



Specification

Product Name: Dextrose
Product Code: SPEC0021

Description:

Our Dextrose Powder (also known as Grape Sugar) is a premium quality refined powder, a natural occurring form of glucose which is a simple monosaccharide found in plants. It has a wide variety of uses which include adding to juices, shakes, cocktails and beverages. Use in cakes and baking to replace sugar (it is 70% as sweet as basic sugar) and is very hygroscopic. It provides flexibility to fondant icing and inhibits crystallization in ice creams and sorbets and has a high Glycaemic Index.

Specifications:

Characteristics:

Chemical-physical test	Unit of measure	Specification Range	Method
Moisture:	%	< 9.1	Oven
Dextrose	%/ ds	>= 99.5	HPLC
DP2+	%/ ds	<= 0,5	HPLC
Specific optical rotation:	Degrees	52.6 – 53.2	Polarimeter
Sulfites (SO ₂):	Mg/kg	<=10	Iodine Titration
pH – 50 % ds		3,0 – 6,0	pH-meter
Vibrational sieve > 500 µm:	%	< 10 %	Vibrational Sieve
Arsenic:	mg/kg	<= 1	AAS
Chlorides:	mg/kg	<= 180	AAS
Lead:	mg/kg	<= 0.1	AAS
Geographical Origin	France		
Botanical Origin	Wheat / Corn		
GMO Status	Not genetically modified		

Microbiological test	Unit of measure	Specification Range	Method
Total viable count	cfu / g	max. 1000	Membrane filtration
Total Yeasts	cfu / g	max. 10	Membrane filtration
Total Moulds	cfu / g	max. 10	Membrane filtration
E. coli	/ 1 g	Not detectable	Pour Plate
Salmonella	/ 25 g	Not detectable	Plate

Ingredients:

Dextrose Powder

Dietary Information:

Suitable for Vegans & Vegetarians. Non-GMO, Gluten Free, Non-Irradiated.

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Nutritional Information:

Based on typical content/100g: Energy: 1541Kj 368kCal, Fat: 0g, Carbohydrate: 92g, Of which sugars: 92g, Protein: 0g, Salt: 0g.

Storage:

Store in a clean and dry environment.

Packaging:

Size	EAN
250g	5056191001130
500g	5056191001147
1kg	5056191001154
5kg	5056191008863
10kg	5056191008870

Shelf Life:

60 months from production date.

Allergen Declaration

Allergen	Contains (Y/N)
Cereals containing Gluten	N
Crustaceans	N
Eggs	N
Fish	N
Peanuts	N
Soybeans	N
Milk	N
Nuts	N
Celery	N
Mustard	N
Sesame Seeds	N
Sulphur Dioxide and Sulphites (at concentration of more than 10mg/kg or 10mg/L in terms of Sulphur Dioxide)	N
Lupin	N
Molluscs	N



Material Safety Data Sheet

1: Substance/Preparation and Company Identification:

1.1 – Product Identifier

Product Name: Dextrose

Product Code: SPEC0021

- Chemical name: D-Glucose, Hydrate

- Chemical formula:

- Synonyms: Not applicable

- REACH Reg. # (a):

(a): If REACH registration numbers do not appear, the substance is exempt from registration.

1.2 – Relevant identified uses of the substance or mixture

- Use of the Substance/Mixture: Food, Pharmaceuticals, Industrial, Animal Feed.

1.3 – Suppliers Details

Special Ingredients Ltd, 4 Foxwood View, Chesterfield, S41 9RN. Tel: 0044 (0)1246 906247.

E-mail address: <https://specialingredients.co.uk/pages/contact>,

Emergency Telephone Contact: 07387 330318.

2: Hazard 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 1272/2006

2.2 – Label elements

Not applicable

2.3 – Other hazards

May form explosible dust-air mixture if airborne above the Minimum Explosive Concentration, see Section 9.2.2 for more information.

Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria

Not fulfilling vPvB (very persistent/very Bioaccumulative) criteria

3: Composition and Information on Ingredients:

3.1 – Substances

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.
D-Glucose, Hydrate	>=91%	77938-63-7, 14431-43-7, 50-99-7	616-580-9, 604-408-5, 200-075-1	Exempted (Annex IV)

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. Get medical attention if symptoms occur.

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Ingestion: Product not hazardous when ingested. Get medical attention if symptoms occur.

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.

5: Firefighting Measures:

5.1 – Extinguishing media

Suitable extinguishing media: Water spray.

Unsuitable extinguishing media: Dry chemicals or foams. Straight streams of water.

5.2 – Special hazards arising from the substance or mixture

Fire or excessive heat may produce hazardous substances.

See Section 10.

Combustible dusts: may form an explosive mixture in the air.

5.3 – Advice for firefighters

Special Fire Fighting Procedures: Avoid dust clouds to prevent explosion risk. Do not use water jet as an extinguisher as this would spread the fire.

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.

6: Accidental Release Measures:

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. Avoid dust cloud to prevent explosion risk. 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.

7: Handling And Storage:

7.1 – Precautions for safe handling

See Section 8 of the SDS for Personal Protective Equipment. See Section 5 of the SDS for prevention of combustible dust risk.

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. Plant Care.

8: Exposure Controls/ Personal Protection:

8.1 – Control parameters

Occupational exposure limits: This product does not contain any components >1% with specific occupational exposure limits.

Chemical Name	Type	Exposure Limit Values	Source
Dust – Inhalable particles	TWA	10 mg/m ³	Italy. Occupational Exposure Limits (2012)
Dust – Respirable particles	TWA	3 mg/m ³	Italy. Occupational Exposure Limits (2012)

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-proof safety goggles where there is a risk of eyes contact. (EN 166)

Skin protection –

- Hand protection: No specific hand protection noted, but gloves may still be advisable.
- 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). (EN 143)

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.

9: Physical and Chemical Properties:

9.1 – Information on basic physical and chemical properties

Physical state: Solid

Form: Powder

Water, moisture: ~ 8 %

Colour: White

Odour: Odourless

Odour threshold: No data available

Melting point: ~ 83°C

Boiling point: Not applicable or not available

Flash point: Not applicable or not available

Decomposition Temperature: No data applicable

pH: ~ 4,7 at 50% w/w in water

Flammability (solid,gas): NC: Not Classified

Solubility in Water: ~ 1000 g/l at 20°C

Partition coefficient (n-octanol/water): -3,24 – Literature Reference -

Vapor pressure: Not Applicable

Relative density: ~ 0,62

Vapor density (air=1): Not Applicable

9.2 – Other information

9.2.1: Information with regard to physical hazard classes:

No data available.

9.2.2: Other safety characteristics

Formation of explosible dust/air mixtures: INERIS - Data from similar product.

MIT (Minimum ignition temperature):

MITc (cloud): ~ 380 °C (EN 50281-2-1 / ASTM E1491)

TDA (Differential Thermal Analysis), Δt : ~ 330 °C

MIE (Minimum Ignition Energy):

~ 360 mJ (EN 13821 / ASTM E2019, Without Inductance)

Sensitive to the risk of inflammation by an electrostatic discharge.

(dP/dt)_{max} (Maximum Rate of explosion Pressure rise):

~ 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.m/s (EN 14034-2 / ASTM E1226)

Dust Explosion Class:

st 1 (VDI 3673)

Volume resistivity:

>10² Ω.m (IEC 61241-2-2 / Group IIIB non-conductive dust.)

Moisture:

~ 8.5 % (ISO 589)

M_v (Median value):

~ 69 μm (ISO 13320)

Other Data:

BZ (Combustion class): 2 (VDI 2263-1)

MEC (Minimum Explosible Concentration): 30-60 g/m³ (EN 14034-3 / ASTM E1515)

Oxidizing properties: NC: Not Classified

Evaporation Rate: Not Applicable

Conductivity: ~ 10 μS/cm (at 50% w/w in water)

The data reported in this section does not take the place of specifications.

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

Avoid dust cloud to prevent explosion risk. Dust clouds may explode under certain conditions. Avoid dust close to ignition sources.

10.5 – Incompatible materials

Strong oxidising substances.

10.6 – Hazardous decomposition products

Carbon Monoxide. Carbon Dioxide.

11: Toxicological Information:

IRRITANT MIXTURE. Splashes in the eyes can cause irritation.

IRRITANT MIXTURE. Its repeated or prolonged contact with the skin or mucous membranes can cause irritant symptoms such as reddening of the skin, blisters, or dermatitis. Some of the symptoms may not be immediate. They can cause allergic reactions on the skin.

11.1 – Information on hazard classes as defined in Regulation (EC) 1272/2008.**Acute toxicity:**

Test/ Substance	Species	Type / Result	Exposure	Remarks
OECD 423 Similar substance	Mouse	LD50 – Oral : >2000 mg/kg Not classified		- 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-sensitizing	- Literature Reference -

Repeated dose toxicity:

Test/ Substance	Species	Result	Exposure	Remarks
OECD 453	Rat	No treatment related	52 Week(s)	- Literature



Similar substance		effects		Reference -
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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 -

Mutagenesis:

Test/ Substance	Type	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 : 1200 mg/kg	-

12: Ecological Considerations:**12.1 – Toxicity****Acute toxicity:**

Test/ Substance	Species	Type / Result	Exposure	Remarks
OECD 203 Similar substance	Common Carp	LD50 – Oral : > 100 mg/l Not classified	96 h	- Literature Reference -
OECD 202 Similar substance	Daphnia magna	EC50 – Oral : > 100 mg/l Not classified	48 h	- Literature Reference -
OECD 201 Similar substance	Pseudokirchneriella subcapitata	EC50 – Oral : > 100 mg/l Not classified	72 h	- Literature Reference -

Chronic Toxicity: No data available

12.2 – Persistence and degradability

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

**12.3 – Bioaccumulative potential.**

Test/ Substance	Low Pow (n-Octanol/Water Partition Coefficient)	Bioconcentration Factor (BCF) / Bioaccumulation	Remarks
Glucose	-3,24	~ 3	Potential to bioaccumulate is low

12.4 – Mobility in soil

Test/ Substance	Medium	Organic Carbon Partition Coefficient (Koc)	Remarks
QSAR Glucose		~ 10	This material is readily biodegradable and is not likely to bioconcentrate.

12.5 – Results of PBT and vPvB assessment.

Exempted

12.6: Endocrine disrupting properties

No data available

12.7: Other adverse effects

None known

13: Disposal considerations:**13.1 – Waste treatment methods**

Produce: 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.

14: Transport Information:**14.1 – UN number**

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

14.2 – UN Proper Shipping Name

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

14.3 – Transport hazard class(es)

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

14.4 – Packing group

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

14.5 – Environmental hazards

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

**14.6 – Special precautions for user**

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

14.7 – Maritime transport in bulk according to IMO instruments

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

15: Regulatory Information:**15.1 – Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU. REACH Article 59, candidate List of Substances of Very High Concern (SVHC): Not listed

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use: Not Applicable.

Regulation (EC) No. 1907/2006, Reach Annex XIV Substances subject to authorisation, as amended: Not applicable.

Turkey, KKDİK Regulation (Turkey REACH): Exempted ANNEX IV

REGULATION (EU) 2017/542 (CLP Annex VIII): harmonised information relating to emergency health response and preventative measures:

UFI Number: Not Applicable

International Inventories:

Australia. Inventory of Chemical Substances (AICS): Listed

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL): Listed

China. Inventory of Existing Chemical Substances (IECSC): Listed

EU. European Inventory of Existing Commercial Chemical Substances (EINECS): Listed

Japan. Inventory of Existing & New Chemical Substances (ENCS): Listed

Japan. Industrial Safety & Health Law (ISHL): Listed

Korea. Existing Chemicals Inventory (KECI): Listed

Mexico. National Inventory of Chemical Substances (INSQ): Listed

New Zealand. Inventory of Chemicals (NZIoC): Listed

Philippines. Inventory of Chemicals and Chemical Substances (PICCS): Listed

Taiwan. Existing Chemicals Inventory (TCSI): Listed

US. Toxic Substances Control Act (TSCA): Listed

Vietnam. National Chemical Inventory (NCI): Listed

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.

15.2 – Chemical safety assessment

Exempted.

16: Other Information:

The information contained in this data sheet is, to the best of our knowledge, true and accurate, but any recommendations or suggestions which may be made are without guarantee, since the conditions

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of use are beyond our control. We do not accept any liability whatsoever, however arising, which results directly or indirectly from the use of the product.