



Tereos Starch & Sweeteners
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CALDIC BELGIUM N.V.
TERLOCHTWEG 1
B-2620 HEMIKSEM

Customer Product Specification

MERITOSE 200

Definition

This product is a dextrose monohydrate, produced by enzymatic hydrolysis of starch, followed by purification, concentration, crystallisation and drying. It is a white powder with a refreshing sweet taste and bland odour.

Characteristics

Test		Unit of measure	Specification range	Typical value	Method
Moisture	(*)	%	7,00 - 9,00	Oven	102
Dextrose	(*)	%/ds	>= 99,5	HPLC	210
DP2+		%/ds	<= 0,5	HPLC	210
Sulfites (SO ₂)	(*)	mg/kg	<= 10,0	Iodine titration	901
pH - 50 % ds	(*)		3,00 - 6,00	pH-meter	922
Conductivity at 28 °Brix		µS/cm	<= 20	Conductivity meter	1202
Black points (in 100g)		n/100g	<= 10	Visual	601
Bulk density loose		g/dm ³	550 - 850	Gravimetric	1101
Vibrational sieve > 53 µm		%	>= 70,0	Vibrational sieve	1113
Vibrational sieve > 150 µm		%	10,0 - 80,0	Vibrational sieve	1113
Vibrational sieve > 250 µm		%	<= 40,0	Vibrational sieve	1113
Total mesophylic count (n/10g)		n/10g	<= 1000	Membrane filtration	1922
Yeasts (n/10g)		n/10g	<= 100	Membrane filtration	1925
Moulds (n/10g)		n/10g	<= 100	Membrane filtration	1925
GMO status	(*)		Not Genetically Modified		

The characteristics indicated with (*) are reported on the Certificate of Analysis/Conformity.

Collaborators from our Customer Service Center and our Account Managers are at your disposal for all questions relating to our products and services.

In the case of deliveries already planned, mutually agreed changes to these Customer Product Specifications will be applied within a maximum time-frame of 5 working days.

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Shelf life

Total product shelf life of bulk delivered material is 24 months after production date if stored under recommended storage conditions.

Total product shelf life in unopened packaging is 24 months after production date if stored under recommended storage conditions. It is printed as 'Best before date' on the packaging.

Storage conditions

Store in a well ventilated, clean and dry environment, away from odorous materials, at < 60 % relative humidity at ambient temperature. Avoid pressure on the bags. The pallets must not be piled up too high.

Labeling

Advised labeling: Dextrose.

General information

This product complies with the requirements of legislation in force in the EU on foods and food ingredients. These include regulations on labeling, hygiene, additives, contaminants and pesticides.

All affiliates of Tereos Starch & Sweeteners Europe are ISO 9001:2008 certified by an external body.

Affiliates and Associated Companies: Tereos Starch & Sweeteners Europe SAS, Tereos Starch & Sweeteners Belgium N.V., Tereos Starch & Sweeteners Iberia S.A.U., Tereos Starch & Sweeteners LBN SAS, Sedamyl S.p.a., Sedalcol UK Ltd.

End of Document

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Customer Product Specification

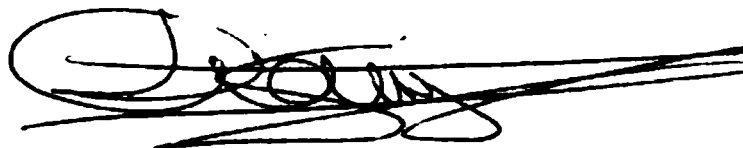
MERITOSE 200

This Customer Product Specification document is part of the sales agreement between Tereos Starch & Sweeteners Belgium NV and its Customer.

Please return this duly signed document to our Quality Group Department in Aalst (Belgium), within one month from the date of posting, or please provide us with your written comments if any. In case we do not receive any reaction within above-mentioned period, the content of this document shall apply to all orders and deliveries between Tereos Starch & Sweeteners Belgium NV and its Customer.

For Approval CUSTOMER
Name and Signature

For approval TEREOS
Name and Signature



Mr. Sacha Diane
TSSE Quality Manager
Tereos Starch & Sweeteners Europe
Acting on behalf of the producing plant.
Tel. +32 (0) 53 73 32 85

ALLERGEN LIST

MERITOSE SERIES (mixed origin, wheat and maize)

ALLERGEN LABELLING based on EU DIRECTIVES 2003/89/EC and 2007/68/EC

	Product thereof / containing	Labelling
Cereals containing gluten and products thereof (1) (2)	yes	no
Crustaceans and products thereof	no	no
Eggs and products thereof	no	no
Fish and products thereof	no	no
Peanuts and products thereof	no	no
Soybeans and products thereof	no	no
Milk and products thereof (including lactose)	no	no
Nuts and products thereof	no	no
Celery and products thereof	no	no
Mustard and products thereof	no	no
Sesame and products thereof	no	no
Sulphur dioxide and sulphites expressed as SO ₂ (3)	yes	no
Lupins and products thereof	no	no
Molluscs and products thereof	no	no

- (1) GLUTEN FREE conform <20 ppm/ds: complies with the requirements for the 'gluten-free' labelling of foods in Codex Standard 118-1979 (rev. 2008) and in Commission Regulation (EC) N° 41/2009
- (2) Further to Directive 2007/68/EC of 28 November 2007, wheat based maltodextrins, glucose syrups, dextrose and products thereof are permanently exempted from the indication of 'wheat' origin in the context of the requirements on the labelling of allergens implemented by Directive 2003/89/EC
- (3) SO₂ <10 mg/kg in Syral product unless otherwise stated on your Customer Product Specification (CPS)
Based on Directive 2003/89/EC concerning the requirements with regard to allergen labelling, the presence of sulphite needs to be indicated on the label of the final food if the concentration in the final food is more than 10 mg/kg

ALLERGEN LIST

MERITOSE SERIES (mixed origin, wheat and maize)

ALLERGEN INFORMATION FOR THE FOOD DATABASE (LeDa/ALBA list)

FORMAT : FOOD DATABASE THE NETHERLANDS - vs 2.0 2011

LeDa code	GS1 code	Allergen	Recipe without (Z)	Recipe contains (M)	May contain (and recipe without) (K)	Unknown (O)
LEGAL ALLERGENS						
1.1	UW	Wheat	x			
1.2	NR	Rye	x			
1.3	GB	Barley	x			
1.4	GO	Oats	x			
1.5	GS	Spelt	x			
1.6	GK	Kamut	x			
1	AW	Gluten	no cross contamination			
2.0	AC	Crustaceans	x			
3.0	AE	Egg	x			
4.0	AF	Fish	x			
5.0	AP	Peanuts	x			
6.0	AY	Soy	x			
7.0	AM	Milk	x			
8.1	SA	Almonds	x			
8.2	SH	Hazelnuts	x			
8.3	SW	Walnuts	x			
8.4	SC	Cashews	x			
8.5	SP	Pecan nuts	x			
8.6	SR	Brazil nuts	x			
8.7	ST	Pistachio nuts	x			
8.8	SM	Macadamia / Queensland nuts	x			
8	AN	Nuts	no cross-contamination			
9.0	BC	Celery	x			
10.0	BM	Mustard	x			
11.0	AS	Sesame	x			
12.0	AU	Sulphur dioxide and sulphites (E220-E228) at concentrations of more than 10 mg/kg or 10 mg/l, expressed as SO ₂ (a)	x			
13.0	NL	Lupin	x			
14.0	UM	Molluscs	x			
ADDITIONAL ALLERGENS						
20.0	ML	Lactose	x			
21.0	NC	Cocoa	x			
22.0	MG	Glutamate (E620-E625)	x			
23.0	MK	Chicken meat	x			
24.0	NK	Coriander	x			
25.0	NM	Corn / maize	x			
26.0	NP	Legumes	x			
27.0	MC	Beef	x			
28.0	MP	Pork	x			
29.0	NW	Carrot	x			

(a) SO₂ <10 mg/kg unless otherwise stated on your Customer Product Specification (CPS)
Then it becomes 'Recipe contains (M)' for this product.

MATERIAL INFORMATION SHEET
MERITOSE 200

Parameter	Unit		Value
Dry Matter	%	C	92,0
Moisture	%	M	8,0
Water Activity	-	C	0.64
Energy value	kJ	C	1564
Energy value	kcal	C	368
Protein	g	L	<0,02
Carbohydrate	g	M	92,0
of which			
sugars	g	M	91.5
<i>dextrose</i>	g	M	91.5
<i>fructose</i>	g	M	0,0
<i>maltose</i>	g	M	0,0
<i>saccharose</i>	g	L	0,0
polyols	g	L	0,0
starch	g	M	0,0
Fibre	mg	L	0,0
Fat	g	L	0,0
of which			
saturates	g	L	ND
mono-unsaturates	g	L	ND
polyunsaturates	g	L	ND
cholesterol	g	L	ND
transfatty acids	g	L	ND
Minerals			
sodium	mg	M	<10
salt	mg	C	<25,0
calcium	mg	M	<5,0
chloride	mg	M	<20
phosphorus	mg	M	6,0
potassium	mg	M	<10,0
iron	mg	M	<0,3
magnesium	mg	M	<2,0
zinc	mg	M	<0,4
copper	mg	M	<0,1
manganese	mg	M	<0,01
fluoride	mg	M	<2,0
selenium	µg	M	<20
chromium	µg	M	<5,0
molybdenum	µg	M	<10,0
iodine	µg	M	<20,0

Parameter	Unit		Value
Vitamins			
vitamin A	µg	L	ND
vitamin C	mg	L	ND
vitamin D	µg	L	ND
vitamin E	mg	L	ND
vitamin K	µg	L	ND
thiamin	mg	L	ND
riboflavin	mg	L	ND
niacin	mg	L	ND
vitamin B6	mg	L	ND
folic acid	µg	L	ND
vitamin B12	µg	L	ND
biotin	µg	L	ND
pantothenic acid	mg	L	ND

Conversion factors for the calculation of energy

Based on Regulation (EU) n°1169/2011 on the provision of food information to consumers

carbohydrates (except polyols)	4.0	kcal/g	17.0	kJ/g
polyols	2.4	kcal/g	10.0	kJ/g
protein	4.0	kcal/g	17.0	kJ/g
fat	9.0	kcal/g	37.0	kJ/g
fibre	2.0	kcal/g	8.0	kJ/g
alcohol	7.0	kcal/g	29.0	kJ/g

Remarks

All values are expressed per 100 g

Values are typical values

NA Not applicable

C Calculated

M Measured

L Literature

NM Not measured

ND Not detectable

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Safety Data Sheet

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

A) Product identifier:

- Chemical name: D-Glucose monohydrate
 - Chemical formula: $C_6H_{14}O_7$
 - Synonyms: Not applicable
 - REACH Reg. # (a):
- (a): If REACH registration numbers do not appear, the substance is exempt from registration.

B) Relevant identified uses of the substance or mixture:

- Use of the Substance/Mixture: General use in following sectors: Food and nutritional, Animal feed, Pharmaceutical, Cosmetics, Chemicals, Industrial and Non-food

C) Details of the supplier of the safety data sheet:

- Company identification: see header
- Email address: groupsafetymanager@tereos.com
- Telephone number: see header
- Emergency phone number (24h): +32 53 73 31 23

Safety Data Sheet

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SECTION 2. HAZARDS IDENTIFICATION

A) Classification according to CLP Regulation (EC)1272/2008:

- The substance does not fulfil classification criteria of the CLP Regulation. The substance is not classified as dangerous under anticipated conditions of normal use.

B) Label elements according to CLP Regulation (EC)1272/2008:

- Not applicable

C) Classification according to Directive 67/548/EC:

- | | |
|-----------------|---|
| - General: | Not classified as dangerous under anticipated conditions of normal use. |
| - Inhalation: | Product can produce a nuisance dust which should be maintained below a time weighted average of 10 mg/m ³ (ACGIH TLV). |
| - Skin contact: | Repeated or prolonged skin contact may result in mild irritation. |
| - Eye contact: | Particulates may scratch eye surfaces and cause mechanical irritation |
| - Ingestion: | Ingestion may cause irritation of the gastrointestinal track |

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

- | | |
|-------------------------------|--|
| - Substance/Mixture: | Substance |
| - Components: | D-glucose monohydrate |
| - EINECS/ELINCS NUMBER: | 200-075-1 |
| - CAS number: | 14431-43-7 |
| - Concentration (Volume): | See product specification sheet for detailed information |
| - Classification (Directive): | Not classified as dangerous |
| - Classification (CLP): | Not classified as dangerous |

Safety Data Sheet

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SECTION 4. FIRST AID MEASURES

- | | |
|-------------------|---|
| - General advise: | Seek medical attention if irritation develops after first aid application. |
| - Inhalation: | Move people from the exposure to fresh air |
| - Skin contact: | Wash skin with soap and water |
| - Eye contact: | Remove particulates by irrigating with eye wash solution or clean water, holding eyelids apart. |
| - Ingestion: | Wash mouth and flush throat upto the stomach. |

SECTION 5. FIRE-FIGHTING MEASURES

No special procedures are required

- | | |
|------------------------|---|
| - Extinguishing media: | Carbon dioxide, dry chemicals, foam, water spray (fog). |
|------------------------|---|

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | |
|------------------------------|---|
| - Personal precautions: | None under normal conditions. Avoid prolonged inhalation of dust. |
| - Environmental precautions: | Biodegradable, increases BOD & COD (see point 12) |
| - After spillage/leakage: | Sweep or shovel spills into appropriate container for disposal.
Avoid making dust.
Vacuum with explosion proof vacuum cleaner.
Can be hosed down in normal sewage service by a waste water treatment plan.
Risk of deposits of suspended product. |

SECTION 7. HANDLING AND STORAGE

- | | |
|-------------|--|
| - Handling: | Use care to minimise dust generation; avoid dispersing the powder in the air.
Prevent build up of powder on surfaces; excess dust should be removed by extraction.
Avoid static electricity: all handling equipment must be properly grounded. |
| - Storage: | Store in a clean, dry, well-ventilated area.
Prevent heat contact, smoking, welding or open flame in the storage area. |

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- | | |
|---------------------------|---|
| - Respiratory protection: | Dust mask is recommended. |
| - Eye protection: | Safety glasses are recommended |
| - Hand protection: | Gloves are recommended due to possible irritation. |
| - Skin protection: | Coveralls should be worn to minimize the possible skin contact surface. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|----------------------------|--|
| - Melting point: | +/- 86 °C |
| - Physical state at 25 °C: | Odourless to slightly acid, white to off-white powder. |
| - Thermal decomposition: | +/- 146 °C |
| - Solubility in water: | Soluble in hot water |
| - Bulk density: | See Product Specification for values. |
| - pH value: | See Product Specification for values. |

SECTION 10. STABILITY AND REACTIVITY

- | | |
|-------------------------------------|--|
| - Stability: | Product does not undergo spontaneous decomposition, is stable. |
| - Hazardous properties: | Potential dust explosion hazard |
| #> St-Class: | 1 |
| #> P-Max: | 5,0 bar.g |
| #> Kst value: | 50 bar.m/s |
| #> LEL: | 50 g/m ³ |
| #> MIE: | 100 mJ |
| #> MIT: | 300 °C |
| #> LIT: | melts |
| - Hazardous decomposition products: | Burning can produce CO and CO ₂ . |
| - Materials to avoid: | Avoid strong acids and alkali; oxidizing and reducing agents |
| - Conditions to avoid: | Avoid making dust |

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SECTION 11. TOXICOLOGICAL INFORMATION

- | | |
|---------------------------------|--------------------------------|
| - LD50 / LC50: | Not available |
| - Carcinogenicity: | Not classifiable as Carcinogen |
| - Epidemiology, Teratogenicity: | No information available |
| - Reproductive effects: | No information available |
| - Neurotoxicity: | No information available |
| - Other studies: | None |

SECTION 12. ECOLOGICAL INFORMATION

No environmental hazard nor adverse effect known of this product. Readily biodegradable.

- | | |
|----------------------------------|--|
| - COD (mg O ₂ /g ds): | +/- 1100 |
| - BOD (mg O ₂ /g ds): | +/- 700 |
| - WKG class (Germany): | Not dangerous when coming in contact with water. |

SECTION 13. DISPOSAL CONSIDERATIONS

- | | |
|-----------------------------|--|
| - Waste disposal procedure: | Send to landfill or incinerate. Federal state or local regulations should be observed. |
|-----------------------------|--|

SECTION 14. TRANSPORTATION INFORMATION

Not classified as dangerous.

SECTION 15. REGULATORY INFORMATION

- Labelling according to CLP Regulation (EC) 1272/2008: see point 2: Hazards identification
- Labelling according to CLP Regulation 67/548/EC: see point 2: Hazards identification

SECTION 16. OTHER INFORMATION

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

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