



**CALCIUM STEARATE POS
MATERIAL SAFETY DATA SHEET**

According to Regulation 453/2010/EC

Revision:
10/04/2012

Emission
10/04/2012

Revision nr:
n° 01

SO.G.I.S. INDUSTRIA CHIMICA S.p.A.
Via Giuseppina, 132
26048 Sospiro (CR) - Italia
☎ (+39)0372622211 – 📠 (+39)0372622290
VAT nr I.V.A. 00110160199

SECTION 1: Identification of the substance and identification of the Company

1.1. Identification of the product

Chemical type: UVCB substance
Chemical name: Calcium Stearate/Fatty acids, C16-18, Calcium salts
Commercial name: Calcium Stearate POS
EC Name: Calcium distearate / Fatty acids, C16-18, calcium salts
N° EINECS: 216-472-8 / 286-484-6
N° CAS: 1592-23-0 / 85251-71-4
Molecular Formula : $C_{18}H_{36}O_2 \cdot \frac{1}{2}Ca$
Molecular weight: 607.04

1.2. Allowed uses for the substance and heedless uses

This substance is used mainly as stabilizer and lubricant. Main applications are in food, cosmetics pharmaceuticals, building industry, plastics, metal working, paints and varnishes.

1.3. Information about the supplier

SO.G.I.S. Industria Chimica SpA
Via Giuseppina, 132
26048 Sospiro (CR)
Tel.: +39 0372 622 200 ; Fax.: +39 0372 622 292
E-mail: info@sogis.com

1.4. Emergency phone number

Tel.: +39 0372 622 208 ; + 39 348 8604 991

SECTION 2: Hazard identification

2.1. Classification of the substance

Substance is not classified dangerous according to Regulation 1272/2008/EC (CLP) and Directive 1967/548/EC.

2.2. Label

This substance does not require labelling.

2.3. Other hazards

This information is not available.

SECTION 3: Composition/information about the ingredients

3.1. Substances

Chemical name	N° CAS	N° EINECS	%
Calcium Stearate / Fatty Acids, C16-18, Calcium salts	1592-23-0 / 85251-71-4	216-472-8 / 286-484-6	about 100

SECTION 4: First aid measures

4.1. Description of the first aid measures

Contact with eyes: Rinse cautiously with water for several minutes. In case irritation persists, seek medical advice.
Contact with skin: Wash with plenty of soap and water. In case skin irritation persists, seek medical advice.
Inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. In case breathing symptoms persist, seek medical advice. In case ventilation is not enough, use a breathing device.
Swallowing: Rinse mouth with water. Do not induce vomiting. In case of unwellness, get medical advice.

4.2. Main symptoms and effects, both acute and chronic

Information about symptoms and effects caused by the substance: see SECTION 11.

4.3. Need to immediately get medical advice and special care

Get medical advice – showing this MSDS – in case of persistent irritation of eyes or skin, breath symptoms or unwell feeling.

SECTION 5: Fire fighting measures

5.1. Exinction means

Water mist, Carbon dioxide, dry powder or alcohol resistant foam.

5.2. Specific hazards

Substance is not flammable in normal handling and storage conditions. In case of fire, Carbon Oxides and Calcium Oxides can develop. Dust could give rise to explosive mixtures with air.

5.3. Recommendations for fire fighting



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Cool container with water jets to avoid developing of substances potentially dangerous for health. Remove the container from the fire area, in case this is free from risks. Wear always the full fire protective equipment during fire: protective cap with visor, fireproof clothes, gloves and respirator.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate and isolate the area till a complete dispersion of the substance. Alert internal emergency team. Insure an adequate ventilation. Avoid developing of dust. Avoid inhaling dust and contact with eyes and skin. Use suitable personal protection equipment.

6.2. Environmental precautions

Avoid dispersion of the substance in the environment and in sewers, drain and surface waters. Alert authorities in case of big spillage in sewers, drain or surface waters

6.3. Methods and materials for containment and decontamination

Reduce pouring out as far as possible. Cover sewage. Collect the substance mechanically or with vacuum cleaners and transfer in a properly labelled container. Dispose the substance according to the local and national legislation. Clean carefully the interested area in order to get rid of residual contamination.

6.4. Reference to other sections

Info about personal protection equipment: SECTION 8. Info about disposal: SECTION 13.

SECTION 7: Handling and storage

7.1. Safe handling precautions

Environment and working methodologies have to be such that the direct contact with the substance is prevented or reduced. Be sure that ventilation is adequate. Avoid dust formation. Avoid dust inhalation and contact with eyes and skin. Use adequate personal protection equipment.

7.2. Safe storage conditions, including incompatibilities

Store in a dry, fresh and ventilated environment. Avoid moisture and direct sun rays exposure. Keep far from heat sources, sparks, fire. Keep far from strong oxidant.

7.3. Specific final uses

Not shown.

SECTION 8: Individual exposure control/personal protection

8.1. Control parameters

Professional exposure limit: ACGIH - TWA (8 hours) "stearates" = 10 mg/m³

8.2. Individual exposure monitoring



Skin protection:

Working clothes with long sleeves and professional working shoes.

Hands protection:

Working gloves, Standard EN 374.

Eyes protection:

Safety goggles with side protection EN166.

Breath Protection:

In standard conditions, no breath protection is required. In case of insufficient ventilation or dust inhalation risk, wear an antidust mask, according to EN 149 and EN143 standards.

Technical and hygiene precautions

Install a local ventilation by exhaustion or other means to be able to maintain particles at a level lower than the recommended limits in the air. Install safety shower to wash body and eyes. Do not eat, drink or smoke while working. Wash hands and skin after use. Use clean working clothes. Handle the substance according to good industrial hygiene practice.

SECTION 9: Chemical and physical properties

9.1. Information about the main physical and chemical characteristics

- | | |
|--|-----------------------------|
| a) Appearance: | white powder |
| b) Odor: | greasy weak |
| c) Olfactory threshold: | not available |
| d) pH: | alkaline (water solution) |
| e) Melting point/freezing point: | 179.5 °C |
| f) Initial boiling point and boiling interval: | 661°C – estimate EPI Suite™ |
| g) Flammability point: | about 200 °C (open cup) |



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h) Evaporation rate:	not available
i) Flammability (solid,gases):	not available
j) Higher/lower flammability or explosion limit:	30 g/m ³
k) Vapour tension:	6 x 10 ⁻¹⁴ hPa (25 °C) – estimate EPI Suite™
l) Vapour density:	not available
m) Relative density:	1.12
n) Solubility:	insoluble in water: 40 mg/L (15 °C) ; 2 mg/L (35 °C)
o) Partition coefficient n-octanol/water:	log Kow = 14.34 - stima EPI Suite™
p) Flash point:	about. 350 °C
q) Decomposition temperature:	> 350 °C
r) Viscosity:	not applicable
s) Explosion properties:	not explosive
t) Oxidation properties:	not oxidant

9.2. Further information

Information not available

SECTION 10: Stability and reactivity

10.1. Reactivity

No particular dangerous reaction with other substances in standard use conditions is known.

10.2. Chemical stability

Substance is stable in standard conditions of use and storage.

10.3. Possibility of dangerous reactions

Dust can develop explosive mixture with air.

10.4. Conditions to avoid

Avoid exposure to moisture and direct sun rays. Keep far from heat sources, sparks and fire.

10.5. Incompatible materials

Strong oxidants.

10.6. Dangerous decomposition products

In case of fire, Carbon Oxides and Calcium Oxides can develop.

SECTION 11: Toxicological information

11.1. Toxicological effects information

a) Acute toxicity

LD50 oral > 10000 mg/kg bw

(RA-S, CAS No. 557-04-0, acute oral toxicity, rat)

LD50 oral > 10000 mg/kg bw

(RA-S, CAS No. 557-04-0, acute oral toxicity, mouse)

LC50 inhalation (4 hours) > 1241mg/m³

(RA-S, CAS No. 1592-23-0, inhalation, mammal - species unspecified)

air

On the base of the available data, the substance does not show acute toxicological effects.

b) Corrosion/skin irritation

Not irritant

(RA-S, CAS No. 557-04-0, Draize test, rabbit)

On the base of the available data, the substance does not show corrosion/skin irritation.

c) Severe eyes damage/severe eyes irritation

Not irritant

(RA-S, CAS No. 557-04-0, Draize test, rabbit)

On the base of the available data, the substance does not cause severe eyes damages/irritations.

d) Breath and skin sensitization

This information is not available.

e) Mutagenicity

Not mutagen (in vitro)

(RA-S, CAS No. 557-04-0, Ames test, salmonella typhimurium)

On the base of the available data, the substance does not have any mutagen effect.

f) Carcinogenicity

Information not available.

g) Toxicity for reproduction

Not teratogen

(RA-S, CAS No. 557-04-0, developmental toxicity, rabbit)

On the base of the available data, this substance has no reprotoxic effect.



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h) Target organ specific toxicity (STOT) – single exposure

Information not available.

i) Target organ specific toxicity (STOT) – repeated exposure

NOEL = 2500 mg/kg bw/day (90 days)

(RA-S, CAS No. 557-04-0, repeated dose toxicity, rat)

On the base of the available data, this substance does not have toxic specific effects for target organs for repeated exposure.

j) Danger in case of breathing

Information not available.

SECTION 12: Environmental information

12.1. Toxicity

LC50 fish (96 hours) > 12500 mg/L

(RA-S, CAS No. 3159-62-4, acute toxicity, rainbow trout)

EC50 invertebrates (48 hours) > 1000 mg/L

(RA-S, CAS No. 3159-62-4, acute immobilisation test, acartia tonsa)

EC10 algae (72 hours) > 1000 mg/L

(RA-S, CAS No. 3159-62-4, growth inhibition test, skeletonema costatum)

EC50 microorganism (3 h) > 22120 mg/L

(RA-S, CAS No. 1592-23-0, growth inhibition test, bacteria)

On the base of the available data, this substance does not have any adverse effect for aquatic organisms.

12.2. Persistency and degradability

On the base of the available data, the substance is readily biodegradable and does not undergo significant hydrolysis and photodegradation (direct or indirect) processes.

12.3. Bioaccumulative potential

On the base of the available data, this substance has a limited bioaccumulative potential.

12.4. Soil mobility

On the base of the available data, sediments and soil are the main targets for the distribution of the substance in the environment. Nevertheless, release of the substance would be limited.

12.5. Results about evaluation PBT and vPvB

No PBT and vPvB evaluation has been carried out on this substance.

12.6. Other adverse effects

Information not available.

SECTION 13: Disposal considerations

13.1. Waste disposal

In case it is possible, recover the substance. Disposal or recovering have to be managed according to the local or national legislation. Such provisions apply also to contaminated containers. It is therefore recommended to get in contact with the competent authorities or with authorized Companies that could give indications about how to deal with disposal or recovery.

SECTION 14: Transport information

Substance is not classified dangerous based on the current legislation dealing with dangerous goods transport on road (ADR), by railway (RID), maritim (IMDG Code) and by airplane (IATA).

14.1. UN Number

Not applicable.

14.2. UN delivery norms

Not applicable.

14.3. Transport danger classification

Not applicable.

14.4. Packaging group

Not applicable.

14.5. Dangers for the environment

Not applicable.

14.6. Special precautions for users

Not applicable.

14.7. Bulk transport according to Appendix II of MARPOL 73/78 and code IBC

Not applicable.



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SECTION 14: Regulatory information

15.1. Norms and laws about health, safety, environment

This substance is not classified dangerous according to Regulation 1272/2008/EC (CLP) e Directive 1967/548/EC. It is exempted from Registration according to Regulation 1907/2006 in Regulation 987/2008, Annex V (Annex II), § 9.

15.2. Evaluation of chemical safety

No evaluation of the chemical safety of the substance has been carried out.

SECTION 16: Other information

Main references:

- APAG Metallic Soaps recommended information to be used in the context of CLP notification, October 2010
- Directive 1967/548/EC (and following updates)
- Hazardous Substances Data Bank "Calcium Stearate" (HSDB Number: 905)
- High Production Volume (HPV) chemical challenge program "Fatty Acids, Lithium & Calcium Salts used as Lubricating Grease Thickeners, February 2009"
- Registry of Toxic Effects of Chemical Substances "Stearic acid, calcium salt" (RTECS Number: WI3000000)
- EC Regulation n° 1272/2008 (CLP) (and following updates)
- EC Regulation 1907/2006 (REACH) (and following updates)

ACGIH:	American Conference of Governmental Industrial Hygienists
ADR:	European agreement concerning the International carriage of dangerous goods by road
BCF:	Bioconcentration factor
CAS:	chemical abstracts service
CLP:	classification, labelling and packaging
DT50:	time required for 50 % dissipation of the initial concentration
EC10:	concentration that will have an effect on 10% of the population of test organisms
EC50:	concentration of test substance which results in a 50% reduction in either growth (EbC50) or growth rate (ErC50) relative to the control."
EINECS:	European Inventory of Existing Commercial Chemical Substances
IATA:	International air transport association
IMDG Code:	International maritime dangerous goods Code
LC50:	LC stands for "Lethal Concentration". LC values usually refer to the concentration of a chemical in air but in environmental studies it can also mean the concentration of a chemical in water. For inhalation experiments, the concentration of the chemical in air that kills 50% of the test animals in a given time (usually four hours) is the LC ₅₀ value.
LD50:	LD stands for "Lethal Dose". LD ₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. The LD ₅₀ is one way to measure the short-term poisoning potential (acute toxicity) of a material.
NOAEL:	no observed effect level
NOEC:	No observed effect concentration
PBT:	Persistent, bioaccumulative, toxic
PNEC:	Predictive no effect concentration
REACH:	Registration, Evaluation, Authorisation and Restriction of Chemical Substances
RID:	Regulation for International carriage of dangerous goods by rail
TWA:	time weighted average for a n 8 hours shift
UVCB:	Unknown or Variable compositions, Complex reaction products and Biological materials
vPvB:	Very persistent, very bioaccumulative

Note:

Information reported in this MSDS are based on our best knowledge at the date. Information are supplied with the only aim to help in usage, storage, transport, disposal and are not to be considered a specific guarantee of quality. User has to make sure about the suitability and completeness of the information, in relation to their own use of the substance.