



Material Safety Data Sheet
According to EU Regulation 1907/2006 in the current version

Date 10-03-16
Version 1.0

STEARIC ACID

1. Identification of the substance/preparation and the company

Trade name: Stearic acid
sustainable palm oil derivative in compliant with requirements of the RSPO SCCS

Utilization: Cosmetic raw material

Supplier company identification: **Elemental SRL**, Piata Cazarmii no.15, 410188-Oradea, jud.Bihor, Romania
Tel/Fax: +40259-436.755, office@elemental.eu

Emergency: RO: numar national pentru cazuri de urgenta: 021 3183606 Institutul de Sanatate Publica Bucuresti. International emergency number: +49 180 2273-112

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 The substance is not classified according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC not applicable

Information concerning particular hazards for human and environment: According to current European laws and regulations the product is not dangerous or toxic material (based on the available data). No hazards to be particularly mentioned. Please note the information of this Material Safety Data Sheet.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008: Void. Hazard pictograms: Void

Signal word: Void. Hazard statements: Void

2.3 Other hazards

Results of PBT and vPvB assessment: PBT: Substance characteristics do not meet screening criteria. vPvB: Substance characteristics do not meet screening criteria.

3. Composition / Information on ingredients

Substances

INCI-name:	Stearic acid	Chemical description: Fatty acids, C16-18
CAS-number:	637701-0-5	
EINECS-number:	266-928-5	

4. First Aid

Generally: If symptom persists or in case of doubt, seek medical advise.

First aid after Inhalation: Move to fresh air. Consult a doctor in case of pain.

First aid after Skin contact: In general product is not skin-irritating. Wash skin with soap and water.

First aid after Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

First aid after Ingestion: In the event of unintentional swallowing, rinse out mouth with water and drink plenty of water. do not force vomiting. Seek medical attention if symptoms occur.

Most important symptoms and effects, acute/delayed: No further relevant information available.

5. Fire-fighting Measures

5.1 Extinguishing media

Suitable extinguishing agents: Foam, Fire-extinguishing powder, Carbon dioxide (CO₂).

Use fire fighting measures that suit the environment. For safety reasons unsuitable extinguishing agents: High volume



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water jet.

5.2 Special hazards arising from the substance or mixture:

In case of fire, the following can be released: Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters:

Protective equipment: Wear self-contained respiratory protective device.

Additional information: Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter the sewage system.

6. Accidental release measures:

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing. Ensure adequate ventilation. Avoid formation of dust. Use respiratory protective device against the effects of fumes/dust/aerosol.

6.2 Environmental precautions: No special measures required.

6.3 Methods and material for containment and cleaning up: Pick up mechanically. Avoid any dust formation. Pick up with a tested and approved industrial vacuum cleaner if necessary. Allow molten product to solidify. Pick up mechanically. Clean the affected area carefully; suitable cleaners are: Warm water and cleansing agent

6.4 Reference to other sections: See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7. Handling and Storage

7.1 Precautions for safe handling

Prevent formation of dust. Any deposit of dust which cannot be avoided must be regularly removed. Ensure good ventilation/exhaustion at the workplace. Avoid inhalation of dust. Avoid contact with eyes and skin. Avoid inhalation of vapours formed by heated product.

Information about protection against explosions and fires:

Observe the general rules of industrial fire protection. Dust can combine with air to form an explosive mixture. Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities

Storage. Requirements to be met by storerooms and receptacles: Closed container of aluminium or stainless steel (V4A) respectively fatty acid resistant coatings. Protect flaked product in multi-layer paper bags with inner coating against humidity.

Information about storage in one common storage facility: Store away from foodstuffs. Store away from feed. Further information about storage conditions: Store under cool, dry conditions in well sealed receptacles.

Storage class: 11 Combustible solids

7.3 Specific end use(s): No further relevant information available

8. Exposure Controls and Personal Protection

8.1 Control parameters

Components with limit values that require monitoring at the workplace: Not required

DNELs

Abbreviations: In = Industrial Prof = Professional Cons = Consumer LLE = Long term, local effects. LSE = Long term, systemic effects. SLE = Short term, local effects. SSE = Short term, systemic effects.

Oral DNEL/Cons/LSE 2.5 mg/kg bw/day (human). Dermal DNEL/Cons/LSE 5 mg/kg bw/day (human). DNEL/In/LSE 10 mg/kg bw/day (human). Inhalative DNEL/Cons/LSE 4.348 mg/m³ (human). DNEL/In/LSE 17.632 mg/m³ (human). PNECs

No long term toxicity to aquatic organisms expected. Therefore no derivation of PNEC.

CAS No. Designation of material % Type Value Unit

67701-03-5 Fatty acids, C16-18



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Additional Occupational Exposure Limit Values for possible hazards during processing: Observe general threshold limit for dust. Additional information: The lists that were valid during the creation were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures: The usual precautionary measures should be adhered to when handling chemicals. Do not inhale dust/smoke/mist. Vacuum contaminated clothing. Do not blow or brush off contamination. Avoid close or long term contact with skin. Use skin protection cream for skin protection. Do not eat or drink while working. Wash hands before breaks and at the end of work. Breathing equipment: Not necessary if room is well-ventilated. Protection of hands: Protective gloves. To avoid skin problems reduce the wearing of gloves to the required minimum. Preventive skin protection by use of skin-protecting agents is recommended. After use of gloves apply skin-cleaning agents and skin cosmetics. Material of gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. For undissolved solid substances following materials may be suitable: Nitrile rubber, NBR. Butyl rubber, BR. Polychloroprene rubber (CR). Fluorocarbon rubber (FKM).

Penetration time of glove material: The exact penetration time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: At formation of dust or insufficient ventilation.



Body protection: Protective work clothing

9. Physical and Chemical Properties

Appearance:	waxy solid flakes
Colour:	white
Odour:	fat-like
Melting point:	53-56°C
Boiling point & range:	200-240°C
Flash point:	180-220 °C (ASTM D92)
Dissociation constant pKa:	4,75 at 20°C
Relative density at 20°C:	0,85-0,90 g/cm3
Solubility:	miscible with oils; in water < 0.05 mg/l (Read Across from 57-10-3)
Viscosity dynamic at 70°C:	12 mm2
Auto-ignition temperature:	430 °C
Segregation coefficient:	7.05-8.23 log POW
Explosive properties:	product not explosive
Decomposition temperature:	> 200°C

10. Stability and Reactivity

10.1 Reactivity

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications. To avoid thermal decomposition do not overheat.

10.3 Possibility of hazardous reactions

As the product is supplied it is not capable of dust explosion. However, enrichment with fine dust causes risk of dust explosion.

10.4 Conditions to avoid: No further relevant information available

10.5 Incompatible materials: Alkalis, Oxidants, Reducing agents.

10.6 Hazardous decomposition products: No hazardous decomposition products if instructions for storage and handling are followed.



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11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity: LD/LC50 values that are relevant for classification:

Oral LD50 > 5000 mg/kg (rat) (OECD 401). Dermal LD50 > 2000 mg/kg (rabbit) (equivalent to OECD 434)

Inhalative LC50/4 h > 0.1521 mg/l (rat)

Primary irritant effect:

on the skin: No irritating effect (based on the single components)

on the eye: No irritating effect (based on the single components)

On respiratory tract: No data available

Sensitization: Not sensitizing (guinea pig) (weight of evidence)

Other information (about experimental toxicology): Ames-test: negative

Mouse lymphoma assay (OECD 476): negative

Mutagenicity (mammalian cell test): chromosomes aberration negative

Carcinogenic, mutagenic effects and adverse effects on reproduction:

Carcinogenicity: no information available

Toxicity to reproduction:

Oral NOAEL (maternal) 1000 mg/kg bw/day (rat). NOAEL(developmental) 1000 mg/kg bw/day (rat)

Subacute to chronic toxicity:

STOT-single exposure No classification. STOT-repeated exposure: No classification

Aspiration hazard: No classification

Additional toxicological information: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Repeated dose toxicity: Oral NOAEL 1000 mg/kg/day (rat)

12. Ecological Information

12.1 Toxicity

Aquatic toxicity: EC10/18h (static) 883 mg/l (Pseudomonas putida). EC50/48h (static) > 4.8 mg/l (Daphnia magna)

(OECD 202). EbC50/72h (static) > 0.9 mg/l (Pseudokirchneriella subcapitata) (OECD 201). ErC50 (static)

(Pseudokirchneriella subcapitata) (OECD 201). LC50/48h (static) > 1000 mg/l (Leuciscus idus) (DIN 38412/15)

NOEC/72 h (static) > 0.9 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

12.2 Persistence and degradability: No further relevant information available

Other information: The product is biodegradable. Derived from single components.

12.3 Bioaccumulative potential

Due to the distribution coefficient n-octanol/water an accumulation in organisms is possible.

The partition coefficient refers to the physicochemical properties of the substance only and does not take into account its behaviour in the environment (e.g. biodegradation) and in living organisms (e.g. metabolism). Therefore, further information like BCF and degradation have to be taken into account for the assessment.

12.4 Mobility in soil No further relevant information available

Ecotoxicological effects:

Bioaccumulation of this product is not expected and therefore no PNEC is required. No long-term adverse effect on aquatic organisms. Therefore no PNEC has been derived.

Additional ecological information: Generally not hazardous for water. Classification based on ident - no. 661: fatty acids, saturated, linear, with even-numbered C-chain, number of C-atoms ≥ 14 , with terminating carboxyl group.

12.5 Results of PBT and vPvB assessment

PBT: Substance characteristics do not meet screening criteria. vPvB: Substance characteristics do not meet screening criteria.

12.6 Other adverse effects: No further relevant information available



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13. Disposal Considerations

13.1 Waste treatment methods

Recommendation: Disposal according to instructions of local authorities

European waste catalogue:

07 00 00 Wastes from organic chemical processes. 07 01 00 waste from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals. 07 01 99 wastes not otherwise specified.

Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.

14. Transport Information

General recommendations: Not classified as dangerous in the meaning of transport regulations

UN no: not classified

Road (ADR/RID): not classified

Air (IATA/ICAO): not classified

Sea (IMDG): not classified

Special precautions for user: See section 6-8

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC: n/a

15. Additional Regulatory Information

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

National regulations

Water hazard class: Not hazardous for water

Code No. according to catalog of water endangering substances: 661

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other Information

Disclaimer:

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)



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PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Sources: Chemical Safety Report