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

1.1. Product identifier

Product code : RZ500
Trade name : RNase Zero

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

Use : For research purposes only

1.3. Details of the supplier of the safety data sheet

Company identification **Formedium Ltd.**
King's Lynn, Norfolk PE31 6DJ
Tel: +44(0)1485 609069
Fax: +44(0)1485 600510
E-mail: info@formedium.com

1.4. Emergency telephone number

Emergency phone nr : Tel: +44(0)1485 609069 (local time : 09.00 to 17.00)
National Poison Information Centre : Europe UK : +44 0845 4647
(this service is only available to health professionals)
See www.toxbase.org for a local poison centre

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272 / 2008 as amended by GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567

Hazardous categories:
Skin corrosion / irritation : Skin Irrit. 2
Serious eye damage / eye irritation: Eye Irrit. 2

Hazard statements:
H315 – causes skin irritation.
H319 – causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272 / 2008 as amended by GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567

Hazard component for labelling
dodecyl sulphate sodium salt

Pictogram:



Warning

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SECTION 2 Hazards identification (continued)

Hazard Statements:	H315 – causes skin irritation. H319 – causes serious eye irritation.
Precautionary Statement(s):	P264: Wash hands thoroughly after handling. P280: Wear protective gloves, protective clothing, eye protection, face protection. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. P332+P313 - If skin irritation occurs; Get medical advice / attention. P337 + P313 – If eye irritation persists: Get medical advice / attention. P362 – Take off contaminated clothing and wash before re-use.
Supplemental Hazard Statement(s):	None
EUH210	Safety data sheet available on request.

2.3. Label elements

This substance / mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3 Composition / information on ingredients

3.2. Mixtures

Dodecyl sulphate sodium salt		
Component	Classification	Concentration
CAS Number: 151-21-3 EC Number: 205-788-1	Acute Tox. 4; Skin Irrit. 2; Eye Dam 1; Aquatic Chronic 3; H302, H315, H318, H412 Concentration limits: 10 - < 20%: Eye Irrit. 2, H319	<=1%

For the full text of the H-statements mentioned in this Section, see Section 16.

SECTION 4 First aid measures

4.1. Description of first aid measures

Inhalation:

Assure fresh air breathing. If not breathing, give artificial respiration. Seek medical advice.

Skin contact:

Wash off with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required.

Eye contact:

Remove contact lenses. Keep eyelids open and rinse immediately with plenty of water.

Ingestion:

After swallowing, make victim drink water (two glasses at most). Seek medical attention if ill effects develop. Never give anything by mouth to an unconscious person or a person with cramps.

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SECTION 4 First Aid measures (continued)

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and / or in section 11.

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

No information available.

SECTION 5 Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : For this substance / mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture

Carbon oxides

Sulfur oxides

Sodium oxides

Not combustible

Vapors are heavier than air and may spread along floor.

Forms explosive mixtures with air on intense heating.

Ambient fire may liberate hazardous vapours.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing appliances.

5.4. Further information

Suppress (knock down) gases / vapours / mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water systems.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel:

Do not breathe vapours, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2. Environmental precautions

Do not allow product to enter drains or surface water.

6.3. Methods and material for containment and cleaning up

Cover drains. Collect, bund and pump off spills. Observe possible material restrictions (see Sections 7 and 10)

Use liquid absorbent material. Dispose of properly. Clean up affected area.

6.4. Reference to other sections

Disposal : see section 13

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SECTION 8 Exposure controls / personal protection

7.1. Precautions for safe handling

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Personal protective equipment

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Eye / Face protection

Use equipment for eye protection tested and approved under appropriate standards such as NIOSH (US) or EN 166 (EU).
Wear safety glasses with side shields.

Hand protection

When handling wear impervious gloves.

Skin and body protection

Wear suitable lightweight protective clothing.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Use equipment for respiratory protection tested and approved under appropriate standards such as DIN EN 143, DIN 14387. Recommended filter type: ABEK.

Control of environmental exposure

Do not let product enter drains.

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SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: liquid
Colour	: No information available
Odour	: No information available
Initial boiling point / boiling range	: No data available
Melting point / freezing point	: No data available
Flammability (solid, gas)	: No data available
Flash point	: 100 Deg C (closed cup)
Autoignition temperature	: No data available
Decomposition temperature	: No data available
pH	: 7.0 – 7.4
Water solubility	: Soluble
Viscosity	: No data available
Partition coefficient: n-octanol/water	: No data available
Vapour pressure	: No data available
Density	: 1.000 g/cm ³
Relative density	: No data available
Relative vapour density	: No data available
Particle characteristics	: No data available
Explosive properties	: Not classified as explosive
Oxidizing properties	: None

9.2. Other information

No data available.

SECTION 10 Stability and reactivity

10.1. Reactivity

Forms explosive mixtures with air on intense heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.1. Chemical stability

The product is chemically stable under normal ambient conditions (room temperature).

10.2. Possibility of hazardous reactions

None.

10.3. Conditions to avoid

Keep away from strong heating..

10.4. Incompatible materials

Acids , Oxidizing agents, Reducing agents, Bases.

10.5. Hazardous decomposition products

In the event of fire : see section 5.

RNase Zero**RZ500****SECTION 11 Toxicological information****11.1. Information on toxicological effects****Mixture****Acute toxicity**

Oral : No data available
Inhalation : No data available
Dermal : No data available

Skin corrosion / irritation : No data available

Serious eye damage / eye irritation : No data available

Respiratory or skin sensitization : No data available

Germ cell mutagenicity : No data available

Reproductive toxicity : No data available

Specific target organ toxicity : No data available

- **Single exposure**

Specific target organ toxicity : No data available

- **Repeated exposure**

Aspiration hazard : No data available

11.2. Additional Information**Endocrine disrupting properties****Product:**

Assessment The substance / mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

To the best of our knowledge, the chemical, physical and toxicological properties have not been properly investigated. Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

Components**Dodecyl sulphate sodium salt****Acute toxicity**

LD50 Oral – Rat – female – 977 mg / Kg (OECD Test Guideline 401)

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute toxicity estimate – Oral – 977 mg / Kg (Calculation method)

Symptoms: mucosal irritations, cough, shortness of breath, Possible damages: damage of respiratory tract.

LD50 Dermal – Rat – male and female – > 2,000 mg / Kg (OECD Test Guideline 402)

Skin corrosion / irritation

Skin – Rabbit Result: Irritations – 24 h (OECD Test Guideline 404)

Serious Eye damage / eye irritation

Eyes – Rabbit Result: Irreversible effects on eye (OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test – Guinea Pig Result: negative (Remarks: IUCLID)

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SECTION 11 Toxicological information (continued)

Germ cell mutagenicity

Test type : Ames test
Test system : Escherichia coli / Salmonella typhimurium Result: Negative

Test Type : In vitro mammalian cell gene mutation test
Test system : mouse lymphoma cells Result: Negative
Method : OECD Test Guidelines 478
Species : Mouse – male and female – Intrauterine Result: Negative

Carcinogenicity : No data available

Reproductive toxicity : No data available

Specific target organ toxicity – single exposure

Acute oral toxicity – Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.
Acute inhalation toxicity - mucosal irritations, cough, shortness of breath, Possible damages: damage of respiratory tract.

Specific target organ toxicity – repeated exposure

Acute oral toxicity – Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.
Acute inhalation toxicity - mucosal irritations, cough, shortness of breath, Possible damages: damage of respiratory tract.

Aspiration hazard

No data available

SECTION 12 Ecological information

12.1. Toxicity

Mixture No information available.

12.2. Persistence - degradability

This product has not been tested. No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This substance / mixture contains no components considered to be either persistent , bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6. Endocrine disrupting properties**Product**

Assessment : The substance / mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects

No data available.

RNase Zero**RZ500****SECTION 12 Ecological information (continued)****Components****Dodecyl sulphate sodium salt**

Toxicity to fish	flow-through test LC50 – Pimephales promelas (fathead minnow) – 29 mg/L – 96h (OECD Test Guideline 202)
Toxicity to daphnia and other aquatic invertebrates	flow-through test LC50 – Ceriodaphnia dubia (water flea) – 5.55 mg/L – 48h (OECD Test Guideline 202)
Toxicity to algae	static test ErC50 – desmodesmus subspicatus (green algae) – >120 mg/L – 72h (DIN38412)
Toxicity to bacteria	static test EC50 – activated sludge – 135 mg/L – 3h (ECHA)
Toxicity to fish (Chronic toxicity)	flow-through test NOEC – Pimephales promelas (fathead minnow) - >= 1.357 mg/L – 42d (ECHA)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	flow-through test NOEC – Ceriodaphnia dubia (water flea) – 0.88 mg/L – 7d (US EPA)

SECTION 13 Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Dispose of waste according to applicable legislation. Consult the appropriate waste disposal expert about waste disposal. Leave chemicals in original containers. No mixing with other waste. Handle contaminated packages in the same way as the substance itself. Notice Directive on waste 2008/98/EC.

SECTION 14 Transport information**14.1. UN Number**

Not applicable

General information : Not classified as dangerous in the meaning of transport regulations**14.2. Proper shipping name**

Not applicable

14.3. Transport Hazard Classification

Not applicable

14.4. Packing Group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

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SECTION 15 Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No.: 2015 / 830

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16 Other information

Further information :

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Formedium Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

Complete SDS revision

End of document