

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form : Mixture
Trade name : Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth
Product code : NCM0126

1.2. Other means of identification

Part Number(s) : 700004511|NCM0126A|700004512|NCM0126B|700004513|NCM0126C|700004514|NCM0126D|NCM0126

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Scientific research and development
Laboratory chemicals

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
14 Hume Drive
Bundamba Queensland 4304
Australia
T 07 3736 2134

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/Company	Address	Emergency number	Comment
Australia	NSW Poisons Information Centre The Children's Hospital at Westmead	Locked Bag 4001 NSW 2145 Westmead	13 11 26	

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Acute toxicity (oral), Category 5 H303
Acute toxicity (dermal), Category 5 H313
Acute toxicity (inhalation:dust,mist) Category 4 H332

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU) :



Exclamation mark

Signal word (GHS AU) :

Warning

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Contains	: Calcium carbonate ($\geq 25 - < 50$ %); Sodium thiosulfate, anhydrous ($\geq 25 - < 50$ %); Peptones, casein ($\geq 5 - < 10$ %); Sodium chloride ($\geq 1 - < 5$ %); Peptones, beef ($\geq 1 - < 5$ %)
Hazard statements (GHS AU)	: H303+H313 - May be harmful if swallowed or in contact with skin H332 - Harmful if inhaled
Precautionary statements (GHS AU)	: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P271 - Use only outdoors or in a well-ventilated area. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 - Call a POISON CENTER or doctor if you feel unwell.
Unknown acute toxicity (GHS AU)	: 39.39% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 22.67% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 22.67% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
Calcium carbonate	471-34-1	$\geq 25 - < 50$	Acute Tox. 5 (Oral), H303 Acute Tox. 5 (Dermal), H313 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr./Irrit. Not classified
Sodium thiosulfate, anhydrous	7772-98-7	$\geq 25 - < 50$	Acute Tox. 5 (Dermal), H313 Acute Tox. 4 (Inhalation:dust,mist), H332
Other substances (not contributing to the classification of this product)	-	0 – 50	-

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth. 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	: Harmful if inhaled.
Symptoms/effects after skin contact	: May be harmful in contact with skin.
Symptoms/effects after eye contact	: None under normal conditions. Dust from this product may cause eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed.

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.
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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.

6.1.1. For non-emergency personnel

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

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 : Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment.
Hygiene measures : 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 – 30 °C
Packaging materials : Store always product in container of same material as original container.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

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Calcium carbonate (471-34-1)	
Australia - Occupational Exposure Limits	
Local name	Calcium carbonate (Limestone; Marble; Whiting)
OES TWA	10 mg/m ³
Remark (AU)	(a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
Regulatory reference	Workplace exposure standards for airborne contaminants (2024)

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 inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s)



Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state : Solid
Appearance : Powder.
Colour : Beige
Odour : Characteristic
Odour threshold : No data available
pH : 7.8 – 8.2
pH solution : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point / Freezing point : Freezing point: Not applicable
Boiling point : No data available
Flash point : Not applicable
Auto-ignition temperature : Not applicable
Flammability : No data available
Vapour pressure : No data available
Relative density : No data available
Density : No data available
Solubility : Soluble in water.
Partition coefficient n-octanol/water (Log Pow) : No data available
Viscosity, kinematic : Not applicable
Explosive properties : No data available
Explosive limits : Not applicable
Minimum ignition energy : No data available
Fat solubility : No data available

SECTION 10: Stability and reactivity

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

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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

Acute toxicity (oral)	: May be harmful if swallowed.
Acute toxicity (dermal)	: May be harmful in contact with skin.
Acute toxicity (inhalation)	: Inhalation:dust,mist: Harmful if inhaled.

Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth	
ATE AU (oral)	2500.462 mg/kg bodyweight
ATE AU (dermal)	2500.362 mg/kg bodyweight
ATE AU (dust,mist)	1.5 mg/l/4h

Calcium carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 3 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s))
LC50 Inhalation - Rat (Dust/Mist)	> 3 mg/l Source: ECHA

Sodium thiosulfate, anhydrous (7772-98-7)	
LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 2.6 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Read-across, Inhalation (aerosol), 14 day(s))

Unknown acute toxicity (GHS AU)	: 39.39% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 22.67% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 22.67% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
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Skin corrosion/irritation	: Not classified. pH: 7.8 – 8.2
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Serious eye damage/irritation	: Not classified pH: 7.8 – 8.2
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Respiratory or skin sensitization	: Not classified
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Germ cell mutagenicity	: Not classified
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Carcinogenicity	: Not classified
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Reproductive toxicity	: Not classified
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STOT-single exposure	: Not classified
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STOT-repeated exposure	: Not classified
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Calcium carbonate (471-34-1)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	≥ 0.212 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard	: Not classified
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Viscosity, kinematic	Not applicable
Calcium carbonate (471-34-1)	
Viscosity, kinematic	Not applicable (solid)

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

Calcium carbonate (471-34-1)	
LC50 - Fish [1]	> 100 % (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 100 % (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LD50 oral rat	> 2000 mg/kg (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))

Sodium thiosulfate, anhydrous (7772-98-7)	
LC50 - Fish [1]	510 mg/l (96 h, Lepomis macrochirus, Static system, Fresh water, Read-across, Lethal)
EC50 - Crustacea [1]	230 mg/l (48 h, Daphnia magna, Static system, Fresh water, Read-across, Locomotor effect)
NOEC (chronic)	> 10 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 316 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '34 d'
Partition coefficient n-octanol/water (Log Pow)	-4.35 Source: International Chemical Safety Cards
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral, 14 day(s))

12.2. Persistence and degradability

Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth	
Persistence and degradability	Not rapidly degradable
Calcium carbonate (471-34-1)	
Persistence and degradability	Biodegradability in soil: not applicable, Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

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Sodium thiosulfate, anhydrous (7772-98-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Calcium carbonate (471-34-1)	
Bioaccumulative potential	Not bioaccumulative.

Sodium thiosulfate, anhydrous (7772-98-7)	
Partition coefficient n-octanol/water (Log Pow)	-4.35 Source: International Chemical Safety Cards
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

Calcium carbonate (471-34-1)	
Mobility in soil	4.971 Source: Quantitative Structure Activity Relation
Surface tension	No data available (test not performed)
Ecology - soil	Low potential for adsorption in soil.

Sodium thiosulfate, anhydrous (7772-98-7)	
Partition coefficient n-octanol/water (Log Pow)	-4.35 Source: International Chemical Safety Cards

12.5. Other adverse effects

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

Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth	
Fluorinated greenhouse gases	False

Calcium carbonate (471-34-1)	
Fluorinated greenhouse gases	False

Sodium thiosulfate, anhydrous (7772-98-7)	
Fluorinated greenhouse gases	False

SECTION 13: Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
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 ADG / IMDG / IATA

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ADG	IMDG	IATA
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

14.6. Special precautions for user

Specific storage requirement : No data available
Shock sensitivity : No data available

14.7. Additional information

Other information : No supplementary information available

Transport by road and rail

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

14.8. Hazchem or Emergency Action Code

Hazchem Code : Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS Inventory) status : Contains substance(s) listed on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

No additional information available

Australian Pesticides and Veterinary Medicines Authority (APVMA)

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

Revision date : 10/10/2025

Classification	
Acute Tox. 5 (Oral)	H303

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Classification	
Acute Tox. 5 (Dermal)	H313
Acute Tox. 4 (Inhalation:dust,mist)	H332

Full text of H-statements	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 5 (Dermal)	Acute toxicity (dermal), Category 5
Acute Tox. 5 (Oral)	Acute toxicity (oral), Category 5
Skin Corr./Irrit. Not classified	Skin corrosion/irritation Not classified
H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H332	Harmful if inhaled

Safety Data Sheet (SDS), Australia

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.