

A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Cat. # DG535

CMC-535™ Detergent Assay

Size: 200 assays



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 5/11/2017

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

1.1. Product identifier

Product form : Mixture

Product name : CMC-535™ Fluorescent Dye [100X]

Product code : 092E
Product group : Trade product

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Geno Technology, Inc./ G-Biosciences 9800 Page Avenue

63132-1429 Saint Louis - United States

T 800-628-7730 - F 314-991-1504

technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

SECTION 4: First aid measures

4.1. Description of first aid measures

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.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

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

No additional information available

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.

5.2. Special hazards arising from the substance or mixture

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

5/11/2017 EN (English) 1/5

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

5.3. Advice for firefighters

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

6.1.1. For non-emergency personnel

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".

6.2. Environmental precautions

Avoid release to the environment

6.3. Methods and material for containment and cleaning up

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

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

Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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 : No data available
Odour : No data available
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available

Melting point : No data available

Freezing point : No data available

No data available

No data available

No data available

5/11/2017 EN (English) 2/5

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Boiling point No data available Flash point : No data available : No data available Auto-ignition temperature : No data available Decomposition temperature Flammability (solid, gas) : Not applicable Vapour pressure : No data available Relative vapour density at 20 °C : No data available Relative density : No data available : No data available Solubility 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

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

Hazardous decomposition products.

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 Skin corrosion/irritation : Not classified Serious eye damage/irritation : Not classified Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified Not classified Carcinogenicity Reproductive toxicity : Not classified STOT-single exposure Not classified STOT-repeated exposure Not classified Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term

adverse effects in the environment.

Acute aquatic toxicity : Not classified Chronic aquatic toxicity : Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

Waste treatment methods Waste treatment methods

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR) : Not applicable
UN-No. (IMDG) : Not regulated
UN-No. (IATA) : Not regulated
UN-No. (ADN) : Not applicable
UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not regulated

IATA

Transport hazard class(es) (IATA) : Not regulated

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : 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

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Safety Data Sheet applicable for regions : GB - United Kingdom

SDS EU (REACH Annex II)

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.

5/11/2017 EN (English) 5/5



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 5/11/2017

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

1.1. Product identifier

Product form : Mixture

Product name : CMC-535™ Reagent 1 and 2

Product code : 093E_094E
Product group : Trade product

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Geno Technology, Inc./ G-Biosciences 9800 Page Avenue 63132-1429 Saint Louis - United States T 800-628-7730 - F 314-991-1504

technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)

| Country | Organisation/Company | Address | Emergency number | Comment |
|----------------|--|---|------------------|---------|
| United Kingdom | National Poisons Information Service (Belfast Centre) Royal Victoria Hospital | Grosvenor Road BT12 6BA Belfast | 0344 892 0111 | |
| United Kingdom | National Poisons Information Service (Birmingham Centre) City Hospital | Dudley Road B18 7QH Birmingham | 0344 892 0111 | |
| United Kingdom | National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital | Penarth CF64 2XX Cardiff | 0344 892 0111 | |
| United Kingdom | National Poisons Information Service Edinburgh Royal Infirmary of Edinburgh | Little France Crescent EH16 4SA Edinburgh | 0344 892 0111 | |
| United Kingdom | Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust | Avonley Road SE14 5ER London | +44 20 7188 7188 | |
| United Kingdom | National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit | Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle | 0344 892 0111 | |

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, Category 3 H412

Full text of H 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]

CLP Signal word : -

Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.

5/11/2017 EN (English) 1/9

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] | |
|---|--|----------------|---|--|
| Deionized water | (CAS-No.) 7732-18-5 | >= 80 | Not classified | |
| glycerol (CAS-No.) 56-81-5 (EC-No.) 200-289-5 | | Not classified | | |
| Sodium Chloride(NaCl) | (CAS-No.) 7647-14-5 < 2.922 Not classified (EC-No.) 231-598-3 | | Not classified | |
| tris(hydroxymethyl)aminomethane | (CAS-No.) 77-86-1 (EC-No.) 201-064-4 | < 1.2114 | Not classified | |
| polyoxyethylene(23)lauryl ether | (CAS-No.) 9002-92-0 | < 1.19954 | .19954 Not classified | |
| edetic acid | (CAS-No.) 60-00-4 (EC-No.) 200-449-4 (EC Index-No.) 607-429-00-8 | < 0.29224 | Eye Irrit. 2, H319 | |
| DTT [1M](15.4mg) | (CAS-No.) 27565-41-9 (EC-No.) 248-531-9 | < 0.154253 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 | |
| MAGNESIUM ACETATE | (CAS-No.) 142-72-3 (EC-No.) 205-554-9 | < 0.142394 | Not classified | |
| Potassium Phosphate (Monobasic) | (CAS-No.) 7778-77-0 (EC-No.) 231-913-4 | | | |
| copper(II) chloride,dihydrate | (CAS-No.) 10125-13-0 (EC-No.) 231-210-2 | < 0.1 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) | |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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. First-aid measures after eye contact : Rinse eyes with water as a precaution.

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

No additional information available

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.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

5/11/2017 2/9 EN (English)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

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".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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

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

Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

glycerol (56-81-5)

United Kingdom - Occupational Exposure Limits

WEL TWA (mg/m³) 10 mg/m³

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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 : No data available
Odour : No data available
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : Not applicable
Freezing point : No data available

5/11/2017 EN (English) 3/9

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| 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 | : No data available |
| Solubility | : No data available |
| 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

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

Hazardous decomposition products.

SECTION 11: Toxicological information

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

| glycerol (56-81-5) | | |
|----------------------------|--|--|
| LD50 oral rat | 27200 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Female, Experimental value, Oral) | |
| LD50 dermal | 56750 mg/kg (4 day(s), Guinea pig, Male / female, Experimental value, Dermal, 14 day(s)) | |
| LC50 inhalation rat (mg/l) | > 2.75 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Converted value, Inhalation (vapours)) | |

| edetic acid (60-00-4) | |
|-----------------------|--|
| | 4500 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) |

| Sodium Chloride(NaCl) (7647-14-5) | |
|-----------------------------------|--|
| LD50 oral rat | > 3980 mg/kg bodyweight (Rat, Experimental value, 20% aqueous solution, Oral) |
| LD50 dermal rabbit | > 10000 mg/kg (Rabbit, Experimental value, Dermal) |
| LC50 inhalation rat (mg/l) | > 42 mg/l air (1 h, Rat, Male, Experimental value, 20% aqueous solution, Inhalation (aerosol)) |

| tris(hydroxymethyl)aminomethane (77-86-1) | |
|---|--|
| LD50 oral rat | > 5000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s)) |

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| LD50 dermal rat | > 5000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, |
|-----------------|---|
| | Experimental value, Dermal) |

| Potassium Phosphate (Monobasic) (7778-77-0) | | |
|---|-------------------------------|--|
| | | |
| LD50 oral rat | 7100 mg/kg (Rat, Oral) | |
| LD50 dermal rabbit | > 4640 mg/kg (Rabbit, Dermal) | |
| Skin corrosion/irritation | : Not classified | |
| Serious eye damage/irritation | : Not classified | |
| Respiratory or skin sensitisation | : Not classified | |
| Germ cell mutagenicity | : Not classified | |
| Carcinogenicity | : Not classified | |
| Reproductive toxicity | : Not classified | |
| STOT-single exposure | : Not classified | |
| STOT-repeated exposure | : Not classified | |
| Aspiration hazard | : Not classified | |

SECTION 12: Ecological information

| 12.1 | | |
|------|--|--|
| | | |
| | | |
| | | |

Ecology - general : Harmful to aquatic life with long lasting effects.

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

| glycerol (56-81-5) | | |
|--------------------|--|--|
| LC50 fish 1 | 54000 mg/l (96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Lethal) | |
| EC50 Daphnia 1 | > 10000 mg/l (24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect) | |

| edetic acid (60-00-4) | |
|-----------------------|---|
| LC50 fish 1 | 159 mg/l (US EPA, 96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Nominal concentration) |
| EC50 Daphnia 1 | 140 mg/l (DIN 38412-11, 48 h, Daphnia magna, Static system, Fresh water, Read-across, Locomotor effect) |
| ErC50 (algae) | > 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Weight of evidence, GLP) |

| Sodium Chloride(NaCl) (7647-14-5) | |
|-----------------------------------|---|
| LC50 fish 1 | 5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value) |

| tris(hydroxymethyl)aminomethane (77-86-1) | |
|---|--|
| EC50 Daphnia 1 | > 980 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP) |
| EC50 72h algae (1) | 397 mg/l (Equivalent or similar to OECD 201, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate) |

| Potassium Phosphate (Monobasic) (7778-77-0) | |
|--|-----------------------------------|
| LC50 fish 1 | > 900 mg/l (48 h, Leuciscus idus) |
| 12.2. Persistence and degradability | |
| MAGNESIUM ACETATE (142-72-3) Persistence and degradability Biodegradability in water: no data available. | |

| glycerol (56-81-5) | |
|-------------------------------|---------------------------------|
| Persistence and degradability | Readily biodegradable in water. |

5/11/2017 EN (English) 5/9

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Biochemical oxygen demand (BOD) | 0.87 g O₂/g substance |
|---------------------------------|-------------------------------------|
| Chemical oxygen demand (COD) | 1.16 g O ₂ /g substance |
| ThOD | 1.217 g O ₂ /g substance |
| BOD (% of ThOD) | 0.71 |

| polyoxyethylene(23)lauryl ether (9002-92-0) | |
|---|---------------------------|
| Persistence and degradability | Inherently biodegradable. |

| DTT [1M](15.4mg) (27565-41-9) | |
|-------------------------------|---|
| Persistence and degradability | Biodegradability in water: no data available. |

| edetic acid (60-00-4) | |
|---------------------------------|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.01 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 0.85 g O ₂ /g substance |
| ThOD | 1.09 g O ₂ /g substance |
| BOD (% of ThOD) | 0.0091 |

| Sodium Chloride(NaCl) (7647-14-5) | |
|-----------------------------------|-----------------------------------|
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

| tris(hydroxymethyl)aminomethane (77-86-1) | | |
|---|-------------------------------|---------------------------------|
| | Persistence and degradability | Readily biodegradable in water. |

| copper(II) chloride,dihydrate (10125-13-0) | |
|--|---|
| Persistence and degradability | Biodegradability in soil: not applicable. Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

| Potassium Phosphate (Monobasic) (7778-77-0) | |
|---|------------------------------------|
| Persistence and degradability | Biodegradability: not applicable. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |
| 12.3. Bioaccumulative potential | |
| MAGNESIUM ACETATE (142-72-3) | |
| Bioaccumulative potential | No bioaccumulation data available. |

| glycerol (56-81-5) | |
|---------------------------|--|
| Log Pow | -1.75 (Experimental value, Equivalent or similar to OECD 107, 25 °C) |
| Bioaccumulative potential | Not bioaccumulative. |

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| (25) 4.1.9 (5.1.05) (4.2.10.1) | |
|---|------------------------------------|
| polyoxyethylene(23)lauryl ether (9002-92-0) | |
| Bioaccumulative potential | No bioaccumulation data available. |

| DTT [1M](15.4mg) (27565-41-9) | |
|-------------------------------|------------------------------------|
| Bioaccumulative potential | No bioaccumulation data available. |

| edetic acid (60-00-4) | |
|---------------------------|--|
| BCF fish 1 | 1.1 - 1.8 (28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Readacross, Fresh weight) |
| Log Pow | 0.13 (Weight of evidence approach) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| Sodium Chloride(NaCl) (7647-14-5) | |
|-----------------------------------|----------------------|
| Log Pow | -3 (Calculated) |
| Bioaccumulative potential | Not bioaccumulative. |

| tris(hydroxymethyl)aminomethane (77-86-1) | |
|---|--|
| Log Pow | -2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 $^{\circ}\text{C})$ |
| Bioaccumulative potential | Not bioaccumulative. |

| copper(II) chloride,dihydrate (10125-13-0) | |
|--|--|
| BCF fish 1 | 290 (Pimephales promelas, Copper ion) |
| BCF other aquatic organisms 1 | 17700 (Corbicula sp., Copper ion) |
| BCF other aquatic organisms 2 | 471 (148 h, Daphnia magna, Anhydrous form) |
| Bioaccumulative potential | Bioaccumable. |

| Potassium Phosphate (Monobasic) (7778-77-0) | |
|---|---|
| Bioaccumulative potential | No bioaccumulation data available. |
| 12.4. Mobility in soil | |
| glycerol (56-81-5) | |
| Surface tension | 0.0634 N/m (20 °C, 1000 g/l) |
| Ecology - soil | No (test)data on mobility of the substance available. |

| edetic acid (60-00-4) | |
|-----------------------|--|
| Log Koc | 2.495 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Low potential for adsorption in soil. |

| Sodium Chloride(NaCl) (7647-14-5) | |
|-----------------------------------|---|
| Surface tension | 73.03 mN/m (23 °C, 14.5 g/l) |
| Ecology - soil | No (test)data on mobility of the substance available. |

| tris(hydroxymethyl)aminomethane (77-86-1) | |
|---|------------------------|
| Log Koc | 1.87 (log Koc, QSAR) |
| Ecology - soil | Highly mobile in soil. |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| 12.5. Results of PBT and vPvB assessment | | |
|---|--|--|
| Component | | |
| glycerol (56-81-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII | |
| edetic acid (60-00-4) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII | |
| Sodium Chloride(NaCl) (7647-14-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII | |
| tris(hydroxymethyl)aminomethane (77-86-1) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII | |

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Waste treatment methods.

| SECTIO | N 14: Trans | nort inf | format | ion |
|---------------|-----------------------|----------|--------|------|
| JECTIO | I v 14. 11a115 | | Ullila | IUII |

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

| 14.1. UN number | |
|-----------------|------------------|
| UN-No. (ADR) | : Not applicable |
| UN-No. (IMDG) | : Not regulated |
| UN-No. (IATA) | : Not regulated |
| UN-No. (ADN) | : Not applicable |
| UN-No. (RID) | : Not applicable |

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not regulated

IATA

Transport hazard class(es) (IATA) : Not regulated

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not regulated

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

| Full text of H- and EUH-statements: | | |
|-------------------------------------|--|--|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 | |
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 | |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 | |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 | |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 | |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation | |
| H302 | Harmful if swallowed. | |
| H315 | Causes skin irritation. | |
| H319 | Causes serious eye irritation. | |
| H335 | May cause respiratory irritation. | |
| 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. | |

Safety Data Sheet applicable for regions

: GB - United Kingdom

SDS EU (REACH Annex II)

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.

5/11/2017 EN (English) 9/9



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 5/11/2017

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

1.1. Product identifier

Product form : Mixture

Product name : CMC-535™ Reagent 1 and 2

Product code : 093E_094E
Product group : Trade product

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Geno Technology, Inc./ G-Biosciences 9800 Page Avenue 63132-1429 Saint Louis - United States T 800-628-7730 - F 314-991-1504

technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)

| Country | Organisation/Company | Address | Emergency number | Comment |
|----------------|--|---|------------------|---------|
| United Kingdom | National Poisons Information Service (Belfast Centre) Royal Victoria Hospital | Grosvenor Road BT12 6BA Belfast | 0344 892 0111 | |
| United Kingdom | National Poisons Information Service (Birmingham Centre) City Hospital | Dudley Road B18 7QH Birmingham | 0344 892 0111 | |
| United Kingdom | National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital | Penarth CF64 2XX Cardiff | 0344 892 0111 | |
| United Kingdom | National Poisons Information Service Edinburgh Royal Infirmary of Edinburgh | Little France Crescent EH16 4SA Edinburgh | 0344 892 0111 | |
| United Kingdom | Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust | Avonley Road SE14 5ER London | +44 20 7188 7188 | |
| United Kingdom | National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit | Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle | 0344 892 0111 | |

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, Category 3 H412

Full text of H 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]

CLP Signal word : -

Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.

5/11/2017 EN (English) 1/9

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---------------------------------|--|------------|---|
| Deionized water | (CAS-No.) 7732-18-5 | >= 80 | Not classified |
| glycerol | (CAS-No.) 56-81-5 (EC-No.) 200-289-5 | < 10 | Not classified |
| Sodium Chloride(NaCl) | (CAS-No.) 7647-14-5 (EC-No.) 231-598-3 | < 2.922 | Not classified |
| tris(hydroxymethyl)aminomethane | (CAS-No.) 77-86-1 (EC-No.) 201-064-4 | < 1.2114 | Not classified |
| polyoxyethylene(23)lauryl ether | (CAS-No.) 9002-92-0 | < 1.19954 | Not classified |
| edetic acid | (CAS-No.) 60-00-4 (EC-No.) 200-449-4 (EC Index-No.) 607-429-00-8 | < 0.29224 | Eye Irrit. 2, H319 |
| DTT [1M](15.4mg) | (CAS-No.) 27565-41-9 (EC-No.) 248-531-9 | < 0.154253 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 |
| MAGNESIUM ACETATE | (CAS-No.) 142-72-3 (EC-No.) 205-554-9 | < 0.142394 | Not classified |
| Potassium Phosphate (Monobasic) | (CAS-No.) 7778-77-0 (EC-No.) 231-913-4 | < 0.1 | Not classified |
| copper(II) chloride,dihydrate | (CAS-No.) 10125-13-0 (EC-No.) 231-210-2 | < 0.1 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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. First-aid measures after eye contact : Rinse eyes with water as a precaution.

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

No additional information available

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.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

5/11/2017 2/9 EN (English)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

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".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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

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

Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

glycerol (56-81-5)

United Kingdom - Occupational Exposure Limits

WEL TWA (mg/m³) 10 mg/m³

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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 : No data available
Odour : No data available
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : Not applicable
Freezing point : No data available

5/11/2017 EN (English) 3/9

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| 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 | : No data available |
| Solubility | : No data available |
| 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

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

Hazardous decomposition products.

SECTION 11: Toxicological information

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

| glycerol (56-81-5) | |
|----------------------------|--|
| LD50 oral rat | 27200 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Female, Experimental value, Oral) |
| LD50 dermal | 56750 mg/kg (4 day(s), Guinea pig, Male / female, Experimental value, Dermal, 14 day(s)) |
| LC50 inhalation rat (mg/l) | > 2.75 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Converted value, Inhalation (vapours)) |

| edetic acid (60-00-4) | |
|-----------------------|--|
| | 4500 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) |

| Sodium Chloride(NaCl) (7647-14-5) | |
|-----------------------------------|--|
| LD50 oral rat | > 3980 mg/kg bodyweight (Rat, Experimental value, 20% aqueous solution, Oral) |
| LD50 dermal rabbit | > 10000 mg/kg (Rabbit, Experimental value, Dermal) |
| LC50 inhalation rat (mg/l) | > 42 mg/l air (1 h, Rat, Male, Experimental value, 20% aqueous solution, Inhalation (aerosol)) |

| tris(hydroxymethyl)aminomethane (77-86-1) | | |
|---|---------------|--|
| | LD50 oral rat | > 5000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s)) |

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| LD50 dermal rat | > 5000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, |
|-----------------|---|
| | Experimental value, Dermal) |

| Potassium Phosphate (Monobasic) (7778-77-0) | | |
|---|-------------------------------|--|
| | | |
| LD50 oral rat | 7100 mg/kg (Rat, Oral) | |
| LD50 dermal rabbit | > 4640 mg/kg (Rabbit, Dermal) | |
| Skin corrosion/irritation | : Not classified | |
| Serious eye damage/irritation | : Not classified | |
| Respiratory or skin sensitisation | : Not classified | |
| Germ cell mutagenicity | : Not classified | |
| Carcinogenicity | : Not classified | |
| Reproductive toxicity | : Not classified | |
| STOT-single exposure | : Not classified | |
| STOT-repeated exposure | : Not classified | |
| Aspiration hazard | : Not classified | |

SECTION 12: Ecological information

| 12.1 | | |
|------|--|--|
| | | |
| | | |
| | | |

Ecology - general : Harmful to aquatic life with long lasting effects.

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

| glycerol (56-81-5) | |
|--------------------|--|
| LC50 fish 1 | 54000 mg/l (96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Lethal) |
| EC50 Daphnia 1 | > 10000 mg/l (24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect) |

| edetic acid (60-00-4) | |
|-----------------------|---|
| LC50 fish 1 | 159 mg/l (US EPA, 96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Nominal concentration) |
| EC50 Daphnia 1 | 140 mg/l (DIN 38412-11, 48 h, Daphnia magna, Static system, Fresh water, Read-across, Locomotor effect) |
| ErC50 (algae) | > 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Weight of evidence, GLP) |

| Sodium Chloride(NaCl) (7647-14-5) | |
|-----------------------------------|---|
| LC50 fish 1 | 5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value) |

| tris(hydroxymethyl)aminomethane (77-86-1) | |
|---|--|
| EC50 Daphnia 1 | > 980 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP) |
| EC50 72h algae (1) | 397 mg/l (Equivalent or similar to OECD 201, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate) |

| Potassium Phosphate (Monobasic) (7778-77-0) | |
|---|---|
| LC50 fish 1 > 900 mg/l (48 h, Leuciscus idus) | |
| 12.2. Persistence and degradability | |
| MAGNESIUM ACETATE (142-72-3) | |
| Persistence and degradability | Biodegradability in water: no data available. |

| glycerol (56-81-5) | |
|-------------------------------|---------------------------------|
| Persistence and degradability | Readily biodegradable in water. |

5/11/2017 EN (English) 5/9

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| Biochemical oxygen demand (BOD) | 0.87 g O₂/g substance |
|---------------------------------|-------------------------------------|
| Chemical oxygen demand (COD) | 1.16 g O ₂ /g substance |
| ThOD | 1.217 g O ₂ /g substance |
| BOD (% of ThOD) | 0.71 |

| polyoxyethylene(23)lauryl ether (9002-92-0) | |
|---|---------------------------|
| Persistence and degradability | Inherently biodegradable. |

| DTT [1M](15.4mg) (27565-41-9) | |
|-------------------------------|---|
| Persistence and degradability | Biodegradability in water: no data available. |

| edetic acid (60-00-4) | |
|---------------------------------|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.01 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 0.85 g O ₂ /g substance |
| ThOD | 1.09 g O ₂ /g substance |
| BOD (% of ThOD) | 0.0091 |

| Sodium Chloride(NaCl) (7647-14-5) | |
|-----------------------------------|-----------------------------------|
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

| tris(hydroxymethyl)aminomethane (77-86-1) | |
|---|---------------------------------|
| Persistence and degradability | Readily biodegradable in water. |

| copper(II) chloride,dihydrate (10125-13-0) | |
|--|---|
| Persistence and degradability | Biodegradability in soil: not applicable. Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

| Potassium Phosphate (Monobasic) (7778-77-0) | |
|---|------------------------------------|
| Persistence and degradability | Biodegradability: not applicable. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |
| 12.3. Bioaccumulative potential | |
| MAGNESIUM ACETATE (142-72-3) | |
| Bioaccumulative potential | No bioaccumulation data available. |

| glycerol (56-81-5) | |
|---------------------------|--|
| Log Pow | -1.75 (Experimental value, Equivalent or similar to OECD 107, 25 °C) |
| Bioaccumulative potential | Not bioaccumulative. |

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| 355 and 5 105 and 5 105 105 105 105 105 105 105 105 105 1 | |
|---|------------------------------------|
| polyoxyethylene(23)lauryl ether (9002-92-0) | |
| Bioaccumulative potential | No bioaccumulation data available. |

| DTT [1M](15.4mg) (27565-41-9) | |
|-------------------------------|------------------------------------|
| Bioaccumulative potential | No bioaccumulation data available. |

| edetic acid (60-00-4) | |
|---------------------------|--|
| BCF fish 1 | 1.1 - 1.8 (28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Readacross, Fresh weight) |
| Log Pow | 0.13 (Weight of evidence approach) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| Sodium Chloride(NaCl) (7647-14-5) | |
|-----------------------------------|----------------------|
| Log Pow | -3 (Calculated) |
| Bioaccumulative potential | Not bioaccumulative. |

| tris(hydroxymethyl)aminomethane (77-86-1) | |
|---|--|
| Log Pow | -2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 $^{\circ}\text{C})$ |
| Bioaccumulative potential | Not bioaccumulative. |

| copper(II) chloride,dihydrate (10125-13-0) | |
|--|--|
| BCF fish 1 | 290 (Pimephales promelas, Copper ion) |
| BCF other aquatic organisms 1 | 17700 (Corbicula sp., Copper ion) |
| BCF other aquatic organisms 2 | 471 (148 h, Daphnia magna, Anhydrous form) |
| Bioaccumulative potential | Bioaccumable. |

| Potassium Phosphate (Monobasic) (7778-77-0) | |
|---|---|
| Bioaccumulative potential | No bioaccumulation data available. |
| 12.4. Mobility in soil | |
| glycerol (56-81-5) | |
| Surface tension | 0.0634 N/m (20 °C, 1000 g/l) |
| Ecology - soil | No (test)data on mobility of the substance available. |

| edetic acid (60-00-4) | |
|-----------------------|--|
| Log Koc | 2.495 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Low potential for adsorption in soil. |

| Sodium Chloride(NaCl) (7647-14-5) | |
|-----------------------------------|---|
| Surface tension | 73.03 mN/m (23 °C, 14.5 g/l) |
| Ecology - soil | No (test)data on mobility of the substance available. |

| tris(hydroxymethyl)aminomethane (77-86-1) | |
|---|------------------------|
| Log Koc | 1.87 (log Koc, QSAR) |
| Ecology - soil | Highly mobile in soil. |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| 12.5. Results of PBT and vPvB assessment | |
|---|--|
| Component | |
| glycerol (56-81-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| edetic acid (60-00-4) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| Sodium Chloride(NaCl) (7647-14-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| tris(hydroxymethyl)aminomethane (77-86-1) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Waste treatment methods.

| SECTIO | N 14: Trans | nort inf | format | ion |
|---------------|--------------|----------|--------|------|
| JECTIO | iv it. Hallo | | Ullila | IUII |

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

| 14.1. UN number | |
|-----------------|------------------|
| UN-No. (ADR) | : Not applicable |
| UN-No. (IMDG) | : Not regulated |
| UN-No. (IATA) | : Not regulated |
| UN-No. (ADN) | : Not applicable |
| UN-No. (RID) | : Not applicable |

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not regulated

IATA

Transport hazard class(es) (IATA) : Not regulated

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not regulated

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| 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. |

Safety Data Sheet applicable for regions

: GB - United Kingdom

SDS EU (REACH Annex II)

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.

5/11/2017 EN (English) 9/9