# CALCIUM STEARATE

## Grade Name: PLF-G

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product identifier

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|---|---|
| **Product Name** | **: Calcium Stearate** |
| Product Code(s) | : Calcium Stearate |
| Synonym(s) | : Octadecanoic acid, calcium salt; Calcium distearate; Calcium octadecanoate; Stearic acid, calcium salt |
| REACH Registration Number | : No data available |

Relevant identified uses of the substance or mixture and uses advised against

| | |
|---|---|
| General use | : For use in industrial and laboratory applications |
| Uses advised against | : None known |

Details of the supplier and of the safety data sheet Manufacturer/Distributor

Nimbasia Stabilizers
F - 172 (A & B) & F-173,
Indraprastha Industrial Area,
Kota, Rajasthan, India 324005.

Emergency telephone number

Chem Tel
+91 744 2980970

## SECTION 2 - HAZARDS IDENTIFICATION

Classification of substance or mixture

Product definition : Substance

Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation EC No. 1272/2008

Not a dangerous substance according to OSHA or to European Union Legislation

Label Elements

Not classified as dangerous according to GHS

Hazards not otherwise classified (HNOC) or not covered by GHS

May form combustible dust concentrations in air

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Substances

| % by Weight | Ingredient | CAS Number | EC Number | Index Number | GHS Classification |
|---|---|---|---|---|---|
| <99 | Calcium Stearate | 1592-23-0 | 216-472-8 | ---------- | ---------- |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence, require reporting in this section.

Mixtures

Not applicable

## SECTION 4 - FIRST AID MEASURES

Description of first aid measures

Inhalation : If exposure to product mist causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight fitting clothing such as a collar, tie, belt or waistband. If symptoms persist, seek medical attention.

Eyes : Immediately flush eyes with large amounts of water for 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after the first 2 minutes and continue rinsing. If irritation persists seek medical attention, preferably from an ophthalmologist.

Skin : Flush skin with water while removing contaminated clothing. Wash affected area with soap and water followed by thorough rinsing. Wash contaminated clothing and shoes thoroughly before reuse. If irritation persists, seek medical attention.

Ingestion : Rinse mouth thoroughly with water if the victim is conscious. Remove dentures, if present. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Obtain medical attention, especially if a large amount is swallowed.

Most important symptoms and effects, both acute and delayed Potential health symptoms and effects

Eyes : May cause eye irritation with redness, swelling, pain and tearing. May cause chemical conjunctivitis. Particulates may cause mechanical irritation of the eye.

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| Skin | : Causes skin irritation with localized redness and itching. |
| Inhalation | : May cause irritation of the respiratory tract. Inhalation of a nuisance dust may cause coughing, sneezing and nasal irritation. |
| Ingestion | : May cause digestive upset with nausea, vomiting and diarrhea. |
| Chronic | : No data available |

Indication of any immediate medical attention and special treatment needed

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| Advice to Doctor and Hospital Personnel | : Treat symptomatically and supportively. |

## SECTION 5 - FIRE FIGHTING MEASURES

Extinguishable media

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| Suitable methods of extinction | : Use extinguishing media such as water fog, water spray, carbon dioxide, dry chemical and foam. |
| Unsuitable methods of extinction | : High pressure streams of water may create dust clouds. |

Special hazards arising from the substance or mixture

| | |
|---|---|
| Combustible dust | : Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention. |
| Explosion hazards | : Not considered to be explosion hazard. |

Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. If possible, water contaminated by this material should be contained from being discharged to any waterway, sewer or drain to prevent environmental contamination.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid dust generation and accumulation. Remove all sources of ignition. NO SMOKING. Do not inhale dust. Keep upwind of spill. Ventilate the area. Evacuate non-essential personnel. Wear appropriate protective clothing designated in Section 8.

Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.

Methods and materials for containment and cleaning up

Cover drains and contain spill. Avoid dust generation during cleanup. Collect material and place into an approved container for proper disposal. Observe possible material

restrictions (Sections 7.2 and 10.5). Dispose of in accordance with federal, state and local regulations.
Reference to other sections
See Section 13 for additional waste treatment information.

## SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling
Wear all appropriate personal protective equipment specified in Section 8. Do not get in eyes or on skin or clothing. Do not breathe dust. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing and shoes before reuse. DO NOT SMOKE when handling this material.

Advice on protection against fire and explosion
Forms combustible dust clouds in air. Avoid dust generation and accumulation.

Conditions for safe storage, including any incompatibilities
Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10.5), food and drink. Transfer only to approved containers having correct labeling. Keep container tightly closed. Protect containers against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent spillage. Containers may be hazardous when when empty as they contain product residues Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Do not take internally. Keep out of reach of children.

Specific end uses
Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters
Occupational exposure limits

| CAS Number | Ingredient | OSHA PEL | ACGIH TLV | NIOSH |
|---|---|---|---|---|
| 1592-23-0 | Calcium Stearate | ---------- | 10 mg/m3 TWA (except stearates of toxic metals) (listed under stearates) | ---------- |

Exposure controls

Engineering Measures : Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable.

Individual protection measures : Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace,

depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures : Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Eye/face protection : Wear protective goggles or safety glasses with non-perforated side shields and a face shield. Refer to 29 CFR 1910.133, ANSI Z87.4 or Standard EN 166.

Hand Protection : Wear gloves recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of gloves must be greater than the intended use period.

Other protective equipment : Wear protective clothing. Wear protective boots, if the situation requires.

Respiratory Protection : None required with normal use. Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls : Do not empty into drains.
PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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|---|---|
| Appearance | : White to yellowish powder |
| Odor | : Slight, characteristic |
| Odor Threshold | : No data available |
| Molecular Weight | : 607 g/mol |
| Chemical Formula | : C36H70CaO4 |
| pH | : No data available |
| Freezing/Melting Point, Range | : 145 - 160 °C (293 - 320 °F) |
| Initial Boiling Point | : No data available |
| Evaporation Rate | : Not applicable |
| Flammability (solid, gas) | : Non-flammable |
| Flash Point | : No data available |
| Autoignition Temperature | : 398.89 °C (750 °F) |
| Decomposition Temperature | : No data available |
| Lower Explosive Limit (LEL) | : No data available |
| Upper Explosive Limit (UEL) | : No data available |
| Vapor Pressure | : No data available |
| Vapor Density | : No data available |
| Specific Gravity | : 1.03 |
| Viscosity | : No data available |
| Solubility in Water | : Negligible (0.29% @ 25 °C) |
| Partition Coefficient: n-octanol/water | : No data available |
| Oxidizing Properties | : Not applicable |
| Explosive Properties | : Not applicable |
| Volatiles by Volume @ 21 ºC | : 0% |

Other data

No data available

## SECTION 10 - STABILITY AND REACTIVITY

Reactivity

May form combustible dust clouds in air.

Chemical stability

This product is stable under recommended storage conditions, handling and use.

Possibility of hazardous reactions

Hazardous polymerization does not occur.

Conditions to avoid

Avoid dust accumulation, high temperatures and contact with incompatible materials.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products
Thermal decomposition products include oxides of carbon.

## SECTION 11 - TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute Oral Toxicity
LD50, rat: 10 g/kg

Acute inhalation toxicity
No data available

Acute dermal toxicity
LD50, rat: 2,630 mg/kg literature

Skin irritation/corrosion
May cause skin irritation

Eye irritation/corrosion
May cause eye irritation. May cause mechanical irritation.

Sensitization
No data available

Genotoxicity in vitro
No data available

Mutagenicity
No data available

Specific organ toxicity - single exposure
No data available

Specific organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Further information
No component of this product present at levels greater than or equal to the 0.1% threshold (de minimis) is identified as a probable, possible, potential or confirmed carcinogen by ACGIH, IARC, NTP or OSHA. No data is available regarding the mutagenicity or teratogenicity of this product, nor is there any available data that indicates that it causes adverse developmental or fertility effects.

Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12 - ECOLOGICAL INFORMATION

Toxicity
Prolonged and acute toxicity to fish : LC50 - Lepomis macrochirus (Bluegill sunfish), 96 h: 10,650 mg/l IUCLID

Toxicity to aquatic invertebrates : EC50 - Daphnia magna (Water flea), 48 h: 144 mg/l IUCLID
Toxicity to aquatic plants : IC50 - Algae, 120 h: 130 mg/l IUCLID

Persistence and degradability
Expected to be biodegradable.

Bioaccumulation potential
Not expected to bioaccumulate

Mobility in soil
No data available

Results of PBT and vPvB assessment
No data available
Other adverse effects

Additional ecological information
Do not allow material to run into surface waters, wastewater or soil.
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods
Methods of disposal : The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Disposal of surplus and non-recyclable product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements. Avoid dispersal of spilt material or runoff and contact with soil, waterways, drains and sewers.
RCRA P-Series : No listing
RCRA U-Series : No listing

## SECTION 14 - TRANSPORT INFORMATION

**Note:** Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

**NOT REGULATED FOR TRANSPORT**

## SECTION 15 - REGULATORY INFORMATION

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

**U. S. Federal Regulations**

| | |
|---|---|
| OSHA Hazard Communication Standard | : This material is not classified as highly hazardous in accordance with OSHA 29 CRF 1910.1200. |
| OSHA Process Safety Management Standard | : Chemicals in this product are not regulated under OSHA PSM Standard 29 CFR 1910.119. |
| EPA Risk Management Planning Standard | : Chemicals in this product are not regulated under EPA RMP Standard (RMP) 40 CFR Part 68. |
| EPA Federal Insecticide, Fungicide and Rodenticide Act | : Calcium Stearate (CAS #1592-23-0) is a registered Pesticide under the FIFRA, 40 CFR Part 150. |
| Toxic Substance Control Act (TSCA) Inventory | : This substance is listed on the TSCA Inventory. It is not subject to TSCA 12(b) Export Notification. |

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.4(f)(2) and Chemical Code Number

Not listed

Drug Enforcement Administration (DEA) Lists 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number

Not listed

Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals

Not listed

Superfund Amendments and Reauthorization Act (SARA)

| | |
|---|---|
| SARA 313 Information | : None of the chemicals in this product are subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986. |
| SARA Section 311/312 Hazard Categories | : None |
| SARA 302/304 Extremely Hazardous Substance | : None of the chemicals in this product are subject to reporting requirements of these sections of Title III SARA |
| SARA 302/304 Emergency Planning & Notification | : None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA. |
| Comprehensive Response Compensation and Liability Act (CERCLA) | : This product contains no CERCLA reportable substances. |

Clean Air Act (CAA)

This product does not contain any substances that listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain any Class 1 Ozone depletors.

This product does not contain any Class 2 Ozone depletors.

Clean Water Act (CWA)
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**U.S. State Regulations**

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986
This product contains no chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm.

Other U.S. State Inventories
This material is not listed on any State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists.

**Canada**

| | |
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| WHMIS Hazard Symbol and Classification | : None allocated |
| Canadian National Pollutant Release Inventory (NPRI) | : None of the substances in this product are listed on the NPRI. |

**European Economic Community**

WGK, Germany (Water danger/protection): nwg (non-hazardous to waters)
Global Chemical Inventory Lists

| Country | Inventory Name | Inventory Listing |
|---|---|---|
| Canada | Domestic Substance List (DSL) | Yes |
| Canada | Non-Domestic Substance List (NDSL) | No |
| Europe | Inventory of New and Existing Chemicals (EINECS) | Yes |
| United States | Toxic Substance Control Act (TSCA) | Yes |
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| New Zealand | New Zealand Inventory of Chemicals (NZIoC) | Yes |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |

Yes - All components of this product are in compliance with the inventory requirements administered by the governing country.
No - One or more components of this product are not on the inventory or are exempt from listing.

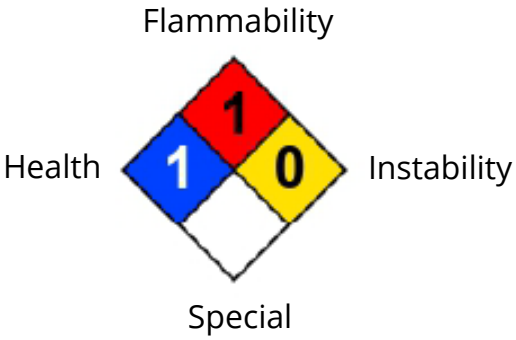
**Chemical safety assessment**

For this product a chemical safety assessment was not carried out.

## SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)


National Fire Protection Association (NFPA)




C = safety glasses, gloves and an apron

HMIS Hazard Rating Legend
0 = Minimal 1 = Slight 2 = Moderate 3 = Serious
4 = Severe * = Chronic Health Hazard

NFPA Hazard Rating Legend
0 = Insignificant 1 = Slight 2 = Moderate
3 = High 4 = Extreme

Abbreviation Key

| | |
|---|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ADR | Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road) |
| CAS | Chemical Abstract Services |
| CFR | Code of Federal Regulations |
| DOT | Department of Transportation |
| EC50 | Half maximal effective concentration |
| EMS Guide | Emergency Response Procedures for Ships Carrying Dangerous Goods |
| EPA | Environmental Protection Agency |
| ErC50 | Reduction of Growth Rate |
| ERG | Emergency Response Guide Book |
| FDA | Food and Drug Administration |
| GHS | Globally Harmonized System of Classification and Labelling of Chemicals (GHS) |
| HCS | Hazard Communication Standard |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IC50 | Half Maximal Inhibitory Concentration |
| ICAO | International Civil Aviation Organization |
| IDLH | Immediately Dangerous to Life and Health |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| LC50 | 50% Lethal Concentration |
| LD50 | 50% Lethal Dose |

| | |
|---|---|
| LDLo | Lowest Lethal Dose |
| mppcf | Millions of Particles Per Cubic Foot |
| NA | North America |
| NAERG | North American Emergency Response Guide Book |
| NIOSH | National Institute for Occupational Safety |
| NTP | National Toxicology Program |
| OSHA | Occupational Safety and Health Administration |
| PBT | Persistent, Bioaccumulating and Toxic |
| PEL | Permissible exposure limit |
| PMCC | Pensky-Martens Closed Cup |
| ppm | Parts Per Million |
| RCRA | Resource Conservation and Recovery Act |
| ppm | Parts Per Million |
| RCRA | Resource Conservation and Recovery Act |
| RID | Dangerous Goods by Rail |
| RQ | Reportable Quantity |
| TCC/Tag | Tagliabue Closed Cup |
| TLV | Threshold Limit Value |
| TSCA | Toxic Substance Control Act |
| TWA | Time-weighted Average |
| UN | United Nations |
| VOC | Volatile Organic Compounds |
| vPvB | Very Persistent and Very Bioaccumulating |
| WHMIS | Workplace Hazardous Materials Information System |

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