

# D-Mannose

## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 07/06/2011      Revision date: 30/10/2017  
Supersedes 09/09/2011

**M1392**

Version: 2.0

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

#### 1.1. Product identifier

Product form : Substance  
Trade name : D-Mannose  
EC-No. : 222-392-4  
CAS-No. : 3458-28-4  
Product code : M1392  
Formula : C6H12O6

#### 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  
Industrial/Professional use spec : For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

##### 1.2.2. Uses advised against

No additional information available

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

Duchefa Biochemie B.V.  
A. Hofmanweg 71  
2031 BH Haarlem - The Netherlands  
T +31(0)23-5319093 - F +31(0)23-5318027  
[info@duchefa.nl](mailto:info@duchefa.nl)

#### 1.4. Emergency telephone number

Emergency number : Supplier contact information:  
+31(0)23-5319093 (M-F 09:00-17:00)  
+31(0)6-30109355 (outside office hours)

| Organisation/Company  | Address   | Comment                                   |
|---|---|---|
| World Health Organization world directory of poison centres | <a href="http://apps.who.int/poisoncentres/">http://apps.who.int/poisoncentres/</a> | Consult website for a local poison centre |

### 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

No additional information available

#### 2.2. Label elements

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

No labelling applicable

according to Regulation (EU) 2015/830

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : D-Mannose  
CAS-No. : 3458-28-4  
EC-No. : 222-392-4

| Name      | Product identifier                        | %     |
|-----------|---|-------|
| D-Mannose | (CAS-No.) 3458-28-4<br>(EC-No.) 222-392-4 | >= 99 |

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Assure fresh air breathing.  
First-aid measures after skin contact : Wash skin with mild soap and water.  
First-aid measures after eye contact : Rinse with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing.  
First-aid measures after ingestion : 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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Dry chemical, CO<sub>2</sub>, or water spray or regular foam.

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

Hazardous decomposition products in case of fire : Under fire conditions, hazardous fumes will be present. CO<sub>x</sub>.

### 5.3. Advice for firefighters

Firefighting instructions : Prevent fire fighting water from entering the environment.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

General measures : Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

### 6.1.1. For non-emergency personnel

Measures in case of dust release : Avoid dust formation.

### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses.

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

Methods for cleaning up : Sweep up dry powder and dispose properly.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Handle in accordance with good industrial hygiene and safety procedures.

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

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Store at room temperature.

### 7.3. Specific end use(s)

For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Hand protection:

| Type   | Material             | Permeation        | Thickness (mm) | Standard |
|--------|----------------------|-------------------|----------------|----------|
| Gloves | Nitrile rubber (NBR) | 6 (> 480 minutes) | 0,11           | EN 374   |

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

Dust production: dust mask with filter type P1

## SECTION 9: Physical and chemical properties

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

Physical state : Solid

Appearance : Powder.

according to Regulation (EU) 2015/830

|   |                             |
|---|-----------------------------|
| Molecular mass                                | : 180,2 g/mol               |
| Colour  | : White.                    |
| Odour   | : characteristic.           |
| Odour threshold                               | : No data available         |
| pH  | : No data available         |
| Relative evaporation rate<br>(butylacetate=1) | : No data available         |
| Melting point                                 | : 133 - 140 °C              |
| 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)                     | : No data available         |
| Vapour pressure                               | : No data available         |
| Relative vapour density at 20 °C              | : No data available         |
| Relative density                              | : No data available         |
| Density                                       | : 1539 g/cm <sup>3</sup>    |
| Solubility                                    | : Readily 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                              | : No data available         |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

High temperature.

### 10.5. Incompatible materials

Strong oxidizers. Strong acids.

### 10.6. Hazardous decomposition products

When heated to decomposition, emits dangerous fumes. CO<sub>x</sub>.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                                   |                                     |
|-----------------------------------|-------------------------------------|
| Acute toxicity                    | : Not classified                    |
| Skin corrosion/irritation         | : May cause skin irritation         |
| Serious eye damage/irritation     | : May cause eye irritation.         |
| Respiratory or skin sensitisation | : May cause respiratory irritation. |
| 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

No additional information available

### 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

Additional information : Prevent entry to sewers and public waters. Avoid release to the environment

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

In accordance with ADR / IATA / IMDG

| ADR                                  | IMDG           | IATA           |
|--------------------------------------|----------------|----------------|
| <b>14.1. UN number</b>               |                |                |
| Not applicable                       | Not applicable | Not applicable |
| <b>14.2. UN proper shipping name</b> |                |                |
| Not applicable                       | Not applicable | Not applicable |
| Not applicable                       | Not applicable | Not applicable |

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

**14.6. Special precautions for user**

**. Overland transport**

Not applicable

**- Transport by sea**

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**

No REACH Annex XVII restrictions

D-Mannose is not on the REACH Candidate List

D-Mannose is not on the REACH Annex XIV List

**15.1.2. National regulations**

**Germany**

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

**Netherlands**

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

according to Regulation (EU) 2015/830

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Indication of changes:

|     |  |          |  |
|-----|--|----------|--|
| 1.4 | Emergency number   | Modified |  |
| 2   | Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD] | Removed  | Obsolete   |
| 8.2 | Hand protection  | Modified | Specified material, thickness, et cetera of gloves |

Abbreviations and acronyms:

|       |   |
|-------|---|
| ATE   | Acute Toxicity Estimate   |
| ADR   | European Agreement concerning the International Carriage of Dangerous Goods by Road               |
| BCF   | Bioconcentration factor   |
| CLP   | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008                       |
| DPD   | Dangerous Preparations Directive 1999/45/EC   |
| DSD   | Dangerous Substances Directive 67/548/EEC   |
| IATA  | International Air Transport Association   |
| IMDG  | International Maritime Dangerous Goods  |
| LC50  | Median lethal concentration   |
| LD50  | Median lethal dose  |
| LOAEL | Lowest Observed Adverse Effect Level  |
| NOAEC | No-Observed Adverse Effect Concentration  |
| PBT   | Persistent Bioaccumulative Toxic  |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| SDS   | Safety Data Sheet   |

Data sources

: ECHA (European Chemicals Agency). Manufacturer. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

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*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*