaccumulative potential	No additional information available
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1,4-dithiothreitol (3483-12-3)

Bioaccumulative potential	No bioaccumulation data available.
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12.4. Mobility in soil

LL1 Enzyme

Mobility in soil	No additional information available
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12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not regulated for transport		
14.2. UN Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

Transport by road and rail
Not regulated

Transport by sea
Not regulated

LL1 Enzyme

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Air transport

Not regulated

14.7. Transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

1,4-dithiothreitol (3483-12-3)

Hazardous Substances and New Organisms Act

HSNO Approval Number	HSR005050
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15.2. Chemical safety assessment

Australian Inventory of Industrial Chemicals (AICIS)	All substances are listed
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SECTION 16: Other information

Issue date	: 9/09/2025
Revision date	: 20/01/2026
Supersedes	: 22/09/2025

Full text of H-statements

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H411	Toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), New Zealand

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



LL1 Buffer

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)
Issue date: 9/09/2025 Revision date: 20/01/2026 Supersedes: 23/09/2025 Version: 3.0

SECTION 1: Identification

1.1 Product identifier

Product name : LL1 Buffer
Product form : Mixture
Type of product : Food Safety -- [Food Safety]
Product code : 400001067

1.2 Other means of identification

Part Number(s) : 400001067

1.3 Recommended use of the chemical and restrictions on use

Recommended use : Scientific research and development
Laboratory chemicals
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4 Details of manufacturer or importer

Manufacturer

Neogen Corporation
620 Leshler Place
Lansing Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

Importer

Neogen Australasia Pty Ltd
ALLIOTT NZ LTD (CHARTERED ACCOUNTANTS) Level 2
142 Boradway
New Market
Auckland 1023
New Zealand
T 0800 449 129
naa@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

Country/Area	Organisation	Emergency number
New Zealand	National Poisons Centre.	0800 764 766 (0800 POISON)

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Not classified

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

LL1 Buffer

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the applicable regulations

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
Self protection of the first-aider	: First aid workers will be equipped with suitable personal protective equipment.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Medical attention and special treatment

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.

LL1 Buffer

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

- For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
- Methods for cleaning up : Take up liquid spill into absorbent material.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Keep cool. Protect from sunlight.
- Storage temperature : 2 – 8 °C
- Packaging materials : Always store product in container of same material as original container.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

- Personal protective equipment : Wear recommended personal protective equipment.
- Hand protection : Protective gloves
- Eye protection : Safety glasses
- Skin and body protection : Wear suitable protective clothing
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



- Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

- Physical state : Liquid
- Appearance : No data available
- Colour : Colourless
- Odour : Odourless

LL1 Buffer

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Odour threshold	: No additional information available
pH	: No additional information available
Evaporation rate	: No additional information available
Melting point / Freezing point	: Melting point: Not applicable
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Flammability	: Non flammable
Vapour pressure	: No additional information available
Relative density	: No additional information available
Density	: No additional information available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Explosive limits	: No additional information available
Minimum ignition energy	: No data available

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Toxicity

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

LL1 Buffer	
Unknown acute toxicity (GHS NZ)Unknown acute toxicity (GHS NZ)	99.39% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 99.39% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified.

LL1 Buffer

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Hazardous to the aquatic environment, long-term (chronic) : Not classified.
Soil toxicity : Not classified
Terrestrial vertebrate toxicity : Not classified
Terrestrial invertebrate toxicity : Not classified

12.2. Persistence and degradability

LL1 Buffer

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

LL1 Buffer

Bioaccumulative potential	No additional information available
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12.4. Mobility in soil

LL1 Buffer

Mobility in soil	No additional information available
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12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not regulated for transport		
14.2. UN Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

Transport by road and rail
Not regulated

LL1 Buffer

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

Transport by sea

Not regulated

Air transport

Not regulated

14.7. Transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Issue date	: 9/09/2025
Revision date	: 20/01/2026
Supersedes	: 23/09/2025

Safety Data Sheet (SDS), New Zealand

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1 Product identifier

Product name : ATPase Enzyme
Product form : Mixture
Type of product : Food Safety -- [Food Safety]
Product code : 400001074

1.2 Other means of identification

Part Number(s) : 400001074

1.3 Recommended use of the chemical and restrictions on use

Recommended use : Laboratory chemicals
Scientific research and development
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4 Details of manufacturer or importer

Manufacturer

Neogen Corporation
620 Leshler Place
Lansing Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

Importer

Neogen Australasia Pty Ltd
ALLIOTT NZ LTD (CHARTERED ACCOUNTANTS) Level 2
142 Boradway
New Market
Auckland 1023
New Zealand
T 0800 449 129
naa@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

Country/Area	Organisation	Emergency number
New Zealand	National Poisons Centre.	0800 764 766 (0800 POISON)

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Not classified

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

ATPase Enzyme

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the applicable regulations

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
Self protection of the first-aider	: First aid workers will be equipped with suitable personal protective equipment.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	: None under normal conditions. Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure.
Symptoms/effects after skin contact	: None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.
Symptoms/effects after eye contact	: None under normal conditions. Dust from this product may cause eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Medical attention and special treatment

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area.

ATPase Enzyme

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

- For containment : Using a clean shovel, put the material in a dry container and cover without compressing it.
- Methods for cleaning up : Mechanically recover the product.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Do not freeze.
- Storage temperature : 2 – 8 °C
- Packaging materials : Always store product in container of same material as original container.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

- Personal protective equipment : Wear recommended personal protective equipment.
- Hand protection : Protective gloves
- Eye protection : Safety glasses
- Skin and body protection : Wear suitable protective clothing
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



- Environmental exposure controls : Avoid release to the environment.

ATPase Enzyme

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

SECTION 9: Physical and chemical properties

Physical state	: Solid
Appearance	: Pellet.
Colour	: White
Odour	: Odourless
Odour threshold	: No additional information available
pH	: No additional information available
Evaporation rate	: No additional information available
Melting point / Freezing point	: Freezing point: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Flammability	: Non flammable
Vapour pressure	: No additional information available
Relative density	: No additional information available
Density	: No additional information available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Explosive limits	: Not applicable
Minimum ignition energy	: No data available

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Toxicity

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

ATPase Enzyme	
Unknown acute toxicity (GHS NZ)Unknown acute toxicity (GHS NZ)	2.99% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 97.65% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 98.95% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

ATPase Enzyme	
Viscosity, kinematic	Not applicable

ATPase Enzyme

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
Soil toxicity	: Not classified
Terrestrial vertebrate toxicity	: Not classified
Terrestrial invertebrate toxicity	: Not classified

12.2. Persistence and degradability

ATPase Enzyme

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

ATPase Enzyme

Bioaccumulative potential	No additional information available
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12.4. Mobility in soil

ATPase Enzyme

Mobility in soil	No additional information available
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12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

SECTION 13: Disposal considerations

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not regulated for transport		
14.2. UN Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated

ATPase Enzyme

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)

IMDG	IATA	UNRTDG
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

Transport by road and rail

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

14.7. Transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Issue date : 23/09/2025
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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1 Product identifier

Product name : ATPase Buffer
Product form : Mixture
Product code : 400001147

1.2 Other means of identification

Part Number(s) : 400001147

1.3 Recommended use of the chemical and restrictions on use

Recommended use : Scientific research and development
Laboratory chemicals
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4 Details of manufacturer or importer

Manufacturer

Neogen Corporation
620 Leshler Place
Lansing Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

Importer

Neogen Australasia Pty Ltd
ALLIOTT NZ LTD (CHARTERED ACCOUNTANTS) Level 2
142 Boradway
New Market
Auckland 1023
New Zealand
T 0800 449 129
naa@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

Country/Area	Organisation	Emergency number
New Zealand	National Poisons Centre.	0800 764 766 (0800 POISON)

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Not classified

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

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according to the Hazardous Substance SDS Notice 2017 (EPA)

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the applicable regulations

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
Self protection of the first-aiders	: First aid workers will be equipped with suitable personal protective equipment.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Medical attention and special treatment

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.

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according to the Hazardous Substance SDS Notice 2017 (EPA)

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

- For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
- Methods for cleaning up : Take up liquid spill into absorbent material.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Keep cool. Protect from sunlight.
- Packaging materials : Always store product in container of same material as original container.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

- Personal protective equipment : Wear recommended personal protective equipment.
- Hand protection : Protective gloves
- Eye protection : Safety glasses
- Skin and body protection : Wear suitable protective clothing
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



- Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

- Physical state : Liquid
- Appearance : Liquid.
- Colour : Colourless
- Odour : Odourless
- Odour threshold : No additional information available

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pH	: No additional information available
Evaporation rate	: No additional information available
Melting point / Freezing point	: Melting point: Not applicable
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Flammability	: Non flammable
Vapour pressure	: No additional information available
Relative density	: No additional information available
Density	: No additional information available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Explosive limits	: No additional information available
Minimum ignition energy	: No data available

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Toxicity

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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Unknown acute toxicity (GHS NZ)Unknown acute toxicity (GHS NZ)	98.98% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 98.98% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified.

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according to the Hazardous Substance SDS Notice 2017 (EPA)

Soil toxicity : Not classified
Terrestrial vertebrate toxicity : Not classified
Terrestrial invertebrate toxicity : Not classified

12.2. Persistence and degradability

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Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No additional information available
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12.4. Mobility in soil

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Mobility in soil	No additional information available
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12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not regulated for transport		
14.2. UN Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

Transport by road and rail
Not regulated

Transport by sea
Not regulated

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according to the Hazardous Substance SDS Notice 2017 (EPA)

Air transport

Not regulated

14.7. Transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

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