

Maltose/Sucrose/D-Glucose Assay Kit

Kit Safety Information Sheet

Date of issue: 05/06/2013 Revision date: 20/12/2017 Supersedes: 02/03/2017 Version: 1.3

SECTION 1: Kit identification

1.1. Kit identifier

Product name : Maltose/Sucrose/D-Glucose Assay Kit

Product code : K-MASUG

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 | Quantity | Unit | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---------------------|----------|--------------|--|
| Maltose/Sucrose/D-Glucose Assay Kit (Bottle 1) | Buffer | 1 | pcs (pieces) | Skin Corr. 1C, H314 Repr. 1B, H360 |
| Maltose/Sucrose/D-Glucose Assav Kit (Bottle 5) | Reagent | 1 | pcs (pieces) | Resp. Sens. 1, H334 |

No substance or mixture included in the following Kit components is hazardous according to Regulation (EC) No. 1272/2008 [CLP] and therefore the requirements of Regulation (EU) 2015/830 do not apply

| Name | General description | Quantity | Unit |
|---|---------------------|----------|--------------|
| Maltose/Sucrose/D-Glucose Assay Kit (Bottle 2) | Reagent | 1 | pcs (pieces) |
| Maltose/Sucrose/D-Glucose Assay Kit (Bottle 3) | Reagent | 1 | pcs (pieces) |
| Maltose/Sucrose/D-Glucose Assay Kit (Bottle 4) | Reagent | 1 | pcs (pieces) |
| Maltose/Sucrose/D-Glucose Assay Kit (Bottle 6) | Reagent | 1 | pcs (pieces) |

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

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 or a doctor 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

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Maltose/Sucrose/D-Glucose Assay Kit

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Protection during firefighting : Do not attempt to take action without suitable protective equipment

Self-contained breathing apparatus Complete protective clothing

: Toxic fumes may be released

Hazardous decomposition products in case of

fire

SECTION 8: Other information

No data available

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Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 05/06/2013 Revision date: 21/12/2017 Supersedes: 02/03/2017 Version: 1.3

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

1.1. Product identifier

Product form : Mixture

Product name : Maltose/Sucrose/D-Glucose Assay Kit (Bottle 6)

Product code : K-MASUG (Bottle 6)

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
Use of the substance/mixture : Use as laboratory reagent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Megazyme Bray Business Park A98 YV29 Bray - Ireland T +353 12861220 - F +353

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: 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]

EUH-statements : EUH032 - Contact with acids liberates very toxic gas.

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

No labelling required

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

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according to Regulation (EU) 2015/830

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

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

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of

: Toxic fumes may be released.

Advice for firefighters 5.3.

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

Personal precautions, protective equipment and emergency procedures

611 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.

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.

Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

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

7.2. Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

Control parameters

No additional information available

8.2. **Exposure controls**

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

| Туре | Material | Permeation | Thickness (mm) | Penetration | Standard |
|-------------------|----------------------|------------------|----------------|-------------|----------|
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) | EN 374-2 |

Eye protection:

Safety glasses

| Туре | Use | Characteristics | Standard |
|----------------|---------|-------------------|----------|
| Safety glasses | Droplet | With side shields | EN 166 |

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according to Regulation (EU) 2015/830

Skin and body protection:

Wear suitable protective clothing

| Туре | Standard |
|----------|----------|
| Lab coat | |

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

| Device | Filter type | Condition | Standard |
|-----------|-------------|---------------------------------|----------------|
| Dust mask | Type P1 | Protection for Liquid particles | EN 143, EN 149 |







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 : None.

Odour threshold : No data available : No data available Relative evaporation rate (butylacetate=1) : No data available Melting point : Not applicable Freezing point : No data available 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 Solubility : Soluble in water. : No data available Log Pow Viscosity, kinematic No data available

Explosive limits :

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Viscosity, dynamic

Explosive properties Oxidising properties

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

No data availableNo data available

: No data available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

10.4. Conditions to avoid

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

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10.5. Incompatible materials

Acids.

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

: Not classified Acute toxicity (oral) : Not classified Acute toxicity (dermal) Acute toxicity (inhalation) : Not classified : Not classified Skin corrosion/irritation : Not classified Serious eye damage/irritation 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

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

SECTION 14: Transport information

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

| ADR | IATA |
|----------------------------------|----------------|
| 14.1. UN number | |
| Not applicable | Not applicable |
| 14.2. UN proper shipping name | |
| Not applicable | Not applicable |
| 14.3. Transport hazard class(es) | |
| Not applicable | Not applicable |
| 14.4. Packing group | |
| Not applicable | Not applicable |
| 14.5. Environmental hazards | |
| Not applicable | Not applicable |

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ADR IATA

No supplementary information available

14.6. Special precautions for user

- Overland transport

Not applicable

- Air 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

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:

| EUH032 | Contact with acids liberates very toxic gas. |
|--------|--|

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.

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Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 05/06/2013 Revision date: 24/01/2018 Supersedes: 02/03/2017 Version: 1.3

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

1.1. Product identifier

Product form : Mixture

Product name : Maltose/Sucrose/D-Glucose Assay Kit (Bottle 5)

Product code : K-MASUG (Bottle 5)

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
Use of the substance/mixture : Use as laboratory reagent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Megazyme Bray Business Park A98 YV29 Bray - 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: Hazards identification

2.1. Classification of the substance or mixture

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

Respiratory sensitisation, Category 1 H334

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) : Danger

Hazardous ingredients : Glucosidase (alpha), maltase

Hazard statements (CLP) : H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements (CLP) : P261 - Avoid breathing dust.

P284 - [In case of inadequate ventilation] wear respiratory protection.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER. P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

Hazard pictograms (CLP) :



GHS08

Hazardous ingredients : Glucosidase (alpha), maltase

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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] |
|------------------------------|---|-------|---|
| Glucosidase (alpha), maltase | (CAS-No.) 9001-42-7 (EC-No.) 232-604-7 | 1 - 5 | Resp. Sens. 1, H334 |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory

symptoms: Call a poison center or a doctor.

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

Symptoms/effects after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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.

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.

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 breathing dust.

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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Safety Data Sheet

according to Regulation (EU) 2015/830

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. Avoid

breathing dust.

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

| Туре | Material | Permeation | Thickness (mm) | Penetration | Standard |
|-------------------|----------------------|------------------|----------------|-------------|----------|
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) | EN 374-2 |

Eye protection:

Safety glasses

| Туре | Use | Characteristics | Standard |
|----------------|------|-------------------|----------|
| Safety glasses | Dust | With side shields | EN 166 |

Skin and body protection:

Wear suitable protective clothing

| Туре | Standard |
|----------|----------|
| Lab coat | |

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

| Device | Filter type | Condition | Standard |
|-----------|-------------|--------------------------------|----------------|
| Dust mask | Type P1 | Protection for Solid particles | EN 143, EN 149 |



Physical state





Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Colour : No data available

: Solid

Odour : None.

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

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Freezing point : Not applicable : No data available Boiling point Flash point : Not applicable : Not applicable Auto-ignition temperature Decomposition temperature : No data available Flammability (solid, gas) Non flammable. Vapour pressure No data available Relative vapour density at 20 °C : No data available Relative density : Not applicable Solubility Soluble in water. Log Pow : No data available Viscosity, kinematic : Not applicable Viscosity, dynamic : No data available Explosive properties : No data available Oxidising properties : No data available : Not applicable **Explosive limits**

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.

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 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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. 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

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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

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

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

SECTION 14: Transport information

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

| ADR | IATA | | |
|--|----------------|--|--|
| 14.1. UN number | | | |
| Not applicable | Not applicable | | |
| 14.2. UN proper shipping name | | | |
| Not applicable | Not applicable | | |
| 14.3. Transport hazard class(es) | | | |
| Not applicable | Not applicable | | |
| 14.4. Packing group | | | |
| Not applicable | Not applicable | | |
| 14.5. Environmental hazards | | | |
| Not applicable | Not applicable | | |
| No supplementary information available | | | |

14.6. Special precautions for user

- Overland transport

Not applicable

- Air 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

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:

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| Resp. Sens. 1 | Respiratory sensitisation, Category 1 |
|---------------|--|
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |

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.

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Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 05/06/2013 Revision date: 24/01/2018 Supersedes: 02/03/2017 Version: 1.3

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

1.1. Product identifier

Product form : Mixture

Product name : Maltose/Sucrose/D-Glucose Assay Kit (Bottle 4)

Product code : K-MASUG (Bottle 4)

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
Use of the substance/mixture : Use as laboratory reagent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Megazyme Bray Business Park A98 YV29 Bray - 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: 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]

EUH-statements : EUH208 - Contains Fructofuranosidase, β-, exo-Inulinase. May produce an allergic reaction.

EUH210 - Safety data sheet available on request.

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

No labelling required

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 general : Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory

symptoms: Call a poison center or a doctor.

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.

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according to Regulation (EU) 2015/830

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of

: Toxic fumes may be released.

fire

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. Avoid breathing dust.

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.

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. Avoid

breathing dust.

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

| Туре | Material | Permeation | Thickness (mm) | Penetration | Standard |
|-------------------|----------------------|------------------|----------------|-------------|----------|
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) | EN 374-2 |

Eye protection:

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according to Regulation (EU) 2015/830

Safety glasses

| Туре | Use | Characteristics | Standard |
|----------------|------|-------------------|----------|
| Safety glasses | Dust | With side shields | EN 166 |

Skin and body protection:

Wear suitable protective clothing

| Туре | Standard |
|----------|----------|
| Lab coat | |

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

| Device | Filter type | Condition | Standard |
|-----------|-------------|--------------------------------|----------------|
| Dust mask | Type P1 | Protection for Solid particles | EN 143, EN 149 |







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 : Solid

Colour : No data available

Odour : None.

Odour threshold : No data available No data available Relative evaporation rate (butylacetate=1) : No data available Melting point : No data available Freezing point : Not applicable Boiling point : No data available Flash point : Not applicable Auto-ignition temperature : Not applicable No data available Decomposition temperature Flammability (solid, gas) Non flammable. Vapour pressure : No data available Relative vapour density at 20 °C : No data available Relative density Not applicable Solubility : Soluble in water. Log Pow : No data available Viscosity, kinematic : Not applicable Viscosity, dynamic No data available Explosive properties No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Oxidising properties

Explosive limits

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

10.2. Chemical stability

Stable under normal conditions.

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: No data available

: Not applicable

Safety Data Sheet

according to Regulation (EU) 2015/830

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 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. 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

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

SECTION 14: Transport information

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

| ADR | IATA |
|-------------------------------|----------------|
| 14.1. UN number | |
| Not applicable | Not applicable |
| 14.2. UN proper shipping name | |
| Not applicable | Not applicable |

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Safety Data Sheet

according to Regulation (EU) 2015/830

| ADR | IATA | | |
|--|---------------------|--|--|
| 14.3. Transport hazard class(es) | | | |
| Not applicable | Not applicable | | |
| 14.4. Packing group | 14.4. Packing group | | |
| Not applicable | Not applicable | | |
| 14.5. Environmental hazards | | | |
| Not applicable | Not applicable | | |
| No supplementary information available | | | |

14.6. Special precautions for user

- Overland transport

Not applicable

- Air 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

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

| Tall tox of the data Lot relations. | | | |
|-------------------------------------|--------|--|--|
| | EUH208 | Contains . May produce an allergic reaction. | |
| | EUH210 | Safety data sheet available on request. | |

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.

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Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 05/06/2013 Revision date: 20/12/2017 Supersedes: 02/03/2017 Version: 1.3

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

1.1. Product identifier

Product form : Mixture

Product name : Maltose/Sucrose/D-Glucose Assay Kit (Bottle 3)

Product code : K-MASUG (Bottle 3)

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
Use of the substance/mixture : Use as laboratory reagent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Megazyme Bray Business Park A98 YV29 Bray - 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: 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]

EUH-statements : EUH208 - Contains Kinase (phosphorylating), hexo-, Hexokinase. May produce an allergic

reaction.

EUH210 - Safety data sheet available on request. EUH032 - Contact with acids liberates very toxic gas.

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

No labelling required

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 general : Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory

symptoms: Call a poison center or a doctor.

First-aid measures after skin contact : Wash skin with plenty of water.

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according to Regulation (EU) 2015/830

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

Symptoms/effects after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

: Toxic fumes may be released.

fire

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. Avoid breathing mist, spray, vapours.

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. Avoid

breathing mist, spray, vapours.

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

| Туре | Material | Permeation | Thickness (mm) | Penetration | Standard |
|-------------------|----------------------|------------------|----------------|-------------|----------|
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) | EN 374-2 |

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Safety Data Sheet

according to Regulation (EU) 2015/830

Eye protection:

Safety glasses

| Туре | Use | Characteristics | Standard |
|----------------|---------|-------------------|----------|
| Safety glasses | Droplet | With side shields | EN 166 |

Skin and body protection:

Wear suitable protective clothing

| Туре | Standard |
|----------|----------|
| Lab coat | |

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

| Device | Filter type | Condition | Standard |
|-----------|-------------|---------------------------------|----------------|
| Dust mask | Type P1 | Protection for Liquid particles | EN 143, EN 149 |







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 : None.

Odour threshold : No data available : No data available рΗ Relative evaporation rate (butylacetate=1) : No data available Melting point : Not applicable Freezing point : No data available : No data available Boiling point 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 Soluble in water. : No data available Log Pow : No data available Viscosity, kinematic Viscosity, dynamic : No data available : No data available Explosive properties Oxidising properties No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Explosive limits

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

10.2. Chemical stability

Stable under normal conditions.

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Safety Data Sheet

according to Regulation (EU) 2015/830

10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Acids.

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 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. 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

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

SECTION 14: Transport information

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

| ADR | IATA |
|-------------------------------|----------------|
| 14.1. UN number | |
| Not applicable | Not applicable |
| 14.2. UN proper shipping name | |
| Not applicable | Not applicable |

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Safety Data Sheet

according to Regulation (EU) 2015/830

| ADR | IATA | |
|--|----------------|--|
| 14.3. Transport hazard class(es) | | |
| Not applicable | Not applicable | |
| 14.4. Packing group | | |
| Not applicable | Not applicable | |
| 14.5. Environmental hazards | | |
| Not applicable | Not applicable | |
| No supplementary information available | | |

14.6. Special precautions for user

- Overland transport

Not applicable

- Air 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

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:

| EUH032 | Contact with acids liberates very toxic gas. | |
|--------|--|--|
| EUH208 | Contains . May produce an allergic reaction. | |
| EUH210 | Safety data sheet available on request. | |

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.

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Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 05/06/2013 Revision date: 20/12/2017 Supersedes: 02/03/2017 Version: 1.3

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

1.1. Product identifier

Product form : Mixture

Product name : Maltose/Sucrose/D-Glucose Assay Kit (Bottle 2)

Product code : K-MASUG (Bottle 2)

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only Use of the substance/mixture : Use as laboratory reagent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Megazyme Bray Business Park A98 YV29 Bray - 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: 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]

EUH-statements : EUH032 - Contact with acids liberates very toxic gas.

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

No labelling required

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

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Safety Data Sheet

according to Regulation (EU) 2015/830

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.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of

: Toxic fumes may be released.

fire

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 : 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.

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

| Туре | Material | Permeation | Thickness (mm) | Penetration | Standard |
|-------------------|----------------------|------------------|----------------|-------------|----------|
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) | EN 374-2 |

Eye protection:

Safety glasses

| Туре | Use | Characteristics | Standard |
|----------------|------|-------------------|----------|
| Safety glasses | Dust | With side shields | EN 166 |

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according to Regulation (EU) 2015/830

Skin and body protection:

Wear suitable protective clothing

| Туре | Standard |
|----------|----------|
| Lab coat | |

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

| Device | vice Filter type | | Standard |
|-----------|------------------|--------------------------------|----------------|
| Dust mask | Type P1 | Protection for Solid particles | EN 143, EN 149 |







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 : Solid

Colour : No data available

Odour : None.

Odour threshold : No data available : No data available Relative evaporation rate (butylacetate=1) : No data available Melting point : No data available Freezing point : Not applicable Boiling point : No data available Flash point : Not applicable : Not applicable Auto-ignition temperature : No data available Decomposition temperature Flammability (solid, gas) : Non flammable. : No data available Vapour pressure Relative vapour density at 20 °C : No data available Relative density : Not applicable Solubility : Soluble in water. : No data available Log Pow Viscosity, kinematic Not applicable Viscosity, dynamic : No data available : No data available Explosive properties Oxidising properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Explosive limits

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

: Not applicable

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

10.4. Conditions to avoid

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

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Safety Data Sheet

according to Regulation (EU) 2015/830

10.5. Incompatible materials

Acids.

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

: Not classified Acute toxicity (oral) : Not classified Acute toxicity (dermal) Acute toxicity (inhalation) : Not classified : Not classified Skin corrosion/irritation : Not classified Serious eye damage/irritation 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

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

SECTION 14: Transport information

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

| ADR | IATA |
|----------------------------------|----------------|
| 14.1. UN number | |
| Not applicable | Not applicable |
| 14.2. UN proper shipping name | |
| Not applicable | Not applicable |
| 14.3. Transport hazard class(es) | |
| Not applicable | Not applicable |
| 14.4. Packing group | |
| Not applicable | Not applicable |
| 14.5. Environmental hazards | |
| Not applicable | Not applicable |

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Safety Data Sheet

according to Regulation (EU) 2015/830

ADR IATA

No supplementary information available

14.6. Special precautions for user

- Overland transport

Not applicable

- Air 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

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:

| EUH032 | Contact with acids liberates very toxic gas. |
|--------|--|

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.

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Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 05/06/2013 Revision date: 20/12/2017 Supersedes: 02/03/2017 Version: 1.3

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

1.1. Product identifier

Product form : Mixture

Product name : Maltose/Sucrose/D-Glucose Assay Kit (Bottle 1)

Product code : K-MASUG (Bottle 1)

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
Use of the substance/mixture : Use as laboratory reagent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Megazyme Bray Business Park A98 YV29 Bray - 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: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 1C H314
Reproductive toxicity, Category 1B H360

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

May damage fertility or the unborn child. Causes severe skin burns and eye damage.

2.2. Label elements

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

Hazard pictograms (CLP) :





GHS05

GHS08

Signal word (CLP) : Danger
Hazardous ingredients : imidazole

Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.

H360 - May damage fertility or the unborn child.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe mist, spray, vapours. P264 - Wash hands thoroughly after handling.

P280 - Wear eye protection, protective clothing, protective gloves

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

EUH-statements : EUH032 - Contact with acids liberates very toxic gas.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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Safety Data Sheet

according to Regulation (EU) 2015/830

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|---|---------|--|
| imidazole | (CAS-No.) 288-32-4 (EC-No.) 206-019-2 (EC Index-No.) 613-319-00-0 | 10 - 20 | Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Repr. 1B, H360D |
| MAGNESIUM CHLORIDE | (CAS-No.) 7786-30-3 (EC-No.) 232-094-6 (REACH-no) 01-2119485597-19 | 1 - 5 | Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 |
| sodium azide substance with a Community workplace exposure limit | (CAS-No.) 26628-22-8 (EC-No.) 247-852-1 (EC Index-No.) 011-004-00-7 | < 0.1 | Acute Tox. 2 (Oral), H300 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician

immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Do not

breathe dust/fume/gas/mist/vapours/spray.

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. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

waters.

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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe

dust/fume/gas/mist/vapours/spray.

Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing

before reuse. 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 locked up. 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

| sodium azide (26628-22-8) | | |
|---------------------------|----------------------|---------------------------------|
| EU | Local name | Sodium azide |
| EU | IOELV TWA (mg/m³) | 0.1 mg/m³ |
| EU | IOELV STEL (mg/m³) | 0.3 mg/m³ |
| EU | Notes | Skin |
| EU | Regulatory reference | COMMISSION DIRECTIVE 2000/39/EC |

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

| Туре | Material | Permeation | Thickness (mm) | Penetration | Standard |
|-------------------|----------------------|------------------|----------------|-------------|----------|
| Disposable gloves | Nitrile rubber (NBR) | 3 (> 60 minutes) | | 2 (< 1.5) | EN 374-2 |

Eye protection:

Safety glasses

| Туре | Use | Characteristics | Standard |
|----------------|---------|-------------------|----------|
| Safety glasses | Droplet | With side shields | EN 166 |

Skin and body protection:

Wear suitable protective clothing

| Туре | Standard |
|----------|----------|
| Lab coat | |

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

| Device | Filter type | Condition | Standard |
|-----------|-------------|---------------------------------|----------------|
| Dust mask | Type P1 | Protection for Liquid particles | EN 143, EN 149 |







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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 : None.

Odour threshold : No data available pН No data available Relative evaporation rate (butylacetate=1) : No data available Melting point : Not applicable Freezing point No data available **Boiling point** No data available No data available Flash point 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 : No data available Relative density Solubility Soluble in water. Log Pow No data available Viscosity, kinematic No data available No data available Viscosity, dynamic Explosive properties No data available

Explosive limits

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Oxidising properties

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

Contact with acids liberates very toxic gas.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Acids.

10.6. Hazardous decomposition products

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

No data available

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

| MAGNESIUM CHLORIDE (7786-30-3) | |
|--------------------------------|--|
| LD50 oral rat | 2800 mg/kg |
| LD50 oral | 2800 mg/kg bodyweight |
| Skin corrosion/irritation : | Causes severe skin burns and eye damage. |
| Serious eye damage/irritation | Serious eye damage, category 1, implicit |

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Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : May damage fertility or the unborn child.

STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity Ecology - general

: Before neutralisation, the product may represent a danger to aquatic organisms.

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

| MAGNESIUM CHLORIDE (7786-30-3) | | |
|--------------------------------|--|--|
| LC50 fish 1 | 1970 - 3880 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) | |
| EC50 Daphnia 1 | 140 mg/l (Exposure time: 48 h - Species: Daphnia magna [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: Desmodesmus subspicatus) | |

12.2. Persistence and degradability

| 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

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

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information

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

| ADR | IATA | |
|--|----------------|--|
| 14.1. UN number | | |
| Not applicable | Not applicable | |
| 14.2. UN proper shipping name | | |
| Not applicable | Not applicable | |
| 14.3. Transport hazard class(es) | | |
| Not applicable | Not applicable | |
| 14.4. Packing group | | |
| Not applicable | Not applicable | |
| 14.5. Environmental hazards | | |
| Not applicable | Not applicable | |
| No supplementary information available | | |

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14.6. Special precautions for user

- Overland transport

Not applicable

- Air 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

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 Test 2 (Onel) | A such Assistant (analy Carte many 2 |
|---------------------|---|
| Acute Tox. 2 (Oral) | Acute toxicity (oral), Category 2 |
| 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 Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Met. Corr. 1 | Corrosive to metals, Category 1 |
| Repr. 1B | Reproductive toxicity, Category 1B |
| Skin Corr. 1C | Skin corrosion/irritation, Category 1C |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| H290 | May be corrosive to metals. |
| H300 | Fatal if swallowed. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H360 | May damage fertility or the unborn child. |
| H360D | May damage the unborn child. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| EUH032 | Contact with acids liberates very toxic gas. |

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.

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