



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	: Calcium Stearate
Chemical name	: Fatty acid, hydrogenated, calcium salt
Chemical family	: Fatty acid salts
Manufacturer's code	: SAK-CS (all grades)
Use	: lubricant

2. HAZARD IDENTIFICATION

GHS classification of the substance
Classification (REGULATION (EC) No. 1272/2008)

Physical hazard	: Not classified
Health hazard	: Not classified
Environmental hazard	: Not classified

When used in an appropriate manner no negative effects are known. Concentrated dust may present an explosive hazard

3. COMPOSITION / INFORMATION ON INGREDIENT

<u>Chemical name</u>	<u>Common name</u>	<u>CAS No.</u>	<u>Content (%)</u>
Fatty acids, hydrogenated, calcium salts	Calcium Stearate	1592-23-0 / 85251-71-4	> 96
Free Fatty Acid	Palmitic & Stearic Acid	67701-03-5	< 1.0
Water	Moisture	-	< 3.0

4. FIRST AID MEASURES

Eye contact	: Wash thoroughly with running clean water. Get medical advice if irritation develops.
Skin contact	: Wash with clean water
Inhalation	: Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion	: Seek medical advice
Acute and delayed symptoms	: The available information indicates that calcium stearate is generally nontoxic. High concentration of dust may cause coughing and mild temporary irritation. May be slightly irritation to eye.
First aid and notes for physicians	: Calcium stearate practically is of very low toxicity

5. FIRE FIGHTING MEASURES

Suitable extinguishing media	: Carbon dioxide, dry chemical powder, alcohol foam, water spray. Water or foam may cause frothing.
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Unsuitable extinguishing media	: Water jet
Specific hazards arising from the chemical	: Carbon monoxide and carbon dioxide
Specific protective equipment and precautions for fire-fighters	: In the event of a fire, wear full protective clothing and approved self-contained breathing apparatus. Fight fire from a safe distance or protected location. Under certain conditions, a dust cloud of calcium stearate can explode when ignited by a spark, flame or other ignition source. Must avoid generating dust to minimize risk of explosion.

6. ACCIDENTAL RELEASE MEASURES

Personal protective equipment	: Eye - Wear appropriate protective safety glasses Skin – Wear appropriate protective gloves and clothing Put on an appropriate respirator
Containment procedure	: Keep unnecessary personnel away. Eliminates all sources of ignition. Do not allow the spilled product to enter sewers or open waterways.
Clean-up procedure	: Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid the generation of dust during the clean-up. Vacuum spills or cover with damp sand or saw-dust if sweep. Non sparking tools should be used.

7. HANDLING AND STORAGE

Safe handling procedure	: Open packaging bag carefully, avoid spillage and dust formation and control ignition sources. Use this product with adequate ventilation. Wash hand after handling.
Storage	: Store in cool, dry place to avoid the effects of heat and moisture. Keep container tightly closed and properly labeled. Avoid exposure to sunlight, heat and spark. Ground all equipment containing material. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dust does not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure limit	: NIOSH REL : TWA 10 mg/m ³ (Total), TWA 5 mg/m ³ (Resp.) OSHA PEL : TWA 15 mg/m ³ (Total), TWA 5 mg/m ³ (Resp.)
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Engineering controls	: General room ventilation plus local exhaust at points of emission to maintain levels of airborne contaminants below exposure limits. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.
Personal protective equipment	
Respiratory	: An appropriate dust respirator. Should be used as a precautionary measure where airborne contaminants may occur.
Eye	: Safety glasses or chemical safety goggles
Hand	: Protective gloves
Body	: Overall or dust cloth, change daily.
Ventilation	: Use adequate ventilation to prevent dust

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Fine, white powder, granule, noodle
Odour	: Slight fatty acid odour
Odour threshold	: Data not available
pH (water slurry at 25°C)	: 9 typical
Melting point (°C)	: 148 - 160
Initial boiling point and boiling range	: Decompose
Flash point	: 277°C (open cup)
Evaporation rate	: Not applicable
Flammability	: Non-flammable but combustible
Lower flammable (Explosive) limit	: 20 g/m ³
Vapour Pressure	: Not applicable
Solubility	: Insoluble in water, alcohol and ether. Soluble in benzene and in heated common solvents; decomposed by diluted acids.
Vapour density	: Data not available
Specific gravity	: 1.03 at 20°C
Octanol / water partition coefficient	: Data not available
Auto Ignition temperature	: 421°C
Decomposition temperature	: Data not available
Viscosity	: Not applicable
Molecular weight	: 578 typical

10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal condition of storage & transport
Possibility of hazardous reactions	: Decomposed by acids, oxidizing agents and alkalies
Conditions to avoid	: Incompatible materials, static charge, sparks, heat and other ignition sources, generation of dust
Incompatible materials	: Can react with acids, oxidizing agents and alkalies.
Hazardous decomposition products	: Carbon monoxide, carbon dioxide and calcium oxide fume

11. TOXICOLOGICAL INFORMATION

Routes of exposure	: Can occur through inhalation, ingestion and eye or skin contact.
<u>Acute health effects</u>	
Eye contact	: Dust or mist may be slightly irritating. Minimal to no irritation seen in an animal study.
Skin contact	: Probably not irritating and not absorbed.
Inhalation	: High concentration of dust may cause coughing and mild temporary irritation.
Ingestion	: Oral toxicity is low.
<u>Chronic health effects</u>	: Long term exposures to high concentration of dust may cause increased mucous flow in the nose and respiratory system airways. This condition usually disappears after exposure ceases.
Carcinogenicity	: No information available.
Reproductive toxicity	: No information available.
Mutagenicity	: No information available.
<u>Toxicity data</u>	
Oral : Mouse and rat LD50	: No information available
Intraperitoneal : Mouse LD50	: No information available

12. ECOLOGICAL INFORMATION

Aquatic and terrestrial ecotoxicity	: No information available
Persistence and degradability	: Not expected to bioaccumulate, knowing that fatty acids will degrade by the Beta oxidation pathway
Bioaccumulation	: Not expected to bioaccumulate.
Mobility in soil	: No information available
The product should be prevented from entering drains, sewers, streams etc.	

13. DISPOSAL CONSIDERATION

Disposal method	: Dispose of waste in accordance with local regulations and acts. Contaminated packaging must be treated in the same manner as the product itself.
Precautions for disposal	: Prevent material from entering drains, sewers, streams etc.



14. TRANSPORT INFORMATION

UN No.	: Not regulated
UN proper shipping name	: Not regulated
Transport hazard class	: Not regulated
Packing group	: Not Classified
Special shipping instructions	: Not Classified
IATA, IMDG, ADR	: Not Dangerous Goods

15. REGULATORY INFORMATION

TSCA Chemical Inventory

This material is on the EPA Toxic Substance Control Act (TSCA) inventory list

California Proposition 65

To the best of our knowledge, this product contains no levels of listed substances, which the state of California has found to cause cancer, birth defects or other reproductive effects

SARA Title III

Section 202 Extremely Hazardous substances	: No
Section 311/312 Hazardous Categories	: No
Section 313 Toxic Chemicals	: No

16. OTHER INFORMATION

HMIS Rating	Health	0	Reactivity	0	Flammability	1
NFPA	Health	0	Fire	1	Reactivity	0

MSDS creation date	: 1 Feb 1994
Revision date	: 14 August 2023
Revision number	: 16

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