

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

1.1. Product identifier

Product form : Mixture
Trade name : Reveal® 3-D Food Buffer
Product code : 8504
Type of product : Food Safety -- [Food Safety]
Part Number(s) : 8504|700002590

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

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 Leshner 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)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

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)

EUH-statements (GHS UK) : EUH208 - Contains BENZISOTHIAZOLINONE. May produce an allergic reaction.
EUH210 - Safety data sheet available on request.

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 | Di-sodium hydrogen phosphate (10028-24-7), 1,2-Benzisothiazol-3(2H)-one (2634-33-5) |
| Substance(s) not meeting the vPvB criteria of UK REACH regulation, in accordance with Annex XIII | Di-sodium hydrogen phosphate (10028-24-7), 1,2-Benzisothiazol-3(2H)-one (2634-33-5) |

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

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 | Di-sodium hydrogen phosphate(10028-24-7), 1,2-Benzisothiazol-3(2H)-one(2634-33-5) |

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) |
|------------------------------|--|-------|--|
| Di-sodium hydrogen phosphate | CAS-No.: 10028-24-7 EC-No.: 231-448-7 | 2 – 5 | Acute Tox. 3 (Inhalation:dust,mist), H331 (ATE=0.5 mg/l/4h) |
| 1,2-Benzisothiazol-3(2H)-one | CAS-No.: 2634-33-5 EC-No.: 220-120-9 | < 0.1 | Acute Tox. 4 (Oral), H302 (ATE=490 mg/kg bodyweight) Acute Tox. 2 (Inhalation), H330 (ATE=0.21 mg/l/4h) Acute Tox. 2 (Inhalation:dust,mist), H330 (ATE=0.21 mg/l/4h) Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT RE 2, H373 Aquatic Chronic 1, H410 |

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Self protection of the first-aider : First aid workers will be equipped with suitable personal protective equipment.

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

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

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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

No additional information available

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

No additional information available

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

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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 | : Liquid |
| Appearance | : Liquid. |
| Colour | : Cloudy. |
| Odour | : Odourless. |
| Odour threshold | : Not available |
| pH | : 7 – 7.4 |
| Melting point | : Not available |
| Freezing point | : Not available |
| Boiling point | : Not available |
| Flash point | : Not available |
| Flammability | : Not available |
| Explosive limits | : Not available |
| Vapour pressure | : Not available |
| Vapour pressure at 50°C | : Not available |
| Relative vapour density at 20°C | : Not available |
| Relative density | : Not available |
| Density | : Not available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Auto-ignition temperature | : Not available |
| Decomposition temperature | : Not available |
| Viscosity, kinematic | : Not available |
| Explosive properties | : Not available |

9.2. Other information

Particle characteristics : Not applicable

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

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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)

Di-sodium hydrogen phosphate (10028-24-7)

| | |
|-----------------------|--|
| LD50 oral rat | > 2000 mg/kg bodyweight (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Anhydrous form, Oral, 14 day(s)) |
| LD50 dermal rat | > 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Anhydrous form, Dermal, 14 day(s)) |
| LC50 Inhalation - Rat | > 0.83 mg/l (EPA OPP 81-3: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Anhydrous form, Inhalation (dust), 14 day(s)) |

1,2-Benzisothiazol-3(2H)-one (2634-33-5)

| | |
|-----------------------------------|--|
| LD50 oral rat | 490 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 oral | 670 mg/kg |
| LD50 dermal rat | > 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) |
| LD50 dermal | 2500 mg/kg |
| LC50 Inhalation - Rat (Dust/Mist) | 0.21 mg/l/4h |
| LC50 Inhalation - Rat (Vapours) | 0.25 mg/l |

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 7 – 7.4

Di-sodium hydrogen phosphate (10028-24-7)

| | |
|----|---------|
| pH | 9 (1 %) |
|----|---------|

1,2-Benzisothiazol-3(2H)-one (2634-33-5)

| | |
|----|-------------------------------------|
| pH | No data available in the literature |
|----|-------------------------------------|

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 7 – 7.4

Di-sodium hydrogen phosphate (10028-24-7)

| | |
|----|---------|
| pH | 9 (1 %) |
|----|---------|

1,2-Benzisothiazol-3(2H)-one (2634-33-5)

| | |
|----|-------------------------------------|
| pH | No data available in the literature |
|----|-------------------------------------|

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)

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

| 1,2-Benzisothiazol-3(2H)-one (2634-33-5) | |
|--|---|
| NOAEL (animal/female, F0/P) | 112 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) |
| NOAEL (animal/female, F1) | 56.6 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects) |

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)

| 1,2-Benzisothiazol-3(2H)-one (2634-33-5) | |
|--|--|
| NOAEL (oral, rat, 90 days) | 50 mg/kg bw/day |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

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

| Di-sodium hydrogen phosphate (10028-24-7) | |
|---|------------------------|
| Viscosity, kinematic | Not applicable (solid) |

| 1,2-Benzisothiazol-3(2H)-one (2634-33-5) | |
|--|------------------------|
| 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)

| Di-sodium hydrogen phosphate (10028-24-7) | |
|---|---|
| LC50 - Fish [1] | > 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Anhydrous form) |
| EC50 - Crustacea [1] | > 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Anhydrous form) |
| ErC50 algae | > 100 mg/l (EU Method C.3, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Anhydrous form) |

| 1,2-Benzisothiazol-3(2H)-one (2634-33-5) | |
|--|---|
| LC50 - Fish [1] | 2.2 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Experimental value, Nominal concentration) |
| LC50 - Fish [2] | 2.15 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |
| EC50 - Crustacea [1] | 2.9 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Experimental value, Lethal) |
| EC50 - Crustacea [2] | 2.9 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | 0.51 mg/l |
| ErC50 algae | 150 µg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Experimental value, GLP) |
| NOEC chronic algae | 0.0403 mg/l |

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12.2. Persistence and degradability

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| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

Di-sodium hydrogen phosphate (10028-24-7)

| | |
|-------------------------------|-----------------------------------|
| Persistence and degradability | Biodegradability: not applicable. |
|-------------------------------|-----------------------------------|

| | |
|------------------------------|----------------------------|
| Chemical oxygen demand (COD) | Not applicable (inorganic) |
|------------------------------|----------------------------|

| | |
|------|----------------------------|
| ThOD | Not applicable (inorganic) |
|------|----------------------------|

1,2-Benzisothiazol-3(2H)-one (2634-33-5)

| | |
|-------------------------------|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |
|-------------------------------|-------------------------------------|

12.3. Bioaccumulative potential

Di-sodium hydrogen phosphate (10028-24-7)

| | |
|---------------------------|----------------------|
| Bioaccumulative potential | Not bioaccumulative. |
|---------------------------|----------------------|

1,2-Benzisothiazol-3(2H)-one (2634-33-5)

| | |
|----------------|---|
| BCF - Fish [1] | 6.6 (Equivalent or similar to OECD 305, 56 day(s), Lepomis macrochirus, Experimental value, Fresh weight) |
|----------------|---|

| | |
|---|--|
| Partition coefficient n-octanol/water (Log Pow) | -0.9 – 1 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C) |
|---|--|

| | |
|---------------------------|--|
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
|---------------------------|--|

12.4. Mobility in soil

Di-sodium hydrogen phosphate (10028-24-7)

| | |
|-----------------|-------------------------------------|
| Surface tension | No data available in the literature |
|-----------------|-------------------------------------|

| | |
|----------------|---|
| Ecology - soil | No (test)data on mobility of the substance available. |
|----------------|---|

1,2-Benzisothiazol-3(2H)-one (2634-33-5)

| | |
|-----------------|--|
| Surface tension | 72.6 mN/m (20 °C, 0.1 %, EU Method A.5: Surface tension) |
|-----------------|--|

| | |
|--|--|
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0.97 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP) |
|--|--|

| | |
|----------------|------------------------|
| Ecology - soil | Highly mobile in soil. |
|----------------|------------------------|

12.5. Results of PBT and vPvB assessment

Component

| | |
|---|---|
| Di-sodium hydrogen phosphate (10028-24-7) | 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 |
|---|---|

| | |
|--|---|
| 1,2-Benzisothiazol-3(2H)-one (2634-33-5) | 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)

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No additional information available

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 |
| Transport document description | | | | |
| 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 | | | | |

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. 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

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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

Control of Poisons and Explosives Precursors Act

This product contains substance(s) listed on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure: Sodium hydroxide - 1310-73-2 (12 % of total caustic alkalinity)

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. 2 (Inhalation) | Acute toxicity (inhal.), Category 2 |
| Acute Tox. 2 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 2 |
| Acute Tox. 3 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 3 |
| Acute Tox. 4 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment – Chronic Hazard, Category 1 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Met. Corr. 1 | Corrosive to metals, Category 1 |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1, Sub-Category 1A |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1, Sub-Category 1B |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| Skin Sens. 1A | Skin sensitisation, category 1A |
| STOT RE 2 | Specific target organ toxicity – Repeated exposure, Category 2 |

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| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H410 | Very toxic 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.