



# D-Mannitol/L-Arabitol Assay Kit

Kit Safety Information Sheet

Date of issue: 28/11/2013

Revision date: 20/12/2017

Supersedes: 06/09/2016

Version: 1.3

## SECTION 1: Kit identification

### 1.1. Kit identifier

Product name : D-Mannitol/L-Arabitol Assay Kit  
Product code : K-MANOL

### 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] |
|--------------------------------------------|---------------------|----------|--------------|-----------------------------------------------------------------|
| D-Mannitol/L-Arabitol Assay Kit (Bottle 2) | Reagent             | 2        | pcs (pieces) | Acute Tox. 4 (Oral), H302<br>Aquatic Chronic 3, H412            |

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         |
|--------------------------------------------|---------------------|----------|--------------|
| D-Mannitol/L-Arabitol Assay Kit (Bottle 1) | Buffer              | 1        | pcs (pieces) |
| D-Mannitol/L-Arabitol Assay Kit (Bottle 3) | Reagent             | 1        | pcs (pieces) |
| D-Mannitol/L-Arabitol Assay Kit (Bottle 4) | 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

# D-Mannitol/L-Arabitol Assay Kit

## Kit Safety Information Sheet

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

### SECTION 8: Other information

No data available



# D-Mannitol/L-Arabitol Assay Kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 28/11/2013

Revision date: 20/12/2017

Supersedes: 06/09/2016

Version: 1.3

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : D-Mannitol/L-Arabitol Assay Kit (Bottle 4)  
Product code : K-MANOL (Bottle 4)

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

##### 1.2.1. Relevant identified uses

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

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

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

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

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

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

No additional information available

# D-Mannitol/L-Arabitol Assay Kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

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

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

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

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Hand protection:

Protective gloves

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

#### Eye protection:

Safety glasses

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

# D-Mannitol/L-Arabitol Assay Kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### Skin and body protection:

Wear suitable protective clothing

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

### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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



### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                            |                     |
|--------------------------------------------|---------------------|
| Physical state                             | : Liquid            |
| Colour                                     | : No data available |
| Odour                                      | : None.             |
| Odour threshold                            | : No data available |
| pH                                         | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point                              | : Not applicable    |
| Freezing point                             | : No data available |
| Boiling point                              | : No data available |
| Flash point                                | : No data available |
| Auto-ignition temperature                  | : No data available |
| Decomposition temperature                  | : No data available |
| Flammability (solid, gas)                  | : Not applicable    |
| Vapour pressure                            | : No data available |
| Relative vapour density at 20 °C           | : No data available |
| Relative density                           | : No data available |
| Solubility                                 | : Soluble in water. |
| Log Pow                                    | : No data available |
| Viscosity, kinematic                       | : No data available |
| Viscosity, dynamic                         | : No data available |
| Explosive properties                       | : No data available |
| Oxidising properties                       | : No data available |
| Explosive limits                           | :                   |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

### 10.4. Conditions to avoid

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

# D-Mannitol/L-Arabitol Assay Kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 10.5. Incompatible materials

Acids.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                                   |                  |
|-----------------------------------|------------------|
| Acute toxicity (oral)             | : Not classified |
| Acute toxicity (dermal)           | : Not classified |
| Acute toxicity (inhalation)       | : Not classified |
| Skin corrosion/irritation         | : Not classified |
| Serious eye damage/irritation     | : Not classified |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity            | : Not classified |
| Carcinogenicity                   | : Not classified |
| Reproductive toxicity             | : Not classified |
| STOT-single exposure              | : Not classified |
| STOT-repeated exposure            | : Not classified |
| Aspiration hazard                 | : Not classified |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                          |                                                                                                                         |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Ecology - general        | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Acute aquatic toxicity   | : Not classified                                                                                                        |
| Chronic aquatic toxicity | : Not classified                                                                                                        |

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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

## SECTION 14: Transport information

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

| ADR                                     | IATA           |
|-----------------------------------------|----------------|
| <b>14.1. UN 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 |

# D-Mannitol/L-Arabitol Assay Kit (Bottle 4)

## Safety Data Sheet

according to Regulation (EU) 2015/830

| ADR                                    | IATA |
|----------------------------------------|------|
| No supplementary information available |      |

### 14.6. Special precautions for user

#### - Overland transport

Not applicable

#### - Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:

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

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*



# D-Mannitol/L-Arabitol Assay Kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 28/11/2013

Revision date: 20/12/2017

Supersedes: 06/09/2016

Version: 1.3

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : D-Mannitol/L-Arabitol Assay Kit (Bottle 3)  
Product code : K-MANOL (Bottle 3)

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

##### 1.2.1. Relevant identified uses

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

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

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

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

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

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

No additional information available



# D-Mannitol/L-Arabitol Assay Kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

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

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

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

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Hand protection:

Protective gloves

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

#### Eye protection:

Safety glasses

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

# D-Mannitol/L-Arabitol Assay Kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### Skin and body protection:

Wear suitable protective clothing

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

### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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



### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                            |                     |
|--------------------------------------------|---------------------|
| Physical state                             | : Liquid            |
| Colour                                     | : No data available |
| Odour                                      | : None.             |
| Odour threshold                            | : No data available |
| pH                                         | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point                              | : Not applicable    |
| Freezing point                             | : No data available |
| Boiling point                              | : No data available |
| Flash point                                | : No data available |
| Auto-ignition temperature                  | : No data available |
| Decomposition temperature                  | : No data available |
| Flammability (solid, gas)                  | : Not applicable    |
| Vapour pressure                            | : No data available |
| Relative vapour density at 20 °C           | : No data available |
| Relative density                           | : No data available |
| Solubility                                 | : Soluble in water. |
| Log Pow                                    | : No data available |
| Viscosity, kinematic                       | : No data available |
| Viscosity, dynamic                         | : No data available |
| Explosive properties                       | : No data available |
| Oxidising properties                       | : No data available |
| Explosive limits                           | :                   |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

### 10.4. Conditions to avoid

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

# D-Mannitol/L-Arabitol Assay Kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 10.5. Incompatible materials

Acids.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                                   |                  |
|-----------------------------------|------------------|
| Acute toxicity (oral)             | : Not classified |
| Acute toxicity (dermal)           | : Not classified |
| Acute toxicity (inhalation)       | : Not classified |
| Skin corrosion/irritation         | : Not classified |
| Serious eye damage/irritation     | : Not classified |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity            | : Not classified |
| Carcinogenicity                   | : Not classified |
| Reproductive toxicity             | : Not classified |
| STOT-single exposure              | : Not classified |
| STOT-repeated exposure            | : Not classified |
| Aspiration hazard                 | : Not classified |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                          |                                                                                                                         |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Ecology - general        | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Acute aquatic toxicity   | : Not classified                                                                                                        |
| Chronic aquatic toxicity | : Not classified                                                                                                        |

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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

## SECTION 14: Transport information

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

| ADR                                     | IATA           |
|-----------------------------------------|----------------|
| <b>14.1. UN 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 |

# D-Mannitol/L-Arabitol Assay Kit (Bottle 3)

## Safety Data Sheet

according to Regulation (EU) 2015/830

| ADR                                    | IATA |
|----------------------------------------|------|
| No supplementary information available |      |

### 14.6. Special precautions for user

#### - Overland transport

Not applicable

#### - Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:

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

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : D-Mannitol/L-Arabitol Assay Kit (Bottle 2)  
Product code : K-MANOL (Bottle 2)

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

##### 1.2.1. Relevant identified uses

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

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

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

Acute toxicity (oral), Category 4 H302  
Hazardous to the aquatic environment — H412  
Chronic Hazard, Category 3  
Full text of H statements : see section 16

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

Harmful if swallowed. Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning  
Hazardous ingredients : sodium azide  
Hazard statements (CLP) : H302 - Harmful if swallowed.  
H412 - Harmful to aquatic life with long lasting effects.  
Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P273 - Avoid release to the environment.  
P301+P312 - IF SWALLOWED: Call a doctor, a POISON CENTER if you feel unwell.  
P330 - Rinse mouth.  
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

Hazardous ingredients : sodium azide

#### 2.3. Other hazards

No additional information available

# D-Mannitol/L-Arabitol Assay Kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 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]               |
|--------------|---------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------|
| sodium azide | (CAS-No.) 26628-22-8<br>(EC-No.) 247-852-1<br>(EC Index-No.) 011-004-00-7 | 0.1 - 1 | Acute Tox. 2 (Oral), H300<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 |

Full text of H-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general : Call a 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.  
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. Rinse mouth.

#### 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.

### 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.

# D-Mannitol/L-Arabitol Assay Kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 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

| sodium azide (26628-22-8) |                                 |                                 |
|---------------------------|---------------------------------|---------------------------------|
| EU                        | Local name                      | Sodium azide                    |
| EU                        | IOELV TWA (mg/m <sup>3</sup> )  | 0.1 mg/m <sup>3</sup>           |
| EU                        | IOELV STEL (mg/m <sup>3</sup> ) | 0.3 mg/m <sup>3</sup>           |
| EU                        | Notes                           | Skin                            |
| EU                        | Regulatory reference            | COMMISSION DIRECTIVE 2000/39/EC |

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Hand protection:

Protective gloves

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

#### Eye protection:

Safety glasses

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

#### Skin and body protection:

Wear suitable protective clothing

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

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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



#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                            |                     |
|--------------------------------------------|---------------------|
| Physical state                             | : Solid             |
| Colour                                     | : No data available |
| Odour                                      | : None.             |
| Odour threshold                            | : No data available |
| pH                                         | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point                              | : No data available |
| Freezing point                             | : Not applicable    |

# D-Mannitol/L-Arabitol Assay Kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

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

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

Acids.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                             |                               |
|-----------------------------|-------------------------------|
| Acute toxicity (oral)       | : Oral: Harmful if swallowed. |
| Acute toxicity (dermal)     | : Not classified              |
| Acute toxicity (inhalation) | : Not classified              |

|                |                                 |
|----------------|---------------------------------|
| ATE CLP (oral) | 892.8571428571 mg/kg bodyweight |
|----------------|---------------------------------|

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

## SECTION 12: Ecological information

### 12.1. Toxicity

|                          |                                                                               |
|--------------------------|-------------------------------------------------------------------------------|
| Ecology - general        | : Harmful to aquatic life with long lasting effects. Harmful to aquatic life. |
| Acute aquatic toxicity   | : Not classified                                                              |
| Chronic aquatic toxicity | : Harmful to aquatic life with long lasting effects.                          |



# D-Mannitol/L-Arabitol Assay Kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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

## SECTION 14: Transport information

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

| ADR                                     | IATA           |
|-----------------------------------------|----------------|
| <b>14.1. UN 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. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:

|                     |                                                                 |
|---------------------|-----------------------------------------------------------------|
| Acute Tox. 2 (Oral) | Acute toxicity (oral), Category 2                               |
| Aquatic Acute 1     | Hazardous to the aquatic environment — Acute Hazard, Category 1 |

# D-Mannitol/L-Arabitol Assay Kit (Bottle 2)

## Safety Data Sheet

according to Regulation (EU) 2015/830

|                   |                                                                   |
|-------------------|-------------------------------------------------------------------|
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| H300              | Fatal if swallowed.                                               |
| H302              | Harmful if swallowed.                                             |
| H400              | Very toxic to aquatic life.                                       |
| H410              | Very toxic to aquatic life with long lasting effects.             |
| H412              | Harmful to aquatic life with long lasting effects.                |
| EUH032            | Contact with acids liberates very toxic gas.                      |

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*



# D-Mannitol/L-Arabitol Assay Kit (Bottle 1)

## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 28/11/2013

Revision date: 20/12/2017

Supersedes: 06/09/2016

Version: 1.3

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : D-Mannitol/L-Arabitol Assay Kit (Bottle 1)  
Product code : K-MANOL (Bottle 1)

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

##### 1.2.1. Relevant identified uses

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

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Megazyme  
Bray Business Park  
A98 YV29 Bray - Ireland  
T +353 12861220 - F +353 12861264  
[cs@megazyme.com](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 : EUH210 - Safety data sheet available on request.  
EUH032 - Contact with acids liberates very toxic gas.

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

No labelling required

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

| Name                                             | Product identifier                        | %     | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--------------------------------------------------|-------------------------------------------|-------|-----------------------------------------------------------------|
| Albumins, blood serum, BSA, Bovine Serum Albumin | (CAS-No.) 9048-46-8<br>(EC-No.) 232-936-2 | 1 - 5 | Acute Tox. 4 (Oral), H302                                       |

Full text of H-statements: see section 16

# D-Mannitol/L-Arabitol Assay Kit (Bottle 1)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 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.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

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

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### Hand protection:

Protective gloves

# D-Mannitol/L-Arabitol Assay Kit (Bottle 1)

## Safety Data Sheet

according to Regulation (EU) 2015/830

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

### Eye protection:

Safety glasses

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

### Skin and body protection:

Wear suitable protective clothing

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

### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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



### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                            |                     |
|--------------------------------------------|---------------------|
| Physical state                             | : Liquid            |
| Colour                                     | : No data available |
| Odour                                      | : None.             |
| Odour threshold                            | : No data available |
| pH                                         | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point                              | : Not applicable    |
| Freezing point                             | : No data available |
| Boiling point                              | : No data available |
| Flash point                                | : No data available |
| Auto-ignition temperature                  | : No data available |
| Decomposition temperature                  | : No data available |
| Flammability (solid, gas)                  | : Not applicable    |
| Vapour pressure                            | : No data available |
| Relative vapour density at 20 °C           | : No data available |
| Relative density                           | : No data available |
| Solubility                                 | : Soluble in water. |
| Log Pow                                    | : No data available |
| Viscosity, kinematic                       | : No data available |
| Viscosity, dynamic                         | : No data available |
| Explosive properties                       | : No data available |
| Oxidising properties                       | : No data available |
| Explosive limits                           | :                   |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

# D-Mannitol/L-Arabitol Assay Kit (Bottle 1)

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

Acids.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                                   |                  |
|-----------------------------------|------------------|
| Acute toxicity (oral)             | : Not classified |
| Acute toxicity (dermal)           | : Not classified |
| Acute toxicity (inhalation)       | : Not classified |
| Skin corrosion/irritation         | : Not classified |
| Serious eye damage/irritation     | : Not classified |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity            | : Not classified |
| Carcinogenicity                   | : Not classified |
| Reproductive toxicity             | : Not classified |
| STOT-single exposure              | : Not classified |
| STOT-repeated exposure            | : Not classified |
| Aspiration hazard                 | : Not classified |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                          |                                                                                                                         |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Ecology - general        | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Acute aquatic toxicity   | : Not classified                                                                                                        |
| Chronic aquatic toxicity | : Not classified                                                                                                        |

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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

## SECTION 14: Transport information

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

| ADR             | IATA           |
|-----------------|----------------|
| 14.1. UN number |                |
| Not applicable  | Not applicable |

# D-Mannitol/L-Arabitol Assay Kit (Bottle 1)

## Safety Data Sheet

according to Regulation (EU) 2015/830

| ADR                                     | IATA           |
|-----------------------------------------|----------------|
| <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. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:

|                     |                                              |
|---------------------|----------------------------------------------|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4            |
| H302                | Harmful if swallowed.                        |
| EUH032              | Contact with acids liberates very toxic gas. |
| EUH210              | Safety data sheet available on request.      |

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*