

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

1.1. Product identifier

Product form : Mixture
Product name : MURPHY YEAST AID
Product code : MYA
Product group : End product

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 : Food/feedstuff additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

1.4. Emergency telephone number

Emergency number : +115 978 5494
Office Hours Only

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazardous to the aquatic environment – Chronic Hazard, H412

Category 3

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

Adverse physicochemical, human health and environmental effects

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word (CLP) : -
Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP) : P273 - Avoid release to the environment.
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

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
AMMONIUM SULPHATE	CAS-No.: 7783-20-2 EC-No.: 231-984-1 REACH-no: 01-2119455044-46	15 – 30	Aquatic Chronic 3, H412
YEAST EXTRACT POWDER	CAS-No.: 8013-01-2 EC-No.: 232-387-9	1 – 5	Not classified
SODIUM CHLORIDE	CAS-No.: 7647-14-5 EC-No.: 231-598-3 REACH-no: 01-2119485491-33	1 – 5	Not classified
PHOSPHORIC ACID 75%	CAS-No.: 7664-38-2 EC-No.: 231-633-2 EC Index-No.: 015-011-00-6 REACH-no: 01-2119485924-24	1 – 5	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1, H314 Eye Dam. 1, H318
COPPER SULPHATE	CAS-No.: 7758-98-7 EC-No.: 231-847-6 EC Index-No.: 029-004-00-0 REACH-no: 01-2119520566-40	< 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
SODIUM METABISULPHITE	CAS-No.: 7681-57-4 EC-No.: 231-673-0 EC Index-No.: 016-063-00-2	< 1	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 3, H412
ZINC SULPHATE	CAS-No.: 7446-19-7 EC-No.: 231-793-3 EC Index-No.: 030-006-00-9	< 1	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
DIAMMONIUM PHOSPHATE	CAS-No.: 7783-28-0 EC-No.: 231-987-8 REACH-no: 01-2119490974-22	< 1	Not classified
MAGNESIUM SULPHATE HEPTAHYDRATE	CAS-No.: 7487-88-9 EC-No.: 231-298-2 REACH-no: 01-2119486789-11	< 1	Not classified
ASPARTIC ACID	CAS-No.: 56-84-8 EC-No.: 200-291-6	< 1	Acute Tox. 4 (Oral), H302
CALCIUM D PANTOTHENATE	CAS-No.: 137-08-06 EC-No.: 205-278-9	< 1	Not classified
INOSITOL	CAS-No.: 87-89-8 EC-No.: 201-781-2	< 1	Not classified
METHIONINE (L)	CAS-No.: 63-68-3 EC-No.: 200-562-9	< 1	Not classified
NICOTINAMIDE	CAS-No.: 98-92-0 EC-No.: 202-713-4 REACH-no: 01-2119968268-22	< 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
THIAMINE HYDROCHLORIDE	CAS-No.: 67-03-8 EC-No.: 200-641-8	< 1	Not classified
VALINE	CAS-No.: 72-18-4 EC-No.: 200-773-6	< 1	Not classified
PYRIDOXINE HYDROCHLORIDE	CAS-No.: 58-56-0 EC-No.: 200-386-2	< 1	Eye Dam. 1, H318 Aquatic Chronic 3, H412
POTASSIUM IODIDE	CAS-No.: 7681-11-0 EC-No.: 231-659-4	< 1	STOT RE 1, H372
ASPARAGINE, L	CAS-No.: 70-47-3 EC-No.: 200-735-9	< 1	Not classified

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
PHOSPHORIC ACID 75%	CAS-No.: 7664-38-2 EC-No.: 231-633-2 EC Index-No.: 015-011-00-6 REACH-no: 01-2119485924-24	(10 ≤ C < 25) Skin Irrit. 2, H315 (10 ≤ C < 25) Eye Irrit. 2, H319 (25 ≤ C ≤ 100) Skin Corr. 1B, H314

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

SECTION 4: First aid measures

4.1. Description of 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. Slightly irritating to eyes, respiratory system and skin.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Immediately rinse with plenty of water (for at least 15 minutes).
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
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. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting 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. Special hazards arising from the substance or mixture

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.

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Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

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.

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 material 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.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

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 : > 5 – ≤ 35 °C

Packaging materials : Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

PHOSPHORIC ACID 75% (7664-38-2)	
United Kingdom - Occupational Exposure Limits	
Local name	Orthophosphoric acid
WEL TWA (OEL TWA)	1 mg/m ³
WEL STEL (OEL STEL)	2 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses, Safety goggles	Droplet	Plastic	EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

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Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Protective gloves	Butyl rubber, Nitrile rubber (NBR), Latex, Natural rubber, Neoprene rubber (HNBR), Vinyl				EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection			
Device	Filter type	Condition	Standard
	Type P3, ABEK-P3		EN 136, EN 140, EN 143, EN 145, EN 149

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: greenish brown to brownish.
Odour	: Characteristic odour.
Odour threshold	: No data available
pH	: $\geq 2.01 - \leq 2.5$
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available.
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available.
Relative density	: $\geq 1.12 - \leq 1.13$
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

SODIUM CHLORIDE (7647-14-5)	
LD50 oral rat	3000 mg/kg
LD50 dermal rabbit	> 10000 mg/kg bodyweight Animal: rabbit
AMMONIUM SULPHATE (7783-20-2)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 434 (Acute Dermal Toxicity - Fixed Dose Procedure)
PHOSPHORIC ACID 75% (7664-38-2)	
LD50 oral rat	300 – 2000 mg/kg
SODIUM METABISULPHITE (7681-57-4)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.5 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
ASPARTIC ACID (56-84-8)	
LD50 oral rat	2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method)
INOSITOL (87-89-8)	
LD50 oral rat	19483.68 mg/kg bodyweight Animal: rat, Remarks on results: other:
LD50 oral	10000 mg/kg

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MAGNESIUM SULPHATE HEPTAHYDRATE (7487-88-9)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Guideline: other:
METHIONINE (L) (63-68-3)	
LD50 oral rat	> 10000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
PYRIDOXINE HYDROCHLORIDE (58-56-0)	
LD50 oral rat	7750 mg/kg bodyweight Animal: rat, Remarks on results: other., 95% CL: 6600 - 8900
ASPARAGINE, L (70-47-3)	
LD50 oral rat	> 16000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
THIAMINE HYDROCHLORIDE (67-03-8)	
LD50 oral rat	12340 mg/kg bodyweight Animal: rat, 95% CL: 10340 - 14340
LD50 oral	13347 mg/kg bodyweight Animal: mouse, 95% CL: 11527 - 15167
VALINE (72-18-4)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method)
LC50 Inhalation - Rat	> 5.26 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation))
ZINC SULPHATE (7446-19-7)	
LD50 oral	≈ 926 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other., 95% CL: 636 - 1350
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
DIAMMONIUM PHOSPHATE (7783-28-0)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity), Guideline: other:
Skin corrosion/irritation	: Not classified pH: ≥ 2.01 – ≤ 2.5
YEAST EXTRACT POWDER (8013-01-2)	
pH	No data available.
SODIUM CHLORIDE (7647-14-5)	
pH	10 (10% sol.)
AMMONIUM SULPHATE (7783-20-2)	
pH	≥ 5 – ≤ 6 5%w/w

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COPPER SULPHATE (7758-98-7)	
pH	≈ 4
PHOSPHORIC ACID 75% (7664-38-2)	
pH	< 1
ASPARTIC ACID (56-84-8)	
pH	3.03 Concentration: 10 g/L Remarks on result: 'other:'
CALCIUM D PANTOTHENATE (137-08-06)	
pH	7.0 - 9.0
INOSITOL (87-89-8)	
pH	No data available.
MAGNESIUM SULPHATE HEPTAHYDRATE (7487-88-9)	
pH	≈ 8
METHIONINE (L) (63-68-3)	
pH	7.0 - 9.0
NICOTINAMIDE (98-92-0)	
pH	No data available.
PYRIDOXINE HYDROCHLORIDE (58-56-0)	
pH	No data available.
ASPARAGINE, L (70-47-3)	
pH	No data available.
POTASSIUM IODIDE (7681-11-0)	
pH	≈ 6.9 50g/Lts
THIAMINE HYDROCHLORIDE (67-03-8)	
pH	No data available.
VALINE (72-18-4)	
pH	No data available.
DIAMMONIUM PHOSPHATE (7783-28-0)	
pH	7.8 (≥ 8.4) Remarks on result: 'other:'
Serious eye damage/irritation : Not classified pH: ≥ 2.01 – ≤ 2.5	
YEAST EXTRACT POWDER (8013-01-2)	
pH	No data available.
SODIUM CHLORIDE (7647-14-5)	
pH	10 (10% sol.)
AMMONIUM SULPHATE (7783-20-2)	
pH	≥ 5 – ≤ 6 5%w/w

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COPPER SULPHATE (7758-98-7)	
pH	≈ 4
PHOSPHORIC ACID 75% (7664-38-2)	
pH	< 1
ASPARTIC ACID (56-84-8)	
pH	3.03 Concentration: 10 g/L Remarks on result: 'other:'
CALCIUM D PANTOTHENATE (137-08-06)	
pH	7.0 - 9.0
INOSITOL (87-89-8)	
pH	No data available.
MAGNESIUM SULPHATE HEPTAHYDRATE (7487-88-9)	
pH	≈ 8
METHIONINE (L) (63-68-3)	
pH	7.0 - 9.0
NICOTINAMIDE (98-92-0)	
pH	No data available.
PYRIDOXINE HYDROCHLORIDE (58-56-0)	
pH	No data available.
ASPARAGINE, L (70-47-3)	
pH	No data available.
POTASSIUM IODIDE (7681-11-0)	
pH	≈ 6.9 50g/Lts
THIAMINE HYDROCHLORIDE (67-03-8)	
pH	No data available.
VALINE (72-18-4)	
pH	No data available.
DIAMMONIUM PHOSPHATE (7783-28-0)	
pH	7.8 (≥ 8.4) Remarks on result: 'other:'
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
AMMONIUM SULPHATE (7783-20-2)	
NOAEL (chronic, oral, animal/male, 2 years)	256 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (chronic, oral, animal/female, 2 years)	284 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

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NICOTINAMIDE (98-92-0)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
POTASSIUM IODIDE (7681-11-0)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
THIAMINE HYDROCHLORIDE (67-03-8)	
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), Guideline: other:
ZINC SULPHATE (7446-19-7)	
LOAEL (oral, rat, 90 days)	53.8 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	31.52 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
YEAST EXTRACT POWDER (8013-01-2)	
Viscosity, kinematic	Not applicable
AMMONIUM SULPHATE (7783-20-2)	
Viscosity, kinematic	Not applicable
COPPER SULPHATE (7758-98-7)	
Viscosity, kinematic	Not applicable
PHOSPHORIC ACID 75% (7664-38-2)	
Viscosity, kinematic	< 20.5 mm ² /s
ASPARTIC ACID (56-84-8)	
Viscosity, kinematic	Not applicable
CALCIUM D PANTOTHENATE (137-08-06)	
Viscosity, kinematic	Not applicable
INOSITOL (87-89-8)	
Viscosity, kinematic	Not applicable
MAGNESIUM SULPHATE HEPTAHYDRATE (7487-88-9)	
Viscosity, kinematic	Not applicable
METHIONINE (L) (63-68-3)	
Viscosity, kinematic	Not applicable
NICOTINAMIDE (98-92-0)	
Viscosity, kinematic	Not applicable
PYRIDOXINE HYDROCHLORIDE (58-56-0)	
Viscosity, kinematic	Not applicable

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ASPARAGINE, L (70-47-3)	
Viscosity, kinematic	Not applicable
POTASSIUM IODIDE (7681-11-0)	
Viscosity, kinematic	Not applicable
THIAMINE HYDROCHLORIDE (67-03-8)	
Viscosity, kinematic	Not applicable
VALINE (72-18-4)	
Viscosity, kinematic	Not applicable
ZINC SULPHATE (7446-19-7)	
Viscosity, kinematic	Not applicable
DIAMMONIUM PHOSPHATE (7783-28-0)	
Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

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

SODIUM CHLORIDE (7647-14-5)	
LC50 - Fish [1]	5840 mg/l Test organisms (species): Lepomis macrochirus
EC50 - Other aquatic organisms [1]	2024 mg/l
LOEC (chronic)	441 mg/l Test organisms (species): Daphnia pulex Duration: '21 d'
NOEC (chronic)	314 mg/l Test organisms (species): Daphnia pulex Duration: '21 d'

AMMONIUM SULPHATE (7783-20-2)	
LC50 - Fish [1]	53 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
LC50 - Fish [2]	57.2 mg/l Test organisms (species): Prosopium williamsoni
EC50 - Crustacea [1]	169 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	121.7 mg/l Test organisms (species): other:

PHOSPHORIC ACID 75% (7664-38-2)	
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	> 100 mg/l
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

SODIUM METABISULPHITE (7681-57-4)	
LC50 - Fish [1]	464 – 1000 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	89 mg/l Test organisms (species): Daphnia magna

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SODIUM METABISULPHITE (7681-57-4)	
EC50 72h - Algae [1]	43.8 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i>)
NOEC (chronic)	> 10 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
NOEC chronic fish	≥ 316 mg/l Test organisms (species): <i>Danio rerio</i> (previous name: <i>Brachydanio rerio</i>) Duration: '34 d'
INOSITOL (87-89-8)	
LC50 - Fish [1]	5424.33 mg/l Test organisms (species): <i>Pimephales promelas</i>
EC50 72h - Algae [1]	> 36600 mg/l Test organisms (species): other:
MAGNESIUM SULPHATE HEPTAHYDRATE (7487-88-9)	
LC50 - Fish [1]	680 mg/l Test organisms (species): <i>Pimephales promelas</i>
EC50 - Other aquatic organisms [1]	720 mg/l
METHIONINE (L) (63-68-3)	
LC50 - Fish [1]	> 3200 mg/l Test organisms (species): <i>Danio rerio</i> (previous name: <i>Brachydanio rerio</i>)
LC50 - Fish [2]	> 3200 mg/l Test organisms (species):
EC50 - Crustacea [1]	324 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 - Other aquatic organisms [1]	324 mg/l Test organisms (species):
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i>)
EC50 72h - Algae [2]	> 1000 mg/l Test organisms (species):
PYRIDOXINE HYDROCHLORIDE (58-56-0)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>)
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 72h - Algae [1]	72 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i>)
ASPARAGINE, L (70-47-3)	
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
POTASSIUM IODIDE (7681-11-0)	
LC50 - Fish [1]	3780 mg/l
EC50 - Other aquatic organisms [1]	7.5 mg/l
THIAMINE HYDROCHLORIDE (67-03-8)	
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i>)
VALINE (72-18-4)	
LC50 - Fish [1]	> 10 g/l Test organisms (species): <i>Danio rerio</i> (previous name: <i>Brachydanio rerio</i>)
DIAMMONIUM PHOSPHATE (7783-28-0)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>)

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DIAMMONIUM PHOSPHATE (7783-28-0)	
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

MURPHY YEAST AID	
Persistence and degradability	Not rapidly degradable
YEAST EXTRACT POWDER (8013-01-2)	
Persistence and degradability	Not rapidly degradable
SODIUM CHLORIDE (7647-14-5)	
Persistence and degradability	Not rapidly degradable
AMMONIUM SULPHATE (7783-20-2)	
Persistence and degradability	Not rapidly degradable
COPPER SULPHATE (7758-98-7)	
Persistence and degradability	Not rapidly degradable
PHOSPHORIC ACID 75% (7664-38-2)	
Persistence and degradability	Not rapidly degradable
SODIUM METABISULPHITE (7681-57-4)	
Persistence and degradability	Not rapidly degradable
ASPARTIC ACID (56-84-8)	
Persistence and degradability	Not rapidly degradable
CALCIUM D PANTOTHENATE (137-08-06)	
Persistence and degradability	Not rapidly degradable
INOSITOL (87-89-8)	
Persistence and degradability	Not rapidly degradable
MAGNESIUM SULPHATE HEPTAHYDRATE (7487-88-9)	
Persistence and degradability	Not rapidly degradable
METHIONINE (L) (63-68-3)	
Persistence and degradability	Not rapidly degradable
NICOTINAMIDE (98-92-0)	
Persistence and degradability	Not rapidly degradable
PYRIDOXINE HYDROCHLORIDE (58-56-0)	
Persistence and degradability	Not rapidly degradable
ASPARAGINE, L (70-47-3)	
Persistence and degradability	Not rapidly degradable
POTASSIUM IODIDE (7681-11-0)	
Persistence and degradability	Not rapidly degradable

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THIAMINE HYDROCHLORIDE (67-03-8)	
Persistence and degradability	Not rapidly degradable
VALINE (72-18-4)	
Persistence and degradability	Not rapidly degradable
ZINC SULPHATE (7446-19-7)	
Persistence and degradability	Not rapidly degradable
DIAMMONIUM PHOSPHATE (7783-28-0)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

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14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

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. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4

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Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
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
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

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.