



Specification

Product Name: Zorbit
Product Code: SPEC0071

Description:

Zorbit is maltodextrin derived from Tapioca that has been specially designed to have a very low bulk density. It is a carbohydrate obtained from tapioca molecules, which have been broken down. It has low sweetening power and does not add calories. Employed as a bulking agent, it can also absorb oils. Used in the food industry in the preparation of beverages, dairy products, candies, soups and many other products. Its primary use is to increase the volume of dry mixes. In addition, as it has a bland taste it functions excellently as a dispersant for dry ingredients in low solids preparations. Zorbit is a very fine powder and is readily soluble when cold or hot. It becomes a manipulable powder when mixed with oil (2 parts Zorbit to 1 part oil) and dissolves completely on contact with an aqueous medium. Great for making "soil" both savoury and sweet. Can be used as a replacement for sugar in savoury ice cream or sorbet. Suitable for Vegans & Vegetarians, Non-GMO, Gluten Free.

Safety Data

While not regarded as "Hazardous", food starches are fine organic powders and, as such, they can give rise to a nuisance dust which has the potential to cause a dust explosion. See Safety Data Sheet. This product has been produced in accordance with all relevant EU legislation and in compliance with the required EU standards for food safety and hygiene.

Chemical and Physical Properties

	Min	Max	Unit
Moisture: as packed		9	%
pH: 5% aqueous suspension	6	9	-
Humidity:	0.1	0.2	g/cc

Physical Appearance	Typical
Colour:	White/creamy
Form:	Fine Powder

Microbiological Limits

	Max	Unit
TVC:	10000	cfu / g
Yeast:	200	cfu / g
Mould:	200	cfu / g
E. coli:	Negative	per g
Salmonella:	Negative	per 25g

**Heavy Metals**

	Typical	Unit
Arsenic:	1	ppm
Lead:	0.5	ppm
Cadmium:	0.05	ppm
Mercury:	0.05	ppm

Additional Information:

Contaminants Complies with Regulation (EC) 1881/2006, as amended

Pesticides Complies with Regulation (EC) 396/2005, as amended

Sulphur Dioxide (SO₂) typical < 10 ppm

Dietary Information:

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

Nutritional Information:

Based on typical content 100g: Energy: 1610kj/385kcal, Fat: 0.00g, of which saturates: 0.0g, Carbohydrate: 95.6g, Of which sugars: 2.5g, Protein: 0.5g, Salt: 0.09g.

Storage:

Store in dry, cool conditions and not in direct sunlight.

Packaging:

Size	EAN
250g	5060341111730
500g	5060341111747

Shelf Life:

36 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:

Product Name: ZORBIT, Supplier: 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: 07701 095864.

CAS number 9005-25-8

EC number 232-697-6

Identified uses: Food starch Industrial application Food

2: Hazard Identification:

2.1. Classification of the substance or mixture

Classification: (EC 1272/2008)

Physical hazards: Not Classified

Health hazards: Not Classified

Environmental hazards: Not Classified

2.2. Other Hazards

This substance is not classified as PBT or vPvB according to current EU criteria. Dust may form explosive mixture with air.

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH

Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

3: Composition/information on ingredients

3.1 Substances

Product name: STARCH. REACH registration notes: This product is not classified as hazardous, the information in this datasheet is given for guidance only. Exempt -Food / Pharma. application exempt by Article 2(5)

4: First Aid Measures:

4.1 Description of First Aid Measures

Inhalation: Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse nose and mouth with water. Get medical attention if any discomfort continues. Ingestion: Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if any discomfort continues. Skin contact: Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing. Eye contact: Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

4.2 Most important symptoms and effects, both acute and delayed

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Inhalation: Dust may irritate the respiratory system. Eye contact: May cause temporary eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor: No specific recommendations. If in doubt, get medical attention promptly.

5: Firefighting Measures:

5.1 Extinguishing media

Suitable extinguishing media: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Unsuitable extinguishing Media: Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture

Specific hazards: When heated and in case of fire, toxic vapours/gases may be formed. Dust may form explosive mixture with air. Hazardous combustion products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon.

5.3 Advice for Firefighters

Protective actions during firefighting: No action shall be taken without appropriate training or involving any personal risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Contain and collect extinguishing water. Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6: Accidental Release Measures:

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Wear protective clothing as described in Section 8 of this safety data sheet. Avoid generation and spreading of dust. Avoid inhalation of dust. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage.

6.2. Environmental precautions

Environmental precautions: Avoid discharge into water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Avoid generation and spreading of dust. Remove spillage with vacuum cleaner or collect with a shovel and broom, or similar. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. In case of spills, beware of slippery floors and surfaces. Flush contaminated area with plenty of water. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections: For personal protection, see Section 8. For waste disposal, see Section 13.

7: Handling And Storage:

7.1. Precautions for safe handling

Usage precautions: Avoid inhalation of dust and contact with skin and eyes. Provide adequate ventilation. Avoid handling which leads to dust formation. Eliminate all sources of ignition. Static electricity and formation of sparks must be prevented. Take precautionary measures against static discharges. Ground/bond container and receiving equipment.

Advice on general occupational hygiene: Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8: Exposure Controls/ Personal Protection:**8.1. Control parameters**

Occupational exposure limits: Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust. Long-term exposure limit: (8-hour TWA): WEL 4 mg/m³ respirable dust. WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment:



Appropriate engineering controls: Provide adequate ventilation. Use mechanical ventilation if there is a risk of handling causing the formation of airborne dust.

Eye/face protection: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166. Hand protection: The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber. (min 0.11 mm) To protect hands from chemicals, gloves should comply with European Standard EN374. Other skin and body protection: Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible. Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures: Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Eye wash facilities and emergency shower must be available when handling this product. Respiratory protection: Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m³. Wear a respirator fitted with the following cartridge: Particulate filter, type P1. Particulate filter, type P2. EN 136/140/141/145/143/149.

9: Physical and Chemical Properties:**9.1. Information on basic physical and chemical properties**

Appearance: Dusty powder. Granules. Crystalline powder. Solid Colour Cream. or White/off-white. to Light (or pale). Yellow. Odour: Characteristic. Odour threshold No information available. pH (diluted solution): ~7 @ 50%. Melting point: No information available. Initial boiling point and range: No information available. Flash point: No information available. Evaporation rate: No information available. Flammability (solid, gas): No information available. Upper/lower flammability or explosive limits: No information available. Other flammability: No information available. Vapour pressure: No information available. Vapour density: No information available. Relative density: No information available. Bulk density: 0.5 - 0.7 kg/l. Solubility(ies): Slightly soluble in water. Partition coefficient: log Pow: < 2. Auto-ignition temperature: 390°C. Decomposition Temperature: No information available.



Viscosity: No information available. Explosive properties: No information available. Explosive under the influence of a flame: Not considered to be explosive. Oxidising properties :No information available.

10: Stability and Reactivity:

10.1. Reactivity

Reactivity: There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability: Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions: Under normal conditions of storage and use, no hazardous reactions will occur.

10.4. Conditions to avoid

Conditions to avoid: Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Carbon monoxide (CO). Carbon dioxide (CO₂).

11: Toxicological Information:

11.1. Information on toxicological effects

Acute toxicity – oral. Notes (oral LD₅₀): Based on available data the classification criteria are not met.

Acute toxicity – dermal. Notes (dermal LD₅₀): Based on available data the classification criteria are not met. Acute toxicity – inhalation. Notes (inhalation LC₅₀): Based on available data the classification criteria are not met. Skin corrosion/irritation. Animal data: Based on available data the classification criteria are not met. Serious eye damage/irritation: Based on available data the classification criteria are not met. Respiratory sensitisation: Based on available data the classification criteria are not met.

Skin sensitisation: Based on available data the classification criteria are not met. Germ cell mutagenicity, Genotoxicity - in vitro: Based on available data the classification criteria are not met. Carcinogenicity: Based on available data the classification criteria are not met. Reproductive toxicity, fertility: Based on available data the classification criteria are not met. Specific target organ toxicity - single exposure: STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure: STOT - repeated exposure Based on available data the classification criteria are not met. Aspiration hazard: Based on available data the classification criteria are not met. Toxicokinetics: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation: Dust in high concentrations may irritate the respiratory system. Ingestion: No harmful effects expected from quantities likely to be ingested by accident. Skin contact: Skin irritation should not occur when used as recommended. Eye contact: Particles in the eyes may cause irritation and smarting.

12: Ecological information

Ecotoxicity: The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Not considered toxic to fish. Acute aquatic toxicity – aquatic invertebrates: EC₅₀, : > 100 mg/l, Daphnia magna

12.2. Persistence and degradability

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The product is readily biodegradable.

12.3. Bioaccumulative potential

The product is not bioaccumulating. Partition coefficient log Pow: < 2

12.4. Mobility in soil

The product has poor water-solubility.

12.5. Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Cod 1200 mg/g. Other adverse effects: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

13: Disposal Considerations**13.1. Waste treatment methods**

General information: Waste should be treated as controlled waste. Do not puncture or incinerate, even when empty. Disposal methods: Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14: Transport Information:

General The product is not covered by international regulations 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 legislation 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) (as amended). 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 (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.

15.2. Chemical safety assessment

Not applicable.

16: Other Information:

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use. Since the conditions 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.