



D-Gluconate Acid/D-Glucono- δ -lactone Assay Kit

Kit Safety Information Sheet (SIS)

Issue date (US): 12/8/2017 Revision date (US): 4/12/2022 Supersedes (US): 1/23/2020 Version (US): 1.2

SECTION 1: Kit identification

1.1 Kit identifier

Product name : D-Gluconate Acid/D-Glucono- δ -lactone Assay Kit
Product code : K-GATE

1.2 Details of the supplier of the Kit safety information sheet

Megazyme
Bray Business Park
A98 YV29 Bray - Ireland
T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

SECTION 2: General information

This product is a Kit which consists of several independently packaged components
This Kit should be handled in accordance with good laboratory practices and appropriate personal protective equipment should be used

SECTION 3: Kit contents

| Name | General description | Weight or Volume | Quantity | Unit | GHS US classification |
|---|---------------------|------------------|----------|--------------|-----------------------|
| D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 1) | Buffer | | 1 | pcs (pieces) | Eye Irrit. 2, H319 |
| D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 2) | Reagent | | 1 | pcs (pieces) | Not classified |
| D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 3) | Reagent | | 1 | pcs (pieces) | Not classified |
| D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 4) | Reagent | | 1 | pcs (pieces) | Not classified |
| D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 5) | Reagent | | 1 | pcs (pieces) | Not classified |

SECTION 4: General advice

No data available

SECTION 5: Safe handling advice

Environmental precautions : Avoid release to the environment
Storage conditions : Store in a well-ventilated place.
Keep cool.
Precautions for safe handling : Ensure good ventilation of the work station
Wear personal protective equipment

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SECTION 6: First aid measures

| | |
|---------------------------------------|--|
| First-aid measures after eye contact | : Rinse eyes with water as a precaution |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell |
| 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 |
| Other medical advice or treatment | : Treat symptomatically |

SECTION 7: Fire fighting measures

| | |
|--|---|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment Self-contained breathing apparatus Complete protective clothing |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released |

SECTION 8: Transport information

In accordance with DOT / TDG / IMDG / IATA

8.1. UN number

Not regulated for transport

8.2. UN proper shipping name

| | |
|-----------------------------|------------------|
| Proper Shipping Name (DOT) | : Not applicable |
| Proper Shipping Name (TDG) | : Not applicable |
| Proper Shipping Name (IMDG) | : Not applicable |
| Proper Shipping Name (IATA) | : Not applicable |

8.3. Transport hazard class(es)

DOT

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

TDG

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

IMDG

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

IATA

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

8.4. Packing group

| | |
|----------------------|------------------|
| Packing group (DOT) | : Not applicable |
| Packing group (TDG) | : Not applicable |
| Packing group (IMDG) | : Not applicable |
| Packing group (IATA) | : Not applicable |

8.5. Environmental hazards

Other information : No supplementary information available.

8.6. Special precautions for user

DOT

No data available

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TDG

No data available

IMDG

No data available

IATA

No data available

8.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 9: Other information

No data available





D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 1)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 12/8/2017 Revision date: 3/11/2022 Supersedes: 12/8/2017 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 1)
Product code : K-GATE (Bottle 1)

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Use as laboratory reagent

1.3. Supplier

Megazyme
Bray Business Park
Bray, County Wicklow, A98 YV29
Ireland
T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Serious eye damage/eye irritation Category 2

Causes serious eye irritation

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Warning

Hazard statements (GHS US) :

Causes serious eye irritation

Precautionary statements (GHS US) :

Wash hands thoroughly after handling.

Wear eye protection, protective clothing, protective gloves

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Common Name (Synonyms) | Product identifier | % | GHS US classification |
|--------------------|--|--------------------|---------|--|
| triethanolamine | 2,2',2''-nitrilotriethanol / 2,2',2''-nitrilotris(ethanol) / 2,2',2''-trihydroxytriethylamine / daltogen / ethanol, 2,2',2''-nitrilotri- / ethanol, 2,2',2''-nitrilotris- / nitrilo-2,2',2''-triethanol / sterolamide / sting-kill / TEA (=triethanolamine) / thiofaco T-35 / tri(2-hydroxyethyl)amine / triethanolamine-NG / triethylamine / trihydroxyethylamine / trihydroxytriethylamine / tris(2-hydroxyethyl)amine / tris(hydroxyethyl)amine / trolamine | CAS-No.: 102-71-6 | 10 – 20 | Not classified |
| MAGNESIUM CHLORIDE | Magnesium chloride anhydrous / Magnesium dichloride / Magnesium chloride, anhydrous / MAGNESIUM CHLORIDE / Magnesium chloride (MgCl ₂) | CAS-No.: 7786-30-3 | 1 – 5 | Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 |

Full text of hazard classes and H-statements : see section 16

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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 cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |

4.2. Most important symptoms and effects (acute and delayed)

| | |
|------------------------------------|-------------------|
| Symptoms/effects after eye contact | : Eye irritation. |
|------------------------------------|-------------------|

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
|------------------------------|--|

5.2. Specific hazards arising from the chemical

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

5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|--|
| 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. Avoid contact with skin and eyes. |
|----------------------|--|

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.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. 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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 1)

No additional information available

triethanolamine (102-71-6)

USA - ACGIH - Occupational Exposure Limits

| | |
|----------------|---|
| Local name | Triethanolamine |
| ACGIH OEL TWA | 5 mg/m ³ (Triethanolamine; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value) |
| Remark (ACGIH) | Eye & skin irr |

MAGNESIUM CHLORIDE (7786-30-3)

No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

| Type | Material | Permeation | Thickness (mm) | Penetration |
|-------------------|----------------------|------------------|----------------|-------------|
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) |

Eye protection:

Safety glasses

| Type | Field of application | Characteristics |
|----------------|----------------------|-------------------|
| Safety glasses | Droplet | With side shields |

Skin and body protection:

Wear suitable protective clothing

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| |
|--|
| Type |
| Lab coat |
| Respiratory protection: |
| In case of insufficient ventilation, wear suitable respiratory equipment |

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Liquid |
| Color | : Mixture contains one or more component(s) which have the following colour(s): Colourless to light yellow On exposure to air: brown Colourless to white-grey |
| Odor | : There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Mild odour Ammonia odour Odourless |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Not applicable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : 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.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

triethanolamine (102-71-6)

| | |
|-----------------------------------|---|
| LD50 oral rat | > 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 6400 mg/kg bodyweight; Rat) |
| LD50 oral | 8000 mg/kg body weight |
| LD50 dermal rat | > 5000 mg/kg (Rat) |
| LD50 dermal rabbit | > 10000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; >2000 mg/kg bodyweight; Rabbit) |
| LD50 dermal | > 10000 mg/kg body weight |
| LC50 Inhalation - Rat (Dust/Mist) | > 1.8 mg/l |
| ATE US (oral) | 8000 mg/kg body weight |

MAGNESIUM CHLORIDE (7786-30-3)

| | |
|---------------|------------------------|
| LD50 oral rat | 2800 mg/kg |
| LD50 oral | 2800 mg/kg body weight |
| ATE US (oral) | 500 mg/kg body weight |

Skin corrosion/irritation : Not classified

triethanolamine (102-71-6)

| | |
|----|-----------|
| pH | 11 (25 %) |
|----|-----------|

MAGNESIUM CHLORIDE (7786-30-3)

| | |
|----|-----------------|
| pH | 5 – 6.5 (2.5 %) |
|----|-----------------|

Serious eye damage/irritation : Causes serious eye irritation.

triethanolamine (102-71-6)

| | |
|----|-----------|
| pH | 11 (25 %) |
|----|-----------|

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| MAGNESIUM CHLORIDE (7786-30-3) | |
|---------------------------------------|---------------------------|
| pH | 5 – 6.5 (2.5 %) |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| triethanolamine (102-71-6) | |
| IARC group | 3 - Not classifiable |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Viscosity, kinematic | : No data available |
| triethanolamine (102-71-6) | |
| Viscosity, kinematic | 53.381 mm ² /s |
| Symptoms/effects after eye contact | : Eye irritation. |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

| triethanolamine (102-71-6) | |
|---------------------------------------|---|
| LC50 - Fish [1] | 11800 mg/l |
| EC50 - Other aquatic organisms [1] | 2038 mg/l waterflea |
| LC50 - Fish [2] | 450 – 1000 mg/l (LC50; 96 h; <i>Lepomis macrochirus</i>) |
| EC50 - Other aquatic organisms [2] | 216 mg/l |
| MAGNESIUM CHLORIDE (7786-30-3) | |
| LC50 - Fish [1] | 1970 – 3880 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static]) |
| EC50 - Crustacea [1] | 140 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i> [Static]) |
| EC50 - Other aquatic organisms [1] | 548.4 mg/l waterflea |
| EC50 - Other aquatic organisms [2] | > 100 mg/l |
| EC50 72h - Algae [1] | 2200 mg/l (Species: <i>Desmodesmus subspicatus</i>) |

12.2. Persistence and degradability

| triethanolamine (102-71-6) | |
|-----------------------------------|--|
| Persistence and degradability | Photolysis in the air. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.02 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.5 g O ₂ /g substance |
| ThOD | 2.04 g O ₂ /g substance |
| BOD (% of ThOD) | 0.02 % ThOD |

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| MAGNESIUM CHLORIDE (7786-30-3) | |
|---------------------------------------|-----------------------------------|
| Persistence and degradability | Biodegradability: not applicable. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |

12.3. Bioaccumulative potential

| triethanolamine (102-71-6) | |
|---|---|
| BCF - Fish [1] | < 3.9 (Cyprinus carpio; TEST DURATION: 6 WEEKS) |
| Partition coefficient n-octanol/water (Log Pow) | -2.53 – -1.32 |
| Bioaccumulative potential | Bioaccumulation unlikely. |

| MAGNESIUM CHLORIDE (7786-30-3) | |
|---------------------------------------|------------------------------------|
| Bioaccumulative potential | No bioaccumulation data available. |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available



SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No : Not applicable
UN-No. (TDG) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

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

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

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IMDG

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

IATA

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

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

Not applicable

TDG

Not applicable

IMDG

Not applicable

IATA

Not applicable



14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

| Name | CAS-No. | Listing | Commercial status | Flags |
|--------------------|-----------|---------|-------------------|-------|
| triethanolamine | 102-71-6 | Present | Active | |
| MAGNESIUM CHLORIDE | 7786-30-3 | Present | Active | |

15.2. International regulations

CANADA

MAGNESIUM CHLORIDE (7786-30-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

MAGNESIUM CHLORIDE (7786-30-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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National regulations

MAGNESIUM CHLORIDE (7786-30-3)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

| Component | State or local regulations |
|---------------------------|--|
| triethanolamine(102-71-6) | U.S. - New Jersey - Right to Know Hazardous Substance List |

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 3/11/2022

Safety Data Sheet (SDS), USA

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.





D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 2)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 12/8/2017 Revision date: 3/11/2022 Supersedes: 1/23/2020 Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 2)
Product code : K-GATE (Bottle 2)

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Use as laboratory reagent

1.3. Supplier

Megazyme
Bray Business Park
Bray, County Wicklow, A98 YV29
Ireland
T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

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 HazCom 2012

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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/doctor/physician if you feel unwell. |

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|------------------------------|----------------------------------|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. |
|------------------------------|----------------------------------|

5.2. Specific hazards arising from the chemical

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

5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|--|
| 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 | : Mechanically recover the product. |
| 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.

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 2)

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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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 2)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

| Type | Material | Permeation | Thickness (mm) | Penetration |
|-------------------|----------------------|------------------|----------------|-------------|
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) |

Eye protection:

Safety glasses

| Type | Field of application | Characteristics |
|----------------|----------------------|-------------------|
| Safety glasses | Dust | With side shields |

Skin and body protection:

Wear suitable protective clothing

Type

Lab coat

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 2)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Solid |
| Color | : No data available |
| Odor | : No data available |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : No data available |
| Freezing point | : Not applicable |
| Boiling point | : No data available |
| Flash point | : Not applicable |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Non flammable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : Not applicable |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : Not applicable |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : Not applicable |
| Viscosity, dynamic | : No data available |
| Explosion limits | : Not applicable |
| Explosive properties | : No data available |
| Oxidizing properties | : 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

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

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 2)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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 sensitization | : 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 |
| Viscosity, kinematic | : Not applicable |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

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

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

| | |
|---------------|------------------|
| DOT NA No | : Not applicable |
| UN-No. (TDG) | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 2)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

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

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

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

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

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
Not applicable

TDG
Not applicable

IMDG
Not applicable

IATA
Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

| Name | CAS-No. | Listing | Commercial status | Flags |
|---|---------|-------------|-------------------|-------|
| D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 2) | | Not present | - | |

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 2)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 3/11/2022

Safety Data Sheet (SDS), USA

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.





D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 3)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 12/8/2017 Revision date: 3/11/2022 Supersedes: 12/8/2017 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 3)
Product code : K-GATE (Bottle 3)

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Use as laboratory reagent

1.3. Supplier

Megazyme
Bray Business Park
Bray, County Wicklow, A98 YV29
Ireland
T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

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 HazCom 2012

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 3)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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/doctor/physician if you feel unwell. |

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
|------------------------------|--|

5.2. Specific hazards arising from the chemical

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

5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|--|
| 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.

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 3)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 3)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

| Type | Material | Permeation | Thickness (mm) | Penetration |
|-------------------|----------------------|------------------|----------------|-------------|
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) |

Eye protection:

Safety glasses

| Type | Field of application | Characteristics |
|----------------|----------------------|-------------------|
| Safety glasses | Droplet | With side shields |

Skin and body protection:

Wear suitable protective clothing

Type

Lab coat

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 3)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Liquid |
| Color | : Colorless |
| Odor | : Mixture contains one or more component(s) which have the following odour: |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : 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

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

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 3)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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 sensitization | : 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 |
| Viscosity, kinematic | : No data available |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

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

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

| | |
|---------------|------------------|
| DOT NA No | : Not applicable |
| UN-No. (TDG) | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 3)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

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

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

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

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

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
Not applicable

TDG
Not applicable

IMDG
Not applicable

IATA
Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):
No data available

15.2. International regulations

CANADA

No additional information available

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 3)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 3/11/2022

Safety Data Sheet (SDS), USA

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.





D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 4)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 12/8/2017 Revision date: 3/11/2022 Supersedes: 12/8/2017 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 4)
Product code : K-GATE (Bottle 4)

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Use as laboratory reagent

1.3. Supplier

Megazyme
Bray Business Park
Bray, County Wicklow, A98 YV29
Ireland
T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

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 HazCom 2012

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 4)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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/doctor/physician if you feel unwell. |

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
|------------------------------|--|

5.2. Specific hazards arising from the chemical

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

5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|--|
| 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.

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 4)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 4)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

| Type | Material | Permeation | Thickness (mm) | Penetration |
|-------------------|----------------------|------------------|----------------|-------------|
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) |

Eye protection:

Safety glasses

| Type | Field of application | Characteristics |
|----------------|----------------------|-------------------|
| Safety glasses | Droplet | With side shields |

Skin and body protection:

Wear suitable protective clothing

Type

Lab coat

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 4)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Liquid |
| Color | : Colorless |
| Odor | : Mixture contains one or more component(s) which have the following odour: |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Not applicable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : 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

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

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 4)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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 sensitization | : 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 |
| Viscosity, kinematic | : No data available |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

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

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

| | |
|---------------|------------------|
| DOT NA No | : Not applicable |
| UN-No. (TDG) | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |

D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 4)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

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

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

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

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

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
Not applicable

TDG
Not applicable

IMDG
Not applicable

IATA
Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):
No data available

15.2. International regulations

CANADA

No additional information available

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EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

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Revision date : 3/11/2022

Safety Data Sheet (SDS), USA

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.





D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 5)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 1/17/2018 Revision date: 3/11/2022 Supersedes: 1/17/2018 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 5)
Product code : K-GATE (Bottle 5)

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Use as laboratory reagent

1.3. Supplier

Megazyme
Bray Business Park
Bray, County Wicklow, A98 YV29
Ireland
T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

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 HazCom 2012

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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/doctor/physician if you feel unwell. |

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|------------------------------|----------------------------------|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. |
|------------------------------|----------------------------------|

5.2. Specific hazards arising from the chemical

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

5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|--|
| 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 | : Mechanically recover the product. |
| 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.

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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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

| | | | | |
|--|-----------------------------|-------------------|------------------------|--------------------|
| Hand protection: | | | | |
| Protective gloves | | | | |
| Type | Material | Permeation | Thickness (mm) | Penetration |
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) |
| Eye protection: | | | | |
| Safety glasses | | | | |
| Type | Field of application | | Characteristics | |
| Safety glasses | Dust | | With side shields | |
| Skin and body protection: | | | | |
| Wear suitable protective clothing | | | | |
| Type | | | | |
| Lab coat | | | | |
| Respiratory protection: | | | | |
| In case of insufficient ventilation, wear suitable respiratory equipment | | | | |

Personal protective equipment symbol(s):



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Solid |
| Color | : No data available |
| Odor | : No data available |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : No data available |
| Freezing point | : Not applicable |
| Boiling point | : No data available |
| Flash point | : Not applicable |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Non flammable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : Not applicable |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : Not applicable |
| Viscosity, dynamic | : No data available |
| Explosion limits | : Not applicable |
| Explosive properties | : No data available |
| Oxidizing properties | : 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

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

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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 sensitization | : 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 |
| Viscosity, kinematic | : Not applicable |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

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

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

| | |
|---------------|------------------|
| DOT NA No | : Not applicable |
| UN-No. (TDG) | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |

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14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

DOT

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

TDG

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

IMDG

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

IATA

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

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

Not applicable

TDG

Not applicable

IMDG

Not applicable

IATA

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

| Name | CAS-No. | Listing | Commercial status | Flags |
|---|---------|-------------|-------------------|-------|
| D-Gluconate/D-Glucono- δ -lactone Assay Kit (Bottle 5) | | Not present | - | |

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15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

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