

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

1.1. Product identifier

Product form	: Mixture
Trade name	: Campylobacter Enrichment Broth (Bolton Broth)
Product code	: NCM0094
Type of product	: Food Safety -- [Food Safety]
Part Number(s)	: NCM0094 400000800 700003230 NCM0094A 700003231 NCM0094B 700003234 NCM0094K1

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

1.2.1. Relevant identified uses

Use of the substance/mixture	: Laboratory chemicals Scientific research and development
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1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

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

1.4. Emergency telephone 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)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to GB CLP (SI 2019:720 as amended)

Serious eye damage/eye irritation, Category 2 H319
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to GB CLP (SI 2019:720 as amended)

Hazard pictograms (GHS UK)



GHS07

Signal word (GHS UK)	: Warning
Hazard statements (GHS UK)	: H319 - Causes serious eye irritation.
Precautionary statements (GHS UK)	: P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear protective gloves, protective clothing, eye protection, face protection and hearing protection. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

Campylobacter Enrichment Broth (Bolton Broth)

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice or attention.

2.3. Other hazards

Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of UK REACH regulation, in accordance with Annex XIII	Sodium carbonate (497-19-8), Sodium pyruvate (113-24-6), Sodium metabisulfite (7681-57-4)
Substance(s) not meeting the vPvB criteria of UK REACH regulation, in accordance with Annex XIII	Sodium carbonate (497-19-8), Sodium pyruvate (113-24-6), Sodium metabisulfite (7681-57-4)

Results of Endocrine Disruptor assessment

Component	
Substance(s) not considered as endocrine disrupting. They are not included in the list established in accordance with Article 59(1) of UK REACH for having endocrine disrupting properties, nor identified as having endocrine disrupting properties in accordance with the criteria set out in GB BPR and GB PPP	Sodium carbonate(497-19-8), Sodium pyruvate(113-24-6), Sodium metabisulfite(7681-57-4)

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GB CLP (SI 2019:720 as amended)
Sodium carbonate	CAS-No.: 497-19-8 EC-No.: 207-838-8	1 – 5	Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=1.2 mg/l/4h) Eye Irrit. 2, H319
Sodium pyruvate	CAS-No.: 113-24-6 EC-No.: 204-024-4	1 – 5	Aquatic Chronic 2, H411
Sodium metabisulfite substance with workplace exposure limit(s)	CAS-No.: 7681-57-4 EC-No.: 231-673-0	1 – 5	Acute Tox. 4 (Oral), H302 (ATE=1540 mg/kg bodyweight) Eye Dam. 1, H318 Aquatic Chronic 3, H412

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

No additional information available

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

No additional information available

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

No additional information available

Campylobacter Enrichment Broth (Bolton Broth)

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

SECTION 5: Firefighting measures

5.1. Extinguishing media

No additional information available

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

No additional information available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

No additional information available

7.2. Conditions for safe storage, including any incompatibilities

Storage temperature : 2 – 30 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Sodium metabisulfite (7681-57-4)	
United Kingdom - Occupational Exposure Limits	
Local name	Disodium disulphite
WEL TWA (OEL TWA)	5 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

Campylobacter Enrichment Broth (Bolton Broth)

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

No additional information available

8.2.2.2. Skin protection

No additional information available

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Colour	: Beige.
Odour	: Characteristic.
Odour threshold	: Not available
pH	: 7.2 – 7.6
pH solution	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flash point	: Not applicable
Flammability	: Not available
Explosive limits	: Not applicable
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Relative vapour density at 20°C	: Not applicable
Relative density	: Not available
Density	: Not available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
Viscosity, kinematic	: Not applicable
Explosive properties	: Not available

Campylobacter Enrichment Broth (Bolton Broth)

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Sodium carbonate (497-19-8)	
LD50 oral rat	2800 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	2800 mg/kg
LD50 dermal rabbit	> 2000 mg/kg (16 CFR 1500.40, 24 h, Rabbit, Experimental value, Dermal, 14 day(s))
LD50 dermal	2500 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1.2 mg/l/4h
Sodium pyruvate (113-24-6)	
LD50 oral	3533 mg/kg bodyweight (Mouse, Experimental value, Oral)
LD50 dermal rat	> 3000 mg/kg bodyweight (Rat, Male, Experimental value, Intraperitoneal)
Sodium metabisulfite (7681-57-4)	
LD50 oral rat	1540 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	1540 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Read-across, Dermal, 14 day(s))
LD50 dermal	2500 mg/kg

Campylobacter Enrichment Broth (Bolton Broth)

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Sodium metabisulfite (7681-57-4)	
LC50 Inhalation - Rat	> 5.5 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Read-across, Inhalation (dust), 14 day(s))
LC50 Inhalation - Rat (Dust/Mist)	> 5.5 mg/l Source: ECHA
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7.2 – 7.6

Sodium pyruvate (113-24-6)	
pH	7 (10 %)

Sodium metabisulfite (7681-57-4)	
pH	4.5 (25 %)
Serious eye damage/irritation	: Causes serious eye irritation. pH: 7.2 – 7.6

Sodium pyruvate (113-24-6)	
pH	7 (10 %)

Sodium metabisulfite (7681-57-4)	
pH	4.5 (25 %)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

Sodium carbonate (497-19-8)	
Viscosity, kinematic	Not applicable (solid)

Sodium pyruvate (113-24-6)	
Viscosity, kinematic	Not applicable (solid)

Sodium metabisulfite (7681-57-4)	
Viscosity, kinematic	Not applicable (solid)

Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

Sodium carbonate (497-19-8)	
LC50 - Fish [1]	300 mg/l (96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	200 – 227 mg/l (48 h, Ceriodaphnia sp., Semi-static system, Fresh water, Experimental value, Locomotor effect)

Campylobacter Enrichment Broth (Bolton Broth)

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Sodium carbonate (497-19-8)	
EC50 - Crustacea [2]	200 – 227 mg/l Test organisms (species): Ceriodaphnia sp.
EC50 96h - Algae [1]	242 mg/l Source: ECOTOX
Sodium pyruvate (113-24-6)	
LC50 - Fish [1]	> 100 mg/l (96 h, Pisces, QSAR, Nominal concentration)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	2.78 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	94800000 mg/l Source: ECOSAR
ErC50 algae	> 3 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC (chronic)	3.95 mg/l Test organisms (species): Duration: '28 d'
Sodium metabisulfite (7681-57-4)	
LC50 - Fish [1]	316 mg/l (DIN 38412-15, 96 h, Leuciscus idus, Static system, Fresh water, Read-across, Nominal concentration)
EC50 72h - Algae [1]	43.8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
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'

12.2. Persistence and degradability

Campylobacter Enrichment Broth (Bolton Broth)	
Persistence and degradability	Not rapidly degradable
Sodium carbonate (497-19-8)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Sodium pyruvate (113-24-6)	
Persistence and degradability	Readily biodegradable in water.
Sodium metabisulfite (7681-57-4)	
Persistence and degradability	Biodegradability in water: no data available.
Chemical oxygen demand (COD)	0.15 g O ₂ /g substance

12.3. Bioaccumulative potential

Sodium carbonate (497-19-8)	
Partition coefficient n-octanol/water (Log Pow)	-6.19 Source: Quantitative Structure Activity Relation
Bioaccumulative potential	Not bioaccumulative.
Sodium pyruvate (113-24-6)	
Partition coefficient n-octanol/water (Log Pow)	-3.8 (Practical experience/observation, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)

Campylobacter Enrichment Broth (Bolton Broth)

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Sodium pyruvate (113-24-6)	
Bioaccumulative potential	Not bioaccumulative.
Sodium metabisulfite (7681-57-4)	
Partition coefficient n-octanol/water (Log Pow)	-3.7 Source: ICSC
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

Sodium carbonate (497-19-8)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for adsorption in soil.
Sodium pyruvate (113-24-6)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.
Sodium metabisulfite (7681-57-4)	
Surface tension	70.7 mN/m (20 °C, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Results of PBT and vPvB assessment

Component	
Sodium carbonate (497-19-8)	This substance does not meet the PBT criteria of UK REACH regulation, annex XIII This substance does not meet the vPvB criteria of UK REACH regulation, annex XIII
Sodium pyruvate (113-24-6)	This substance does not meet the PBT criteria of UK REACH regulation, annex XIII This substance does not meet the vPvB criteria of UK REACH regulation, annex XIII
Sodium metabisulfite (7681-57-4)	This substance does not meet the PBT criteria of UK REACH regulation, annex XIII This substance does not meet the vPvB criteria of UK REACH regulation, annex XIII

12.6. Other adverse effects

Ozone : Not classified (Based on available data, the classification criteria are not met)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

HP Code : HP12 - "Release of an acute toxic gas:" waste which releases acute toxic gases (Acute Tox. 1, 2 or 3) in contact with water or an acid

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not regulated	Not regulated	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not regulated	Not regulated	Not applicable	Not applicable

Campylobacter Enrichment Broth (Bolton Broth)

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

ADR	IMDG	IATA	ADN	RID
Transport document description				
Not applicable	Not regulated	Not regulated	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not regulated	Not regulated	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not regulated	Not regulated	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not regulated	Not regulated	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. National regulations

UK REACH Annex XVII (Restriction List)

This product contains no substance(s) listed on UK REACH Annex XVII (Restriction List) equal to or above the level of SDS disclosure

UK REACH Annex XIV (Authorisation List)

This product contains no substance(s) listed on UK REACH Annex XIV (Authorisation List) equal to or above the 0.1% level of disclosure

UK REACH Candidate List (SVHC)

This product contains no substance(s) listed on the UK REACH Candidate List (SVHC) above the 0.1% level of disclosure

GB PIC Regulation (Prior Informed Consent)

This product contains no substance(s) listed on the GB PIC List equal to or above the level of SDS disclosure

POP Regulation (Persistent Organic Pollutants)

This product contains no substance(s) listed on the GB POP List equal to or above the level of SDS disclosure

Ozone Regulation (S.I. No. 168 of 2015)

This product contains no substance(s) listed on the GB Ozone Depletion List equal to or above the level of SDS disclosure

Campylobacter Enrichment Broth (Bolton Broth)

Safety Data Sheet

According REACH Regulation 1907/2006 as retained in UK law by UK REACH SI 2019 No. 758 as amended

Control of Poisons and Explosives Precursors Act

This product contains no substance(s) listed as a reportable poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a reportable explosive precursor on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This substance is not listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations

Drug Precursors Regulation (EC 273/2004)

This product contains no substance(s) listed on the GB Drug Precursors List equal to or above the level of SDS disclosure

15.1.2. Other Information

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
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 Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet (SDS), UK

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.