

SAFETY DATA SHEET DEXTROSE MONOHYDRATE ST

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

1.1 Product identifier:

Product name: DEXTROSE MONOHYDRATE ST, DESTROSIO MONOIDRATO ST

Synonyms:

Chemical name:

D-Glucose, Hydrate

REACH Registration No.:

Exempted

CAS-No.:

77938-63-7, 14431-43-7, 5996-10-1

EC No.:

200-075-1

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

| Identified uses: | Uses advised against: |
|---|-----------------------|
| Food. , Pharmaceuticals. , Industrial. Animal Feed. | No data available. |

1.3 Details of the supplier of the safety data sheet:

Supplier:

ROQUETTE FRERES
1 Rue de la Haute Loge
62136 LESTREM - France

Telephone: +33 3 21 63 36 00

Fax: +33 3 21 63 38 50

E-mail: sds@roquette.com

1.4 Emergency telephone number: NPIS (24/24) : 844 892 0111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

The product has not been classified as dangerous according to the legislation in force : CLP Regulation (EC) No 1272/2008.

2.2 Label elements:

Not applicable

2.3 Other hazards:

Dust may form an explosive mixture in the atmosphere.
Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria
Not fulfilling vPvB (very persistent/very bioaccumulative) criteria

SECTION 3: Composition/information on ingredients

3.1 Substance:

| Chemical name | Concentration | CAS-No. | EC No. | REACH Registration No. |
|--------------------|---------------|---|-----------|------------------------|
| D-Glucose, Hydrate | >=91% | 77938-63-7, 14431-43-7, 5996-10-1 | 200-075-1 | Exempted |

SECTION 4: First aid measures

4.1 Description of first aid measures:

Inhalation:

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Eye contact:

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin contact:

Wash with soap and water.

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| Ingestion: | Product not hazardous when ingested. |
| 4.2 Most important symptoms and effects, both acute and delayed: | Dust may irritate the eyes and the respiratory system. |
| 4.3 Indication of any immediate medical attention and special treatment needed: | |
| Treatment: | Treat symptomatically. |

SECTION 5: Firefighting measures

5.1 Extinguishing media:

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| Suitable extinguishing media: | Water spray. |
| Unsuitable extinguishing media: | Dry chemicals or foams. |

5.2 Special hazards arising from the substance or mixture: Fire or excessive heat may produce hazardous decomposition products. Dust may form an explosive mixture in the atmosphere. See Section 10.

5.3 Advice for firefighters:

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| Special Fire Fighting Procedures: | Prevent dust cloud. |
| Special protective equipment for fire-fighters: | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |

SECTION 6: Accidental release measures

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| 6.1 Personal precautions, protective equipment and emergency procedures: | See Section 8 of the SDS for Personal Protective Equipment. |
| 6.2 Environmental precautions: | Not regarded as dangerous for the environment. |
| 6.3 Methods and material for containment and cleaning up: | Remove material, as much as possible, using mechanical equipment. Prevent dust cloud. Collect and dispose of spillage as indicated in section 13 of the SDS. |
| 6.4 Reference to other sections: | For waste disposal, see section 13 of the SDS. |

SECTION 7: Handling and storage

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| 7.1 Precautions for safe handling: | See Section 8 of the SDS for Personal Protective Equipment. |
| 7.2 Conditions for safe storage, including any incompatibilities: | Avoid contact with oxidizing agents. Store in a dry place. Store at room temperature. |
| 7.3 Specific end use(s): | Food., Pharmaceuticals., Industrial., Animal Feed., |

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

Occupational exposure limits:

This product does not contain any component with occupational exposure limits

8.2 Exposure controls:

Appropriate engineering controls: Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear dust-resistant safety goggles where there is danger of eye contact.

Skin protection:

Hand Protection: No specific precautions.

Other: Wear suitable protective clothing.

Respiratory Protection: In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter (type P1).

Hygiene measures: Handle the product in accordance with the good hygiene practices and safety instructions.

Environmental exposure controls: Not regarded as dangerous for the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

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| Physical State: | solid |
| Form: | Powder |
| Water, moisture: | ~ 8 % |
| Color: | White |
| Odor: | Odorless |
| pH: | ~ 4.7 at 50 % |
| Melting Point: | ~ 83 °C |
| Boiling Point: | Not Applicable |
| Flash Point: | Not Applicable |
| Vapor pressure: | Not Applicable |
| Vapor density (air=1): | Not Applicable |
| Relative density: | ~ 0.62 |
| Solubility in Water: | ~ 1,000 g/l at 20 °C |
| Partition coefficient (n-octanol/water): | -3.24 - Literature Reference - |

Explosive properties: - INERIS -Data from similar product.

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| Autoignition Temperature: | ~ 380 °C (Godbert-Greenwald) Cloud. ~ 330 °C product in deposit. |
| MIE (Minimum ignition energy): | ~ 360 mJ (EN 13821 (Without Inductance)) Sensitive to ignition by an electrostatic phenomenon. |
| MRP (Maximum Rate of Pressure): | ~ 235 bar/s (EN 14034-2) |
| MaxP (Maximum Pressure) ±10%: | ~ 5.5 bar (EN 14034-1) |
| Kst (Dust Explosion Description Number) ±20%: | ~ 63 barm/s (EN 14034-2) |
| Explosion Class: | st 1 (VDI 3673) |
| Volume resistivity: | > 10 ⁹ Ω.m (CEI 1241-2-2) |
| Moisture: | ~ 8.5 % (ISO 589) |
| Particle Size: | ~ 69 µm (NFX 11-666) |
| Other Data: | Combustion index : 2 (VDI 2263-1) |

9.2 Other information:

Conductivity: ~ 10 µS/cm (at 50%)

SECTION 10: Stability and reactivity

- 10.1 Reactivity:** Strong oxidizing agents.
- 10.2 Chemical stability:** Material is stable under normal conditions.
- 10.3 Possibility of hazardous reactions:** No hazardous reactions under ordinary conditions of use and storage.
- 10.4 Conditions to avoid:** Prevent dust cloud. Dust clouds may be explosive under certain conditions.
- 10.5 Incompatible materials:** Strong oxidizing substances.
- 10.6 Hazardous decomposition products:** Carbon Monoxide. Carbon Dioxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity :

| Test / Substance | Species | Type / Result | Exposure | Remarks |
|-------------------------------|---------|--------------------------------------|----------|--------------------------|
| OECD 423 Similar substance | Mouse | LD50 - Oral : >2000 mg/kg Non toxic. | | - Literature Reference - |

Skin irritation. :

| Test / Substance | Species | Result | Exposure | Remarks |
|-------------------------------|---------|-------------------------|----------|--------------------------|
| OECD 431 Similar substance | Human | In vitro Not Irritating | 1 h | - Literature Reference - |

Serious eye irritation :

| Test / Substance | Species | Result | Exposure | Remarks |
|-------------------------------|----------------|----------------|----------|--------------------------|
| OECD 437 Similar substance | Bovine cornea. | Not Irritating | 4 h | - Literature Reference - |
| OECD 405 Similar substance | Rabbit | Not Irritating | 72 h | - Literature Reference - |

Sensitization :

| Test / Substance | Type | Species | Result | Remarks |
|-------------------------------|---------|---------|-----------------|--------------------------|
| OECD 429 Similar substance | In vivo | Mouse | Non-Sensitising | - Literature Reference - |

Repeated dose toxicity :

| Test / Substance | Species | Result | Exposure | Remarks |
|-------------------------------|---------|-------------------------------|-------------|--------------------------|
| OECD 453 Similar substance | Rat | No treatment related effects. | 52 Week(s). | - Literature Reference - |

Mutagenesis :

| Test / Substance | Type | Species | Result | Remarks |
|--------------------------------------|----------|----------------|----------|---------|
| OECD 473 Similar substance | In vitro | Hamster | Negative | |
| OECD 471 (Ames) Similar substance | In vitro | S. typhimurium | Negative | |
| OECD 474 Similar substance | In vivo | Mouse | Negative | |

Carcinogenicity :

| Test / Substance | Species | Route of Exposure / Exposure | Result | Remarks |
|-------------------------------|---------|------------------------------|-------------------------------|--------------------------|
| OECD 453 Similar substance | Rat | Oral 2 Year(s) | No treatment related effects. | - Literature Reference - |

Reproductive toxicity :

| Test / Substance | Species | Route of Exposure / Exposure | Result | Remarks |
|-------------------------------|---------|------------------------------|--|--------------------------|
| OECD 416 Similar substance | Rat | Oral 12 Week(s). | No treatment related effects. | |
| OECD 414 Similar substance | Hamster | Oral 14 day(s) | No treatment related effects. NOAEL : 1,200 mg/kg | - Literature Reference - |

SECTION 12: Ecological information

12.1 Toxicity:

Acute toxicity:

| Test / Substance | Species | Type/Result | Exposure | Remarks |
|-------------------------------|---------------------------------|---------------------------------|----------|--------------------------|
| OECD 203 Similar substance | Common Carp | LC50 : > 100 mg/l Non toxic. | 96 h | - Literature Reference - |
| OECD 202 Similar substance | Daphnia magna | LC50 : > 100 mg/l Non toxic. | 48 h | - Literature Reference - |
| OECD 201 Similar substance | Pseudokirchneriella subcapitata | LC50 : > 100 mg/l Non toxic. | 72 h | - Literature Reference - |

Chronic Toxicity:

No data available.

12.2 Persistence and degradability:

| Test / Substance | Result | Remarks |
|--------------------------------|---|--------------------------|
| OECD 301b Similar substance | 73 - 81 % / 28 d The product is readily biodegradable. | - Literature Reference - |

12.3 Bioaccumulative potential:

| Test / Substance | Log Pow (n-Octanol/Water Partition Coefficient) | Bioconcentration Factor (BCF) / Bioaccumulation | Remarks |
|------------------|---|---|------------------------------------|
| Glucose | -3.24 | Not determined. | Potential to bioaccumulate is low. |

12.4 Mobility in soil:

This material is readily biodegraded and is not likely to bioconcentrate.

12.5 Results of PBT and vPvB assessment:

Exempted

12.6 Other adverse effects:

None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

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| Product: | Dispose of waste in an appropriate authorised treatment facility in accordance with regulations in force and product characteristics at time of disposal. |
| Packaging material: | Single use packaging. Collect for salvage or disposal. |

SECTION 14: Transport information

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

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| 14.5 Environmental hazards: | Not regulated. |
| 14.6 Special precautions for user: | No special precautions. |
| 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: | Not applicable. |

SECTION 15: Regulatory information

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

This Safety Data Sheet is not mandatory according to the requirements of regulation (EC) N°1907/2006 (REACH) article 31 and is provided for information.

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| 15.2 Chemical safety assessment: | Exempted |
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SECTION 16: Other information

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| Revision Information: | Not relevant. |
| Key literature references and sources for data: | ECHA registered substances database. HSDB Database. |

Abbreviations and acronyms used in the SDS.:

LC50 : lethal concentration 50%
LD50: lethal dose 50%
NOAEL : No Observed Adverse Effect Level
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very persistent and very bioaccumulative substance.

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| Disclaimer: | <p>The information provided in this Safety Data Sheet (SDS) relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. It is the responsibility of the user to be aware of and to follow the regulations applying to our product for its possession, handling and use.</p> <p>The information given is designed only as a guidance and is not to be considered a warranty or quality specification.</p> <p>All information and instructions provided in this SDS are based on the current state of our knowledge at the latest revision date indicated.</p> |
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