



Specification

Product Name: Sucrose Ester

Product Code: SPEC0216

Description:

Our Sucrose Ester is in powder form. Sucrose Ester is obtained by esterifying sucrose with edible fatty acids from palm oil. It can be used as an emulsifier in virtually all food products including bakery, confectionery, cereals, dairy, ice cream and sauces. It is often used in low-fat alternatives to maximize the mouthfeel provided by fat. Sucrose Ester also provides a finer crumb structure and a softer texture in bakery products, stability in dairy or sauces, and improved texture and flavour in mousse and ice cream. In addition to emulsification, it has many other functions including aeration, texturization, protein protection and fat or sugar crystallization. Capable of foaming alcohols, it is unique in the way that it can boost other emulsifiers and improve the air bubble structure, prevent proteins from browning, keep starches from early stalling, prevent fat bloom in chocolate, and accelerate crystallization in fine-grained sugar confection.

Specifications:

Physicochemical Specifications		
Characteristics	Specifications	Method
Total Esters	≥ 80.0 %	CFT-01
Acid Value	≤ 6.0 mg KOH/g	CFT-02A
Free Fatty Acids (estimated as oleic acid)	≤ 3.0 %	CFT-02A
Free Sucrose	≤ 5.0 %	CFT-03A
Water Content	≤ 4.0 %	CFT-04
Sulfated Ash	≤ 2.0 %	CFT-05
Acetaldehyde	≤ 50 ppm	USP 467
Dimethylformamide (DMF)	≤ 1.0 ppm	USP 467
Dimethyl Sulfoxide (DMSO)	≤ 2.0 ppm	CFT-06
Isobutanol	≤ 10 ppm	CFT-07
Methanol	≤ 10ppm	USP 467
Methyl Ethyl Ketone (MEK)	≤ 10 ppm	USP 467
Ethyl Acetate, Isopropanol, and Propylene Glycol	≤ 350 ppm	USP 467
p-methoxy-phenol	≤ 0.1 ppm	USP 467
Lead	≤ 2.0 ppm	AOAC 2013.06
Arsenic	≤ 3.0 ppm	AOAC 2013.06
Cadmium	≤ 1.0 ppm	AOAC 2013.06
Mercury	≤ 1.0 ppm	AOAC 2013.06

**Ingredients:**

Sucrose Ester (E473)

Dietary Information:

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

Nutritional Information:

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

Storage:

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

Packaging:

Size	EAN
100g	5056191009266
250g	5056191009273
500g	5056191009280
5kg	5056191009655
10kg	5056191009662

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: Sucrose Ester

Chemical Name: Sucrose Esters of Fatty Acid

E-numbers: E-473

CAS #*: 25168-73-4/ 26446-38-8/ 25339-99-5 37318-31-3/ 39300-95-3/ 37266-93-6

EC # (EINECS)*: 246-705-9/ 247-706-7/ 246-873-3 253-459-6/ 254-410-1/ 253-432-9

Identified uses: Food-grade emulsifier/surfactant

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: 07387 330318

* CAS # & EC# might vary depending on the composition of the product type

2: Hazard Identification:

Classification:

Regulation (EC) 1272/2008 (CLP): Not classified

Directive 67/548/EEC or Directive 1999/45/EC (EC) 1272/2008: Not classified

GHS-US Classification: Not classified

Information concerning particular hazards for human and environment: Not classified

Other hazards that do not result in classification: None

Labelling and Precautionary Statement (Regulation (EC) 1272/2008 and GHS-US)

Hazard Pictogram: N/A

Environmental: N/A

Signal word: N/A

Hazard statement: N/A

Precautionary statement:

- (P261) Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- (P305+P351+P338) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Other hazards

PBT and vPvBB assessment: N/A

Unknown acute toxicity (GHS-US): No data available

3: Composition:

Chemical Name	Composition %	CAS #	EC # (EINECS)
Sucrose esters of fatty acid	≥ 80.0	25339-99-5/ 26446-38-8/ 37318-31-3	246-873-3/ 247-706-7/ 253-459-6
Water	≤ 4.0	7732-18-5	231-791-2
Sucrose	≤ 5.0	57-50-1	200-334-9

4: First Aid Measures

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Description of first-aid measures

Eye contact: Flush eyes with running water as a precaution. Consult doctor/physician if symptoms persist.

Skin contact: Flush skin with running water as a precaution. Consult doctor/physician if symptoms persist.

Inhalation: Move victim to fresh air. Give artificial respiration if required. Consult doctor/physician if symptoms persist.

Ingestion: Rinse mouth with water. Never give anything by mouth to an unconscious person.

Symptoms and effects: (acute and delayed): May cause minor irritation to the eye and upon inhalation.

Indication of immediate medical attention and special treatment: Not required

5: Firefighting Measures:

Suitable Extinguishing media: Dry chemical, Carbon dioxide (CO₂), water spray, or alcohol-resistant foam.

Unsuitable extinguishing media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Specific hazards arising from the substance: If involved in a fire, carbon monoxide and carbon dioxide are released from the substance.

Special precautions for fire fighters: Wear self-contained breathing apparatus and/or protective suit.

6: Accidental Release Measures:

Personal precautions and protective equipment: Avoid dust formation. Avoid breathing in vapour, mist or gas. For personal protection see section 8.

Emergency procedures: In case of a spill and/or a leak, ventilate the area and exercise caution.

Environmental precautions: Prevent entry into sewers, basements or confined areas.

Methods and materials for containment and cleaning up: No special measure required, sweep up spilled material for disposal.

7: Handling And Storage:

Precautions for safe handling: Provide appropriate exhaust ventilation at places where dust is formed.

Fire Prevention: None as product is non-flammable.

Conditions for safe storage: Recommended to store in cool (<26°C) and dry (R.H. <60%) environment, avoiding sunlight. Hygroscopic material, keep container tightly sealed after each use.

Storage incompatibilities: Store away from oxidizing agents.

Specific end use(s): Apart from the ones mentioned in section 1, other uses are applications in cosmetics, pharmaceuticals, flavour, fragrances, agrochemicals and textile (the list is non exhaustive).

8: Exposure Controls and Personal Protection:

OSHA Permissible Exposure Limit, American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs): No data available.

Control parameters: No content of relevant quantity of material with critical values to be monitored at the workplace.

Exposure control:

Appropriate engineering controls: Good general ventilation should be sufficient to control airborne levels. Eyewash fountains should be provided where there is possibility of direct exposure.

Personal protective measures (PPE)	
Eye/face protection:	Use eye protection equipment tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Respiratory protection:	Recommended to wear face mask and when handling in bulk amount, wear an MSHA/NIOSH-approved dust respirator or equivalent.
Skin/hand protection:	Wash and dry hands after handling. Recommended to handle with gloves that satisfy EU Directive 89/686/EEC and standard EN 374 derived.
Body protection:	Selected according to the concentration and amount of substance at specific activities or workplaces (e.g. laboratory coat, long sleeve).

9: Physical and Chemical Properties:

Appearance: White or off-white powder

Odour: Almost odourless

Odour threshold: No data available

pH: No data available

Flash point: No data available

Evaporation rate: No data available

Boiling point: No data available

Melting point: No data available

Vapour pressure: No data available

Relative density: No data available

Solubility: Soluble in ethanol, or acetone. Monoester soluble in hot water, but diester and triester insoluble in water.

Partition coefficient: (n-octanol/water): No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Flammability Limits

Upper: No data available

Lower: No data available Viscosity:

No data available

Flammability: No data available

Explosive properties: No data available

Oxidizing properties: No data available

10: Stability and Reactivity:

Reactivity: No data available.

Chemical stability: Stable under recommended storage conditions (See Section 7).

Possibility of hazardous reactions: No hazardous reactivity has been reported.

Conditions to avoid: Avoid excessive heat, direct sunlight and humid environment.

Incompatible materials: Oxidizing agents

Hazardous decomposition products: Carbon monoxide and carbon dioxide through burning.

11: Toxicological Information:

Acute toxicity: No data available

Chronic toxicity: No data available

Skin sensitisation/irritation: May cause irritation

Respiratory: May cause irritation

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Eye damage/ irritation: May cause irritation
Germ cell mutagenicity: No data available
Carcinogenicity: Not listed under EPA, NTP, IARC, OSHA and ACGIH.
Reproductive toxicity: No data available
Potential health effects: Skin and eye contact may result in irritation.
Specific target organ(s): No data available
Aspiration Hazard: No data available

12: Ecological Considerations:

Eco toxicity:
Fish: No data available
Crustacea: No data available
Algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential (BCF): No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available as chemical safety assessment is not required.
Other adverse effect: No data available

13: Disposal Considerations:

Disposal of product: Dispose of in accordance with all applicable local, regional and national environmental laws and regulations. Incineration of waste material in a permitted facility in accordance with local, regional and federal regulations is recommended.

14: Transport Information:

UN number: ADR/RID: N/A, IMDG: N/A, IATA-DGR: N/A

UN proper shipping name

ADR/RID: N/A

IMDG: N/A

IATA-DGR: N/A

Transport hazard class(es): ADR/RID: N/A, IMDG: N/A, IATA-DGR: N/A

Packaging group: ADR/RID: N/A, IMDG: N/A, IATA-DGR: N/A

Environmental hazards: ADR/RID: N/A, IMDG marine pollutant: N/A, IATA-DGR: N/A

Special precautions for user: N/A

Transport in bulk according to Annex II of Marpol and the IBC Code: N/A

15: Regulatory Information:

Safety, health and environmental regulations/legislation specific for the substance of mixture
USA

- Ingredient(s) registered in TSCA: Listed
- Ingredient(s) registered in California Proposition 65, California SB 484: Not listed

GRAS (Generally Recognized as Safe) under US FDA: Yes: various GRAS Notices e.g. GRN 129, 248, 514.
EUROPE

- Ingredient(s) listed on EINECS (number): Listed
- Ingredient(s) listed on ELINCS (number): Not listed

REACH – Contains chemicals(s) identified in Substance of Very High Concern (SVHC): No

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Australia – Ingredient(s) listed on AICS or notified under NICNAS: Listed

Japan – Ingredient(s) listed on ENCS and CSCL: Listed

China – Ingredients listed on IECSC: Listed

Republic of South Korea – Ingredient(s) listed on KECL (Korea Existing Chemical List) offered by National Chemicals Information System (NCIS): Listed

Taiwan – Ingredient(s) listed on Taiwan Chemical Inventory: Listed

International - Contains an ingredient which is, or is an extractive or derivative of Convention on International Trade in Endangered Species (CITES): No

Chemical safety assessment: Not required

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 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.