



# Lactulose Assay Kit

Kit Safety Information Sheet (SIS)

Issue date: 05/06/2013

Revision date: 12/04/2022

Supersedes: 30/04/2020

Version: 1.5

## SECTION 1: Kit identification

### 1.1. Kit identifier

Product name : Lactulose Assay Kit  
Product code : K-LACTUL

### 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](mailto:cs@megazyme.com) - [www.megazyme.com](http://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] |
|--------------------------------|---------------------|----------|--------------|-----------------------------------------------------------------|
| Lactulose Assay Kit (Bottle 1) | Buffer              | 1        | pcs (pieces) | Resp. Sens. 1, H334                                             |
| Lactulose Assay Kit (Bottle 2) | Reagent             | 1        | pcs (pieces) | Resp. Sens. 1, H334                                             |
| Lactulose Assay Kit (Bottle 3) | Reagent             | 1        | pcs (pieces) | Skin Corr. 1C, H314<br>Repr. 1B, H360                           |

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         |
|--------------------------------|---------------------|----------|--------------|
| Lactulose Assay Kit (Bottle 4) | Reagent             | 1        | pcs (pieces) |
| Lactulose Assay Kit (Bottle 5) | Reagent             | 1        | pcs (pieces) |
| Lactulose Assay Kit (Bottle 6) | Reagent             | 1        | pcs (pieces) |
| Lactulose Assay Kit (Bottle 7) | Reagent             | 1        | pcs (pieces) |
| Lactulose Assay Kit (Bottle 8) | 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

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

# Lactulose Assay Kit

## Kit Safety Information Sheet (SIS)

|                                                  |  |                               |
|--------------------------------------------------|--|-------------------------------|
| Hazardous decomposition products in case of fire |  | Complete protective clothing  |
|                                                  |  | : Toxic fumes may be released |

### SECTION 8: Other information

No data available

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Lactulose Assay Kit (Bottle 1)  
Product code : K-LACTUL (Bottle 1)

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
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

##### Manufacturer

Megazyme  
Bray Business Park  
IE- A98 YV29 Bray – County Wicklow  
Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://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- and EUH-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  
Contains : Galactosidase,  $\beta$ -  
Hazard statements (CLP) : H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Precautionary statements (CLP) : P261 - Avoid breathing mist, spray, vapours.  
P284 - 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.  
EUH-statements : EUH032 - Contact with acids liberates very toxic gas.  
Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

# Lactulose Assay Kit (Bottle 1)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hazard pictograms (CLP)



GHS08

Hazardous ingredients

: Galactosidase,  $\beta$ -

### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## 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]               |
|---------------------------------------------------------------------|------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------|
| Galactosidase, $\beta$ -                                            | CAS-No.: 9031-11-2<br>EC-No.: 232-864-1                                | 5 – 10 | Resp. Sens. 1, H334                                                           |
| sodium azide<br>substance with a Community workplace exposure limit | CAS-No.: 26628-22-8<br>EC-No.: 247-852-1<br>EC Index-No.: 011-004-00-7 | < 0,1  | Acute Tox. 2 (Oral), H300<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 |

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                       |                                                                                                                                          |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 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. Carbon dioxide. |
|------------------------------|--------------------------------------------------|

# Lactulose Assay Kit (Bottle 1)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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/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.

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

#### 8.1.1 National occupational exposure and biological limit values

| sodium azide (26628-22-8)                          |                       |
|----------------------------------------------------|-----------------------|
| EU - Indicative Occupational Exposure Limit (IOEL) |                       |
| Local name                                         | Sodium azide          |
| IOEL TWA                                           | 0,1 mg/m <sup>3</sup> |
| IOEL STEL                                          | 0,3 mg/m <sup>3</sup> |

# Lactulose Assay Kit (Bottle 1)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### sodium azide (26628-22-8)

|                      |                                 |
|----------------------|---------------------------------|
| Remark               | Skin                            |
| Regulatory reference | COMMISSION DIRECTIVE 2000/39/EC |

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

**Appropriate engineering controls:**

Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

**Personal protective equipment symbol(s):**



##### 8.2.2.1. Eye and face protection

**Eye protection:**

Safety glasses

| Eye protection |                      |                          |          |
|----------------|----------------------|--------------------------|----------|
| Type           | Field of application | Characteristics          | Standard |
| Safety glasses | Droplet              | clear, With side shields | EN 174   |

##### 8.2.2.2. Skin protection

**Skin and body protection:**

Wear suitable protective clothing

| Skin and body protection |          |
|--------------------------|----------|
| Type                     | Standard |
| Lab coat                 |          |

**Hand protection:**

Protective gloves

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

##### 8.2.2.3. Respiratory protection

**Respiratory protection:**

[In case of inadequate ventilation] wear respiratory protection.

# Lactulose Assay Kit (Bottle 1)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### 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                                          | : milky.            |
| Odour                                           | : None.             |
| Odour threshold                                 | : Not available     |
| Melting point                                   | : Not applicable    |
| Freezing point                                  | : Not available     |
| Boiling point                                   | : Not available     |
| Flammability                                    | : Not applicable    |
| Lower explosion limit                           | : Not available     |
| Upper explosion limit                           | : Not available     |
| Flash point                                     | : Not available     |
| Auto-ignition temperature                       | : Not available     |
| Decomposition temperature                       | : Not available     |
| pH                                              | : Not available     |
| Viscosity, kinematic                            | : Not available     |
| Solubility                                      | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available     |
| Vapour pressure                                 | : Not available     |
| Vapour pressure at 50°C                         | : Not available     |
| Density                                         | : Not available     |
| Relative density                                | : Not available     |
| Relative vapour density at 20°C                 | : Not available     |
| Particle characteristics                        | : Not applicable    |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

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.

# Lactulose Assay Kit (Bottle 1)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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 hazard classes as defined in Regulation (EC) No 1272/2008

|                                   |                                                                              |
|-----------------------------------|------------------------------------------------------------------------------|
| 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                                                             |

### 11.2. Information on other hazards

No additional information available

## 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. |
| Hazardous to the aquatic environment, short-term (acute)  | : Not classified                                                                                                        |
| Hazardous to the aquatic environment, long-term (chronic) | : 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. Endocrine disrupting properties

No additional information available



# Lactulose Assay Kit (Bottle 1)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 12.7. 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 / IATA

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

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

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

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

# Lactulose Assay Kit (Bottle 1)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic 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 Tox. 2 (Oral) | Acute toxicity (oral), Category 2                                          |
| Aquatic Acute 1     | Hazardous to the aquatic environment – Acute Hazard, Category 1            |
| Aquatic Chronic 1   | Hazardous to the aquatic environment – Chronic Hazard, Category 1          |
| EUH032              | Contact with acids liberates very toxic gas.                               |
| H300                | Fatal if swallowed.                                                        |
| H334                | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H400                | Very toxic to aquatic life.                                                |
| H410                | Very toxic to aquatic life with long lasting effects.                      |
| Resp. Sens. 1       | Respiratory sensitisation, Category 1                                      |

Safety Data Sheet (SDS), EU

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.

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Lactulose Assay Kit (Bottle 2)  
Product code : K-LACTUL (Bottle 2)

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
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

##### Manufacturer

Megazyme  
Bray Business Park  
IE- A98 YV29 Bray – County Wicklow  
Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://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- and EUH-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  
Contains : Catalase; GLUCOSE OXIDASE  
Hazard statements (CLP) : H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Precautionary statements (CLP) : P261 - Avoid breathing mist, spray, vapours.  
P284 - 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

# Lactulose Assay Kit (Bottle 2)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hazard pictograms (CLP)



GHS08

Hazardous ingredients

: Catalase; GLUCOSE OXIDASE

### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## 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]                               |
|-----------------|-----------------------------------------|-------|-----------------------------------------------------------------------------------------------|
| GLUCOSE OXIDASE | CAS-No.: 9001-37-0<br>EC-No.: 232-601-0 | 1 – 5 | Acute Tox. 4 (Oral), H302<br>Acute Tox. 4 (Inhalation:dust,mist), H332<br>Resp. Sens. 1, H334 |
| Catalase        | CAS-No.: 9001-05-2<br>EC-No.: 232-577-1 | 1 – 5 | Resp. Sens. 1, H334                                                                           |

Full text of H- and EUH-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. |
|------------------------------|----------------------------------|

# Lactulose Assay Kit (Bottle 2)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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/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.

### 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/fume/gas/mist/vapours/spray.  
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

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

# Lactulose Assay Kit (Bottle 2)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses

#### Eye protection

| Type           | Field of application | Characteristics          | Standard |
|----------------|----------------------|--------------------------|----------|
| Safety glasses | Dust                 | clear, With side shields | EN 174   |

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing

#### Skin and body protection

| Type     | Standard |
|----------|----------|
| Lab coat |          |

##### Hand protection:

Protective gloves

#### Hand protection

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

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

#### Respiratory protection

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

#### 8.2.2.4. Thermal hazards

No additional information available

# Lactulose Assay Kit (Bottle 2)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 8.2.3. Environmental exposure controls

#### 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                                          | : Not available     |
| Odour                                           | : None.             |
| Odour threshold                                 | : Not available     |
| Melting point                                   | : Not available     |
| Freezing point                                  | : Not applicable    |
| Boiling point                                   | : Not available     |
| Flammability                                    | : Non flammable.    |
| Lower explosion limit                           | : Not applicable    |
| Upper explosion limit                           | : Not applicable    |
| Flash point                                     | : Not applicable    |
| Auto-ignition temperature                       | : Not applicable    |
| Decomposition temperature                       | : Not available     |
| pH                                              | : Not available     |
| pH solution                                     | : Not available     |
| Viscosity, kinematic                            | : Not applicable    |
| Solubility                                      | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available     |
| Vapour pressure                                 | : Not available     |
| Vapour pressure at 50°C                         | : Not available     |
| Density                                         | : Not available     |
| Relative density                                | : Not available     |
| Relative vapour density at 20°C                 | : Not applicable    |
| Particle size                                   | : Not available     |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

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

# Lactulose Assay Kit (Bottle 2)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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 hazard classes as defined in Regulation (EC) No 1272/2008

|                                   |                                                                              |
|-----------------------------------|------------------------------------------------------------------------------|
| 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                                                             |

### Lactulose Assay Kit (Bottle 2)

|                      |                |
|----------------------|----------------|
| Viscosity, kinematic | Not applicable |
|----------------------|----------------|

### 11.2. Information on other hazards

No additional information available

## 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. |
| Hazardous to the aquatic environment, short-term (acute)  | : Not classified                                                                                                        |
| Hazardous to the aquatic environment, long-term (chronic) | : 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. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available



# Lactulose Assay Kit (Bottle 2)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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 / IATA

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

#### 14.6. Special precautions for user

##### Overland transport

Not applicable

##### Air transport

Not applicable

#### 14.7. Maritime transport in bulk according to IMO instruments

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

###### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

###### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

###### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

###### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

###### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

# Lactulose Assay Kit (Bottle 2)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic 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 Tox. 4<br>(Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 4                           |
| Acute Tox. 4 (Oral)                    | Acute toxicity (oral), Category 4                                          |
| H302                                   | Harmful if swallowed.                                                      |
| H332                                   | Harmful if inhaled.                                                        |
| H334                                   | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Resp. Sens. 1                          | Respiratory sensitisation, Category 1                                      |

Safety Data Sheet (SDS), EU

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.

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

### 1.1. Product identifier

Product form : Mixture  
Product name : Lactulose Assay Kit (Bottle 3)  
Product code : K-LACTUL (Bottle 3)

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

#### 1.2.1. Relevant identified uses

Main use category : Professional use  
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

#### Manufacturer

Megazyme  
Bray Business Park  
IE- A98 YV29 Bray – County Wicklow  
Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://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 1, Sub-Category 1C H314  
Reproductive toxicity, Category 1B H360  
Full text of H- and EUH-statements: see section 16

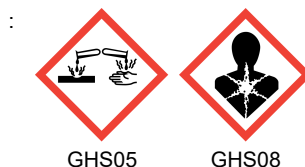
#### Adverse physicochemical, human health and environmental effects

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

### 2.2. Label elements

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

Hazard pictograms (CLP)



GHS05

GHS08

Signal word (CLP)

: Danger

Contains

: 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 protective gloves/protective clothing/eye protection/face protection/hearing protection.

# Lactulose Assay Kit (Bottle 3)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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

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

Hazard pictograms (CLP) :



GHS08



GHS05

Hazardous ingredients : imidazole

### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

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.

# Lactulose Assay Kit (Bottle 3)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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.

## 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

# Lactulose Assay Kit (Bottle 3)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

| sodium azide (26628-22-8)                          |                                 |
|----------------------------------------------------|---------------------------------|
| EU - Indicative Occupational Exposure Limit (IOEL) |                                 |
| Local name                                         | Sodium azide                    |
| IOEL TWA                                           | 0,1 mg/m <sup>3</sup>           |
| IOEL STEL                                          | 0,3 mg/m <sup>3</sup>           |
| Remark                                             | Skin                            |
| Regulatory reference                               | COMMISSION DIRECTIVE 2000/39/EC |

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

###### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### 8.2.2. Personal protection equipment

###### Personal protective equipment symbol(s):



###### 8.2.2.1. Eye and face protection

###### Eye protection:

Safety glasses

| Eye protection |                      |                          |          |
|----------------|----------------------|--------------------------|----------|
| Type           | Field of application | Characteristics          | Standard |
| Safety glasses | Droplet              | clear, With side shields | EN 174   |

###### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing

| Skin and body protection |          |
|--------------------------|----------|
| Type                     | Standard |
| Lab coat                 |          |

# Lactulose Assay Kit (Bottle 3)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Hand protection:

Protective gloves

#### Hand protection

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

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

#### Respiratory protection

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

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

##### 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                                          | : milky.            |
| Odour                                           | : None.             |
| Odour threshold                                 | : Not available     |
| Melting point                                   | : Not applicable    |
| Freezing point                                  | : Not available     |
| Boiling point                                   | : Not available     |
| Flammability                                    | : Not applicable    |
| Lower explosion limit                           | : Not available     |
| Upper explosion limit                           | : Not available     |
| Flash point                                     | : Not available     |
| Auto-ignition temperature                       | : Not available     |
| Decomposition temperature                       | : Not available     |
| pH                                              | : Not available     |
| Viscosity, kinematic                            | : Not available     |
| Solubility                                      | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available     |
| Vapour pressure                                 | : Not available     |
| Vapour pressure at 50°C                         | : Not available     |
| Density                                         | : Not available     |
| Relative density                                | : Not available     |
| Relative vapour density at 20°C                 | : Not available     |
| Particle characteristics                        | : Not applicable    |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

# Lactulose Assay Kit (Bottle 3)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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 hazard classes as defined in Regulation (EC) No 1272/2008

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

##### imidazole (288-32-4)

|           |           |
|-----------|-----------|
| LD50 oral | 960 mg/kg |
|-----------|-----------|

##### MAGNESIUM CHLORIDE (7786-30-3)

|               |            |
|---------------|------------|
| LD50 oral rat | 2800 mg/kg |
|---------------|------------|

|           |                       |
|-----------|-----------------------|
| LD50 oral | 2800 mg/kg bodyweight |
|-----------|-----------------------|

Skin corrosion/irritation : Causes severe skin burns.

##### MAGNESIUM CHLORIDE (7786-30-3)

|    |                 |
|----|-----------------|
| pH | 5 – 6,5 (2.5 %) |
|----|-----------------|

Serious eye damage/irritation : Assumed to cause serious eye damage

##### MAGNESIUM CHLORIDE (7786-30-3)

|    |                 |
|----|-----------------|
| pH | 5 – 6,5 (2.5 %) |
|----|-----------------|

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

#### 11.2. Information on other hazards

No additional information available



# Lactulose Assay Kit (Bottle 3)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 12: Ecological information

#### 12.1. Toxicity

|                                                           |                                                                                   |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------|
| Ecology - general                                         | : Before neutralisation, the product may represent a danger to aquatic organisms. |
| Hazardous to the aquatic environment, short-term (acute)  | : Not classified                                                                  |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified                                                                  |

| imidazole (288-32-4) |         |
|----------------------|---------|
| NOEC chronic algae   | 25 mg/l |

| MAGNESIUM CHLORIDE (7786-30-3)     |                                                                                |
|------------------------------------|--------------------------------------------------------------------------------|
| LC50 - Fish [1]                    | 1970 – 3880 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |
| EC50 - Crustacea [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. Endocrine disrupting properties

No additional information available

#### 12.7. 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.

# Lactulose Assay Kit (Bottle 3)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 14: Transport information

In accordance with ADR / IATA

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

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

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

###### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

###### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

###### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

###### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

###### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

###### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

###### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

# Lactulose Assay Kit (Bottle 3)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic 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 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 |
| EUH032              | Contact with acids liberates very toxic gas.                      |
| Eye Dam. 1          | Serious eye damage/eye irritation, Category 1                     |
| 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.             |
| Met. Corr. 1        | Corrosive to metals, Category 1                                   |
| Repr. 1B            | Reproductive toxicity, Category 1B                                |
| Skin Corr. 1C       | Skin corrosion/irritation, Category 1, Sub-Category 1C            |
| Skin Irrit. 2       | Skin corrosion/irritation, Category 2                             |

Safety Data Sheet (SDS), EU

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.



# Lactulose Assay Kit (Bottle 4)

## Safety Data Sheet

\*\*\* DRAFT \*\*\*

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 05.06.2013 Revision date: 14.03.2022 Supersedes version of: 30.04.2020 Version: 1.4

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Lactulose Assay Kit (Bottle 4)  
Product code : K-LACTUL (Bottle 4)

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
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

##### Manufacturer

Megazyme  
Bray Business Park  
IE- A98 YV29 Bray – County Wicklow  
Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://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]

No labelling applicable

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

No labelling required

#### 2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

# Lactulose Assay Kit (Bottle 4)

## Safety Data Sheet

\*\*\* DRAFT \*\*\*

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 3.2. Mixtures

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                       |                                                                  |
|---------------------------------------|------------------------------------------------------------------|
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water.                                |
| First-aid measures after eye contact  | : Rinse eyes with water as a precaution.                         |
| First-aid measures after ingestion    | : Call a poison center or a doctor if you feel unwell.           |

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

No additional information available

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

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

### 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. |
|----------------------|----------------------------|

#### 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.

# Lactulose Assay Kit (Bottle 4)

## Safety Data Sheet

\*\*\* DRAFT \*\*\*

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

###### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### 8.2.2. Personal protection equipment

###### Personal protective equipment symbol(s):



###### 8.2.2.1. Eye and face protection

###### Eye protection:

Safety glasses

###### Eye protection

| Type           | Field of application | Characteristics          | Standard |
|----------------|----------------------|--------------------------|----------|
| Safety glasses | Dust                 | clear, With side shields | EN 174   |

###### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing

# Lactulose Assay Kit (Bottle 4)

## Safety Data Sheet

\*\*\* DRAFT \*\*\*

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Skin and body protection

| Type     | Standard |
|----------|----------|
| Lab coat |          |

### Hand protection:

Protective gloves

### Hand protection

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

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

### Respiratory protection

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

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### 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                                          | : Not available     |
| Odour                                           | : None.             |
| Odour threshold                                 | : Not available     |
| Melting point                                   | : Not available     |
| Freezing point                                  | : Not applicable    |
| Boiling point                                   | : Not available     |
| Flammability                                    | : Non flammable.    |
| Lower explosion limit                           | : Not applicable    |
| Upper explosion limit                           | : Not applicable    |
| Flash point                                     | : Not applicable    |
| Auto-ignition temperature                       | : Not applicable    |
| Decomposition temperature                       | : Not available     |
| pH                                              | : Not available     |
| pH solution                                     | : Not available     |
| Viscosity, kinematic                            | : Not applicable    |
| Solubility                                      | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available     |
| Vapour pressure                                 | : Not available     |
| Vapour pressure at 50°C                         | : Not available     |
| Density                                         | : Not available     |
| Relative density                                | : Not available     |
| Relative vapour density at 20°C                 | : Not applicable    |
| Particle size                                   | : Not available     |

# Lactulose Assay Kit (Bottle 4)

## Safety Data Sheet

\*\*\* DRAFT \*\*\*

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

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 hazard classes as defined in Regulation (EC) No 1272/2008

|                                   |                  |
|-----------------------------------|------------------|
| 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 |

### Lactulose Assay Kit (Bottle 4)

|                      |                |
|----------------------|----------------|
| Viscosity, kinematic | Not applicable |
|----------------------|----------------|

### 11.2. Information on other hazards

No additional information available



# Lactulose Assay Kit (Bottle 4)

## Safety Data Sheet

\*\*\* DRAFT \*\*\*

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : 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. Endocrine disrupting properties

No additional information available

#### 12.7. 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 / IATA

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

# Lactulose Assay Kit (Bottle 4)

## Safety Data Sheet

\*\*\* DRAFT \*\*\*

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

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

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic 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

No additional information available

Safety Data Sheet (SDS), EU

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.



# Lactulose Assay Kit (Bottle 5)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 05.06.2013 Revision date: 14.03.2022 Supersedes version of: 18.12.2017 Version: 1.3

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Lactulose Assay Kit (Bottle 5)  
Product code : K-LACTUL (Bottle 5)

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
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

##### Manufacturer

Megazyme  
Bray Business Park  
IE- A98 YV29 Bray – County Wicklow  
Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://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

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

#### 2.2. Label elements

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

EUH-statements : EUH032 - Contact with acids liberates very toxic gas.  
EUH208 - Contains Kinase (phosphorylating), hexo-, Hexokinase. 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

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

# Lactulose Assay Kit (Bottle 5)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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] |
|---------------------------------------------|-----------------------------------------|---------|-----------------------------------------------------------------|
| Kinase (phosphorylating), hexo-, Hexokinase | CAS-No.: 9001-51-8<br>EC-No.: 232-611-5 | 0,1 – 1 | Resp. Sens. 1, H334                                             |

Full text of H- and EUH-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. 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 | : Ventilate spillage area. Avoid breathing 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". |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

# Lactulose Assay Kit (Bottle 5)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

**Appropriate engineering controls:**  
Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

**Personal protective equipment symbol(s):**



# Lactulose Assay Kit (Bottle 5)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 8.2.2.1. Eye and face protection

#### Eye protection:

Safety glasses

| Eye protection |                      |                          |          |
|----------------|----------------------|--------------------------|----------|
| Type           | Field of application | Characteristics          | Standard |
| Safety glasses | Droplet              | clear, With side shields | EN 174   |

### 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing

| Skin and body protection |          |
|--------------------------|----------|
| Type                     | Standard |
| Lab coat                 |          |

#### Hand protection:

Protective gloves

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

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

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

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### 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                    | : milky.         |
| Odour                     | : None.          |
| Odour threshold           | : Not available  |
| Melting point             | : Not applicable |
| Freezing point            | : Not available  |
| Boiling point             | : Not available  |
| Flammability              | : Not applicable |
| Lower explosion limit     | : Not available  |
| Upper explosion limit     | : Not available  |
| Flash point               | : Not available  |
| Auto-ignition temperature | : Not available  |

# Lactulose Assay Kit (Bottle 5)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

|                                                 |                     |
|-------------------------------------------------|---------------------|
| Decomposition temperature                       | : Not available     |
| pH                                              | : Not available     |
| Viscosity, kinematic                            | : Not available     |
| Solubility                                      | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available     |
| Vapour pressure                                 | : Not available     |
| Vapour pressure at 50°C                         | : Not available     |
| Density                                         | : Not available     |
| Relative density                                | : Not available     |
| Relative vapour density at 20°C                 | : Not available     |
| Particle characteristics                        | : Not applicable    |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

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 hazard classes as defined in Regulation (EC) No 1272/2008

|                                   |                  |
|-----------------------------------|------------------|
| 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 |

# Lactulose Assay Kit (Bottle 5)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 11.2. Information on other hazards

No additional information available

## 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.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : 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. Endocrine disrupting properties

No additional information available

### 12.7. 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 / IATA

| ADR                                     | IATA           |
|-----------------------------------------|----------------|
| <b>14.1. UN number or ID number</b>     |                |
| Not applicable                          | Not applicable |
| <b>14.2. UN proper shipping name</b>    |                |
| Not applicable                          | Not applicable |
| <b>14.3. Transport hazard class(es)</b> |                |
| Not applicable                          | Not applicable |
| <b>14.4. Packing group</b>              |                |
| Not applicable                          | Not applicable |



# Lactulose Assay Kit (Bottle 5)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

| ADR                                    | IATA           |
|----------------------------------------|----------------|
| <b>14.5. Environmental hazards</b>     |                |
| Not applicable                         | Not applicable |
| No supplementary information available |                |

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

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

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic 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 Kinase (phosphorylating), hexo-, Hexokinase. May produce an allergic reaction. |

# Lactulose Assay Kit (Bottle 5)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Full text of H- and EUH-statements:

|               |                                                                            |
|---------------|----------------------------------------------------------------------------|
| EUH210        | Safety data sheet available on request.                                    |
| H334          | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Resp. Sens. 1 | Respiratory sensitisation, Category 1                                      |

Safety Data Sheet (SDS), EU

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.



# Lactulose Assay Kit (Bottle 6)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 05.06.2013 Revision date: 14.03.2022 Supersedes version of: 18.12.2017 Version: 1.3

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Lactulose Assay Kit (Bottle 6)  
Product code : K-LACTUL (Bottle 6)

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
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

##### Manufacturer

Megazyme  
Bray Business Park  
IE- A98 YV29 Bray – County Wicklow  
Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://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

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

# Lactulose Assay Kit (Bottle 6)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

|                                       |                                                                  |
|---------------------------------------|------------------------------------------------------------------|
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water.                                |
| First-aid measures after eye contact  | : Rinse eyes with water as a precaution.                         |
| First-aid measures after ingestion    | : Call a poison center or a doctor if you feel unwell.           |

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

No additional information available

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

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

#### 5.2. Special hazards arising from the substance or mixture

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

#### 5.3. Advice for firefighters

|                                |                                                                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

|                      |                            |
|----------------------|----------------------------|
| Emergency procedures | : Ventilate spillage area. |
|----------------------|----------------------------|

##### 6.1.2. For emergency responders

|                      |                                                                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

|                         |                                                                 |
|-------------------------|-----------------------------------------------------------------|
| Methods for cleaning up | : Take up liquid spill into absorbent material.                 |
| Other information       | : Dispose of materials or solid residues at an authorized site. |

#### 6.4. Reference to other sections

For further information refer to section 13.

# Lactulose Assay Kit (Bottle 6)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

###### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### 8.2.2. Personal protection equipment

###### Personal protective equipment symbol(s):



###### 8.2.2.1. Eye and face protection

###### Eye protection:

Safety glasses

###### Eye protection

| Type           | Field of application | Characteristics          | Standard |
|----------------|----------------------|--------------------------|----------|
| Safety glasses | Droplet              | clear, With side shields | EN 174   |

###### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing

# Lactulose Assay Kit (Bottle 6)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Skin and body protection

| Type     | Standard |
|----------|----------|
| Lab coat |          |

### Hand protection:

Protective gloves

### Hand protection

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

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

### Respiratory protection

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

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### 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                                          | : milky.            |
| Odour                                           | : None.             |
| Odour threshold                                 | : Not available     |
| Melting point                                   | : Not applicable    |
| Freezing point                                  | : Not available     |
| Boiling point                                   | : Not available     |
| Flammability                                    | : Not applicable    |
| Lower explosion limit                           | : Not available     |
| Upper explosion limit                           | : Not available     |
| Flash point                                     | : Not available     |
| Auto-ignition temperature                       | : Not available     |
| Decomposition temperature                       | : Not available     |
| pH                                              | : Not available     |
| Viscosity, kinematic                            | : Not available     |
| Solubility                                      | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available     |
| Vapour pressure                                 | : Not available     |
| Vapour pressure at 50°C                         | : Not available     |
| Density                                         | : Not available     |
| Relative density                                | : Not available     |
| Relative vapour density at 20°C                 | : Not available     |
| Particle characteristics                        | : Not applicable    |

# Lactulose Assay Kit (Bottle 6)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

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 hazard classes as defined in Regulation (EC) No 1272/2008

|                                   |                  |
|-----------------------------------|------------------|
| 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 |

### 11.2. Information on other hazards

No additional information available

## 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. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified                                                                                                        |

# Lactulose Assay Kit (Bottle 6)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hazardous to the aquatic environment, long-term (chronic) : 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. Endocrine disrupting properties

No additional information available

### 12.7. 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 / IATA

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

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable



# Lactulose Assay Kit (Bottle 6)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 14.7. Maritime transport in bulk according to IMO instruments

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

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic 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. |
|--------|----------------------------------------------|

Safety Data Sheet (SDS), EU

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.



# Lactulose Assay Kit (Bottle 7)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 05.06.2013 Revision date: 14.03.2022 Supersedes version of: 18.12.2017 Version: 1.3

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Lactulose Assay Kit (Bottle 7)  
Product code : K-LACTUL (Bottle 7)

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
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

##### Manufacturer

Megazyme  
Bray Business Park  
IE- A98 YV29 Bray – County Wicklow  
Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://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

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

# Lactulose Assay Kit (Bottle 7)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

|                                       |                                                                  |
|---------------------------------------|------------------------------------------------------------------|
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water.                                |
| First-aid measures after eye contact  | : Rinse eyes with water as a precaution.                         |
| First-aid measures after ingestion    | : Call a poison center or a doctor if you feel unwell.           |

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

No additional information available

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

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

#### 5.2. Special hazards arising from the substance or mixture

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

#### 5.3. Advice for firefighters

|                                |                                                                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

|                      |                            |
|----------------------|----------------------------|
| Emergency procedures | : Ventilate spillage area. |
|----------------------|----------------------------|

##### 6.1.2. For emergency responders

|                      |                                                                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

|                         |                                                                 |
|-------------------------|-----------------------------------------------------------------|
| Methods for cleaning up | : Take up liquid spill into absorbent material.                 |
| Other information       | : Dispose of materials or solid residues at an authorized site. |

#### 6.4. Reference to other sections

For further information refer to section 13.

# Lactulose Assay Kit (Bottle 7)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

###### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### 8.2.2. Personal protection equipment

###### Personal protective equipment symbol(s):



###### 8.2.2.1. Eye and face protection

###### Eye protection:

Safety glasses

#### Eye protection

| Type           | Field of application | Characteristics          | Standard |
|----------------|----------------------|--------------------------|----------|
| Safety glasses | Droplet              | clear, With side shields | EN 174   |

###### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing

# Lactulose Assay Kit (Bottle 7)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Skin and body protection

| Type     | Standard |
|----------|----------|
| Lab coat |          |

### Hand protection:

Protective gloves

### Hand protection

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

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

### Respiratory protection

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

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### 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                                          | : milky.            |
| Odour                                           | : None.             |
| Odour threshold                                 | : Not available     |
| Melting point                                   | : Not applicable    |
| Freezing point                                  | : Not available     |
| Boiling point                                   | : Not available     |
| Flammability                                    | : Not applicable    |
| Lower explosion limit                           | : Not available     |
| Upper explosion limit                           | : Not available     |
| Flash point                                     | : Not available     |
| Auto-ignition temperature                       | : Not available     |
| Decomposition temperature                       | : Not available     |
| pH                                              | : Not available     |
| Viscosity, kinematic                            | : Not available     |
| Solubility                                      | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available     |
| Vapour pressure                                 | : Not available     |
| Vapour pressure at 50°C                         | : Not available     |
| Density                                         | : Not available     |
| Relative density                                | : Not available     |
| Relative vapour density at 20°C                 | : Not available     |
| Particle characteristics                        | : Not applicable    |

# Lactulose Assay Kit (Bottle 7)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

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 hazard classes as defined in Regulation (EC) No 1272/2008

|                                   |                  |
|-----------------------------------|------------------|
| 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 |

### 11.2. Information on other hazards

No additional information available

## 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. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified                                                                                                        |

# Lactulose Assay Kit (Bottle 7)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hazardous to the aquatic environment, long-term (chronic) : 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. Endocrine disrupting properties

No additional information available

### 12.7. 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 / IATA

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

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

# Lactulose Assay Kit (Bottle 7)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 14.7. Maritime transport in bulk according to IMO instruments

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

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic 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. |
|--------|----------------------------------------------|

Safety Data Sheet (SDS), EU

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.





# Lactulose Assay Kit (Bottle 8)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 05.06.2013 Revision date: 14.03.2022 Supersedes version of: 18.12.2017 Version: 1.3

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Lactulose Assay Kit (Bottle 8)  
Product code : K-LACTUL (Bottle 8)

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
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

##### Manufacturer

Megazyme  
Bray Business Park  
IE- A98 YV29 Bray – County Wicklow  
Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](mailto:cs@megazyme.com) - [www.megazyme.com](http://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

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

# Lactulose Assay Kit (Bottle 8)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

|                                       |                                                                  |
|---------------------------------------|------------------------------------------------------------------|
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water.                                |
| First-aid measures after eye contact  | : Rinse eyes with water as a precaution.                         |
| First-aid measures after ingestion    | : Call a poison center or a doctor if you feel unwell.           |

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

No additional information available

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

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

#### 5.2. Special hazards arising from the substance or mixture

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

#### 5.3. Advice for firefighters

|                                |                                                                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

|                      |                            |
|----------------------|----------------------------|
| Emergency procedures | : Ventilate spillage area. |
|----------------------|----------------------------|

##### 6.1.2. For emergency responders

|                      |                                                                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

|                         |                                                                 |
|-------------------------|-----------------------------------------------------------------|
| Methods for cleaning up | : Take up liquid spill into absorbent material.                 |
| Other information       | : Dispose of materials or solid residues at an authorized site. |

#### 6.4. Reference to other sections

For further information refer to section 13.

# Lactulose Assay Kit (Bottle 8)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

###### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### 8.2.2. Personal protection equipment

###### Personal protective equipment symbol(s):



###### 8.2.2.1. Eye and face protection

###### Eye protection:

Safety glasses

###### Eye protection

| Type           | Field of application | Characteristics          | Standard |
|----------------|----------------------|--------------------------|----------|
| Safety glasses | Droplet              | clear, With side shields | EN 174   |

###### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing

# Lactulose Assay Kit (Bottle 8)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Skin and body protection

| Type     | Standard |
|----------|----------|
| Lab coat |          |

### Hand protection:

Protective gloves

### Hand protection

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

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

### Respiratory protection

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

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### 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                                          | : Not available     |
| Odour                                           | : None.             |
| Odour threshold                                 | : Not available     |
| Melting point                                   | : Not applicable    |
| Freezing point                                  | : Not available     |
| Boiling point                                   | : Not available     |
| Flammability                                    | : Not applicable    |
| Lower explosion limit                           | : Not available     |
| Upper explosion limit                           | : Not available     |
| Flash point                                     | : Not available     |
| Auto-ignition temperature                       | : Not available     |
| Decomposition temperature                       | : Not available     |
| pH                                              | : Not available     |
| Viscosity, kinematic                            | : Not available     |
| Solubility                                      | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available     |
| Vapour pressure                                 | : Not available     |
| Vapour pressure at 50°C                         | : Not available     |
| Density                                         | : Not available     |
| Relative density                                | : Not available     |
| Relative vapour density at 20°C                 | : Not available     |
| Particle characteristics                        | : Not applicable    |

# Lactulose Assay Kit (Bottle 8)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

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 hazard classes as defined in Regulation (EC) No 1272/2008

|                                   |                  |
|-----------------------------------|------------------|
| 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 |

### 11.2. Information on other hazards

No additional information available

## 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. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified                                                                                                        |

# Lactulose Assay Kit (Bottle 8)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hazardous to the aquatic environment, long-term (chronic) : 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. Endocrine disrupting properties

No additional information available

### 12.7. 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 / IATA

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

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Air transport

Not applicable

# Lactulose Assay Kit (Bottle 8)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 14.7. Maritime transport in bulk according to IMO instruments

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

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic 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. |
|--------|----------------------------------------------|

Safety Data Sheet (SDS), EU

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.