

Safety information sheet

Version: 1.0 EN

Dextrose monohydrate

Article number: D10239

This document has been prepared as a communication tool to inform downstream users about both the status of the substance under REACH and CLP, some of its essential properties and the guidance on safe use. An extended safety data sheet (SDS) is not required for this substance under Article 31 of REACH Regulation (EC) No 1272/2008, including the amending Regulation (EU) 2020/878. As a result, the format and content of this document does not comply with the framework for safety data sheets set out in Commission Regulation (EU) No 453/2010 amending Regulation (EC) No 1907/2006.

1 Identification of the substance/mixture and the company

1.1 Product identifier

Name	Dextrose monohydrate
CAS number	77938-63-7, 14431-43-7, 50-99-7
EC number	616-580-9, 604-408-5, 200-075-1
REACH registration	-

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

Description/use	The product is intended for use in the manufacture of food, pharmaceuticals, animal feed, plant care and industrial applications. For further information on specific applications, please contact us at the telephone number provided – we will be happy to put you in touch with the relevant specialist department.
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1.3 Details of the supplier providing the safety information sheet

Company	DistrEbution GmbH
Adress	Brookdeich 40 21029 Hamburg Germany
Telephone	+49 40 609 2387 60
E-Mail	info@distrebution.com

1.4 Emergency number

+49 40 609 2387 60 (Business hours: Mon - Thu: 8 a.m.- 5 p.m. / Fri: 8 a.m. – 4 p.m.)

2 Potential hazards

2.1 Classification of the substance or mixture

Not classified according to Chemicals Regulation (EC) Nr.1272/2008.

2.2 Label elements

Not subject to classification according to Regulation (EC) No 1272/2008.

2.3 Other hazards

Results of PBT and vPvB assessment

May form an explosive dust-air mixture if the concentration in the air exceeds the lower explosion limit. See section 9.2.2 for further information. The substance does not meet the PBT criteria (persistent, bioaccumulative, toxic) or the vPvB criteria (very persistent, very bioaccumulative).

3 Composition/information on ingredients

Chemical	Dextrose monohydrate
characterization:	
CAS number	77938-63-7, 14431-43-7, 50-99-7
EC number	616-580-9, 604-408-5, 200-075-1
REACH registration	-
Hazardous ingredients	-
Nanoparticles	No nanoparticles according to Regulation (EU) 2018/1881

4 First-aid measures

4.1 Description of first-aid measures

After eye contact

Rinse thoroughly with water for at least 15 minutes and consult an ophthalmologist.

After skin contact

Wash off with soap and water. Consult a doctor as soon as symptoms appear.

Inhalation or ingestion

Immediately move the affected person to fresh air. This product is not dangerous if swallowed. If symptoms occur and persist, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Dust may irritate the eyes and respiratory tract.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5 Firefighting measures

5.1 Extinguishing agents

Suitable extinguishing agents

Water spray jet

Unsuitable extinguishing agents

Dry extinguishing agent, foam

5.2 Special hazards arising from the substance or mixture

Fire or excessive heat may generate hazardous substances, see Section 10.

Combustible dusts: may form a mixture in the air.

5.3 Advice to firefighters

Avoid generating dust, as there is a risk of explosion. Do not use a water jet to extinguish the fire, as this may spread it.

Special protective equipment for firefighting

Firefighters must wear the prescribed protective equipment, including flame-retardant protective clothing, helmets with face protection, protective gloves, rubber boots and breathing apparatus for use in enclosed spaces.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personnel not trained for emergencies

For personal protective equipment, see Section 8.

6.2 Environmental precautions

Not considered to be harmful to the environment.

6.3 Methods and material for containment and cleaning up

If possible, collect the material using mechanical aids. Avoid generating dust, as there is a risk of explosion. Collect spilled material and dispose of it in accordance with the instructions in Section 13 of the Safety Data Sheet.

6.4 Reference to other sections

See section 7 for information on safe handling.

See section 8 for information on personal protective equipment.

See section 13 for information on disposal.

7 Handling and storage

7.1 Precautions for safe handling

For information on personal protective equipment, see Section 8.

For information on avoiding the risk posed by combustible dust, see Section 5.

7.2 Conditions for safe storage, including any incompatibilities

Avoid contact with oxidising agents. Store in a dry place at room temperature.

7.3 Specific end uses

No data available.

8 Exposure controls/personal protective equipment

8.1 Parameters to be monitored

Occupational exposure limits:

Chemical name	Type	Exposure limits	Source
Dust inhalable	MAK	4 mg/m ³	DFG-MAK-List (2019)
Dust alveolar	MAK	0,3 mg/m ³	DFG-MAK-List (2019)
Dust inhalable	AGW	10 mg/m ³	TRGS 900 (2019)
Dust alveolar	AGW	1,25 mg/m ³	TRGS 900 (2019)

8.2 Limitation and monitoring of exposure

8.2.1 Appropriate engineering controls

Ensure good ventilation of the workplace. Observe workplace exposure limits and minimise the possibility of inhaling dust.

8.2.2 Personal protective equipment

Respiratory protection

In case of inadequate ventilation or if dust inhalation is possible, wear suitable respiratory protection with particle filter (type P1) (EN 143).

Eye/face protection

Wear dust-proof safety goggles (EN 166)

Skin and body protection

Wear suitable protective clothing.

Hygiene measures

Handle the product in accordance with standard hygiene rules and safety instructions..

8.3 Environmental exposure controls

Not considered to be harmful to the environment.

9 Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Form	Powder
Colour	White
Odour	Odourless
pH value	4.7 (at 50% w/w in water)
Melting point	83°C
Boiling point	No data available
Flammability	Not classified
Flash point	No data available
Ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Water solubility	1000 g/l at 20°C
Partition coefficient n-octanol/water (log value)	3.24 (reference)
Vapour pressure	No data available
Density (20°C)	1.2 g/ml
Relative density	0.62
Relative vapour density	No data available

9.2 Other information**Information on physical hazard classes**

No data available

Other safety-relevant properties

Formation of explosive dust-air mixtures	INERIS – Data obtained from a similar product
MZT (minimum ignition temperature)	MITc (cloud): ~ 380 °C (EN 50281-2-1 / ASTM E1491) TDA (differential thermal analysis), Δt : ~ 330 °C
MZE (minimum ignition energy)	~ 360 mJ (EN 13821 / ASTM E2019, without inductance) Sensitive to the risk of ignition due to electrostatic discharge.
(dP/dt) _{max} (maximum pressure rise over time)	~ 235 bar/s (EN 14034-2 / ASTM E1226)
P _{max} (maximum explosion overpressure) ±10%	~ 5.5 bar (EN 14034-1 / ASTM E1226)
K _{st} value (±20%)	~ 63 bar/s (EN 14034-2 / ASTM E1226)
Dust explosion class	st 1 (VDI 3673)
Specific volume resistance	>10 ⁹ Ω.m (IEC 61241-2-2 / Group IIIB: non-conductive dust.)
Moisture	~ 8.5% (ISO 589)
M _w (median value)	~ 69 µm (ISO 13320)
Other information	BZ (combustion class): 2 (VDI 2263-1)
Oxidising properties	LEL (Lower Explosive Limit) : 30-60 g/m ³ (EN 14034-3 / ASTM E1515)
Evaporation rate	Not classified
Conductivity	Not applicable

10 Stability and reactivity**10.1 Reactivity**

Strong oxidising agents.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions are known under normal conditions of use.

10.4 Conditions to avoid

Avoid dust formation, as dust clouds may be explosive under certain conditions.

Avoid contact of dust with ignition sources.

10.5 Incompatible materials

Strongly oxidising substances.

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10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide.

11 Toxicological information

11.1 Information on hazard classes according to Regulation (EC) No. 1272/2008

Acute oral toxicity	LD50 (mouse): >2000 mg/kg: Not classified
Acute dermal toxicity	No data available
Acute inhalation toxicity	No data available
Skin corrosion/irritation	Not irritating
Serious eye damage/irritation	Not irritating
Respiratory/skin sensitisation	Not irritating
Germ cell mutagenicity	Negative (in vitro and in vivo)
Carcinogenicity	No effect from treatment
Reproductive toxicity	No effect from treatment
Specific target organ toxicity after single exposure	No data available
Specific target organ toxicity after repeated exposure	No effect from treatment
Aspiration hazard	No data available
Viscosity, kinematic	No data available

11.2 Information on other hazards

Endocrine-disrupting properties

No data available

12 Environmental information

12.1 Toxicity

LC50 (fish, 96 h): > 100 mg/l – not classified

EC50 (Daphnia, 48 h): > 100 mg/l – not classified

EC50 (algae, 72 h): > 100 mg/l – not classified

No chronic toxicity known.

12.2 Persistence and degradability

Easily biodegradable (73–81% after 28 days).

12.3 Bioaccumulative potential

Log Pow: –3.24

BCF: ~ 3

Low potential for bioaccumulation.

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12.4 Mobility in soil

Distribution between organic carbon and water phase (Koc): ~ 10

The product is readily biodegradable and has a low potential for bioaccumulation.

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

None known.

13 Disposal instructions

13.1 Waste treatment methods

Product

Waste disposal must be carried out in accordance with applicable regulations and taking into account the product characteristics at the time of disposal in suitable, approved facilities.

Packaging

Disposable packaging. Collect for recycling or disposal..

14 Transport information

14.1 UN number or ID number

No data available.

14.2 Proper UN shipping name

No data available.

14.3 Transport hazard class

No data available.

14.4 Packing group

No data available.

14.5 Environmental hazards

No data available.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk by sea according to IMO regulations

No data available.

15 Legislation

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

The substance is not included in the international regulations on hazardous substances (IMDG, ICAO/IATA, ADR/RID).

Not listed on the Candidate List of Substances of Very High Concern (SVHC) according to REACH Article 59.

No restrictions according to Annex XVII of the REACH Regulation (EC) No. 1907/2006.

Not included in Annex XIV of the REACH Regulation (substances subject to authorisation).

Not classified as a starting substance according to Regulation (EU) 2019/1148.

Classification according to AwSV (Germany)

Water hazard class (WGK) 1 – slightly hazardous to water (identification number: 4806).

International lists

Australia (AICS): listed

Canada (DSL): listed

China (IECSC): listed

EU (EINECS/ELINCS): listed

Japan (ENCS): listed

Korea (KECL): listed

Mexico (INSQ): listed

Philippines (PICCS): listed

Taiwan (TCSI): listed

USA (TSCA): listed

Vietnam (NGI): listed

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this substance.

16 Other information

16.1 Abbreviations and acronyms

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG - International Maritime Dangerous Goods Code

IATA - International Air Transport Association

ICAO-TI - International Civil Aviation Organization Technical Instructions

CLP - Classification, Classification, Labeling and Packaging of Substances and Mixtures

GHS - Globally Harmonized System of Classification and Labeling of Chemicals

EINECS - European Inventory of Existing Commercial Chemical Substances

CAS - Chemical Abstracts Service (registration number)

REACH - Registration, Evaluation, Authorization and Restriction of Chemicals, Registration, Evaluation, Authorization and Restriction of Chemicals

PBT - Persistent, Bioaccumulative and Toxic

vPvB - Very Persistent and Very Bioaccumulative

PNEC - Predicted No Effect Concentration PBT - Persistent, Bioaccumulative and Toxic

vPvB - Very Persistent and Very Bioaccumulative

16.2 SVHC

The substances on the ECHA list (<http://echa.europa.eu/en/candidate-list-table>) are neither expected to be present in our products nor are they intentionally used in the production process. Our products do not come into contact with these substances during production. However, it is not possible to completely rule out traces of these substances: due to natural impurities or raw material-related properties, an unintentional content of less than 0.1% cannot be completely ruled out.

16.3 Note for users

The information in this data sheet is based on our current knowledge at the time of the last revision. The user is responsible for checking the suitability and completeness of the information in relation to the specific use of the product.

This document does not constitute a guarantee for specific properties of the product. As we have no direct influence on the use of the product, the user is obliged to comply with all applicable laws, regulations and safety and hygiene provisions on his own responsibility. We accept no liability for improper use. Personnel entrusted with the handling of chemicals must be appropriately trained.