

MATERIAL SAFETY DATA SHEET

Product Name	HI-TECA -Calcium Stearate
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1. Manufacturer/supplier/distributor information

1-1 Product Name	HI-TECA-Calcium Stearate
1-2 Recommended use of the chemical and restrictions on use	
Recommended use	Plastic additives
Restrictions on use	No data available
1-3 Manufacturer/supplier/distributor information	
Name	SINWON CHEMICAL CO.,LTD.
Address	1Ra-106, Shihwa Industrial Complex, #1236-5, Jungwang-Dong, Shihung-City, Kyonggi-Do, Korea
Emergency phone number	82-31-432-6688

2. HAZARDS IDENTIFICATION

2.1 Hazard/risk classification	Not applicable
2.2 Label elements including precautionary statements	
1) Symbol : Not applicable	
2) Signal word : Not applicable	
3) Hazard/risk statement : Not applicable	
4) Precautionary statement : Not applicable	
2.3 Other hazard/risk which are not included in the classification criteria	
NFPA ratings : Health=1 Fire=1 Reactivity=0	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Common name(s) and synonym(s)	CAS No.	Content(%)
Calcium Stearate	OCTADECANOIC ACID, Calcium SALT	1592-23-0	Min 99%

4. FIRST AID MEASURES

4.1 Eye contact	Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains (at least 15-20 minutes). Get medical attention immediately.
4.2 Skin contact	Remove contaminated clothing and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention immediately.
4.3 Inhalation	Remove from exposure immediately. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention.
4.4 Ingestion	If vomiting occurs, keep head lower than hips to help prevent aspiration. Treat symptomatically and supportively. Get medical attention if needed.

5. FIRE FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media

- 1) Suitable extinguishing media : Regular dry chemical, carbon dioxide, water, regular foam.
- 2) Unsuitable extinguishing media : No data available.
- 3) Larger fires : Use regular foam or flood with fine water spray.

5.2 Specific hazards arising from the chemical

- 1) Thermal decomposition products : Oxides of calcium and carbon.
- 2) Fire and explosion hazard
Slight fire hazard when exposed to heat or flame. Dust-air mixtures may ignite or explode

5.3 Special protective equipment and precautions for fire-fighters

Move container from fire area if you can do it without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry.

6.2 Environmental precautions and protective procedures

- 1) Air spill : No data available
- 2) Land spill : No data available
- 3) Water spill : No data available

6.3 Methods and materials for containment and cleaning up

- 1) Small spills : No data available
- 2) Large spills : No data available

7. HANDLING AND STORAGE

7.1 Precautions for safe handling : Handle in accordance with all current regulations and standards.

7.2 Conditions for safe storage (including any incompatibilities)

Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances. Store in a cool, dry place. Store in a tightly closed container. Avoid to contact with halogen.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

- 1) Occupational exposure limit values : No occupational exposure limits established.
- 2) Biological limit values : No data available

8.2 Appropriate engineering controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

8.3 Personal protective equipment

- 1) Respiratory protection

Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use. Any dust, mist, and fume respirator. Any air-purifying respirator with a high-efficiency particulate filter. Any powered, air-purifying respirator with a dust, mist,

and fume filter. Any powered, air-purifying respirator with a high-efficiency particulate filter.

2) Eye Protection

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

3) Hands protection : Wear appropriate chemical resistant gloves.

4) Body protection : Wear appropriate chemical resistant clothing.]

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance (physical state, color etc) : White powder

9.2 Odor : Distinct odor

9.3 Odor threshold : No data available

9.4 pH : Not applicable

9.5 Melting point/freezing point : 146~160°C

9.6 Initial boiling point and boiling range : No data available

9.7 Flash point : 177°C (OC)

9.8 Evaporation rate : Not applicable

9.9 Flammability (solid, gas) : No data available

9.10 Upper/lower flammability or explosive limits : Lower limit 0.025 g/L

9.11 Vapor pressure : 2.21E -15 mmHg at 25°C (estimated)

9.12 Solubility : 4 0.004% @ 15°C (water)

9.13 Vapor density : Not applicable

9.14 Relative density : 1.03

9.15 Partition coefficient: n-octanol/water : 14.34 (estimated)

9.16 Auto-ignition temperature : 400°C

9.17 Decomposition temperature : No data available

9.18 Viscosity : No data available

9.19 Formula mass : 607.4

10. STABILITY AND REACTIVITY

10.1 Chemical stability and possibility of hazardous reactions

Stable under normal temperatures and pressures. Will not polymerize..

10.2 Conditions to avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

10.3 Incompatible materials : Oxidizing materials.

10.4 Hazardous decomposition products : Thermal decomposition products: oxides of carbon.

11. TOXICOLOGICAL INFORMATION

11.1 Information on the likely routes of exposure

Stimulation, gastroenteric trouble.

11.2 Health hazards information

1) Acute toxicity

Oral : LD50 >10,000mg/kg (Rat)

Dermal : No data available

Inhalation : No data available

2) Skin corrosion/irritation : No data available

3) Serious eye damage/irritation : No data available.

4) Respiratory sensitization : No data available

5) Skin sensitization : No data available

6) Carcinogenicity : Not listed as a carcinogen or suspected carcinogen by NTP, IARC or OSHA.

7) Germ cell mutagenicity : No data available

8) Reproductive toxicity : No data available

9) Specific target organ toxicity (single exposure) : No data available

10) Specific target organ toxicity (repeated exposure) : No data available

11) Aspiration hazard : No data available

12. ECOLOGICAL INFORMATION

12.1 Aquatic and terrestrial ecotoxicity

1) Fish : LC50 0.0000000113 mg/l 96hr

2) Crustacea : LC50 0.0000000284 mg/l 48hr (Daphnia)

3) Algae : EC50 0.0000000362 mg/l 96hr (Green algae)

12.2 Persistence and degradability

1) Persistence : log Kow 14.34

2) Degradability : No data available

12.3 Bioaccumulative potential

1) Bioaccumulation : BCF 3.162

2) Biodegradability : No data available

12.4 Mobility in soil : No data available

12.5 Other adverse effects : No data available

13. DISPOSAL CONSIDERATIONS

13.1 Disposal method : Observe all federal, state and local regulations when disposing of this substance.

13.2 Disposal precaution : Observe all federal, state and local regulations when disposing of this substance.

14. TRANSPORT INFORMATION

14.1 UN number : No classification currently assigned.

14.2 UN proper shipping name : Not applicable

14.3 Transport hazard class : Not applicable

14.4 Packing group : Not applicable

14.5 Marine pollutant : No

14.6 Special precaution which a user to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises : No data available

15. REGULATORY INFORMATION

15.1 Chemical inventories

- 1) USA (TSCA) : Listed
- 2) Canada (DSL/NDSL) : Listed on the DSL
- 3) European Union (EINECS/ELINCS) : Listed (EC number : 216-472-8)
- 4) Japan (ENCS) : Listed
- 5) Korea (ECL) : Listed
- 6) Australia (AICS) : Listed
- 7) New Zealand (NZIOC) : Listed
- 8) Phillipines (PICCS) : Listed
- 9) China (IECSC) : Listed

15.2 US regulations

- 1) EPCRA Section 302 : None
- 2) EPCRA 311/312 Hazard Categories : None
- 3) EPCRA 313 chemical : None

15.3 EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

- 1) Risk phrases : This product is not classified according to EU legislation.
- 2) Europe inventory : All components are listed or exempted.

15.4 Other regulations

- 1) Rotterdam Convention substance : None
- 2) Stockholm Convention substance : None
- 3) Montreal Protocol substance : None

16. OTHER INFORMATION

16.1 Information source and reference

Korea Occupational Safety and Health Agency (KOSHA) (www.kosha.or.kr)

16.2 Issuing date : 2010.03.26.

16.3 Revision date and number : 2010.08.25.

16.3 Others

- 1) Product information : See technical literature for details of suitable applications of this product.
- 2) Note : The purpose of the above information is to describe the products only in terms of health and safety requirements. The information given should not, therefore, be construed as guaranteeing specific properties or as a specification. Customers should satisfy themselves as to the suitability and completeness of such information for their

own particular use.