

# Godrej Industries Limited

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## Material safety data sheet (MSDS)

### 1. Chemical product and company identification

Trade name	:	Hystric	
Manufacturer's name and address	:	Godrej Industries Limited, Eastern Express Highway, Vikhroli (east), Mumbai. India. Pin - 400 079.	
Telephone	:	91-22-518 80-10 / 20 / 30	
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### 2. Composition / ingredients

Chemical composition	:	Palmitic acid 53 to 55% Stearic acid 45 to 47%	
Average molecular weight	:	270.5	
Chemical identity CH <sub>3</sub> (CH <sub>2</sub> ) <sub>14</sub> COOH CH <sub>3</sub> (CH <sub>2</sub> ) <sub>16</sub> COOH	:	Synonym: Hexadecanoic acid Octadecanoic acid	CAS number 57-10-3 57-11-4

### 3. Hazard identification (reference: 4)

Health rating	:	Slight
Flammability rating	:	Slight
Reactivity rating	:	Slight

Contact rating	:	Slight
Storage	:	General
<b>4. First-aid measures (reference: 4, 5)</b>		
Ingestion	:	Drink plenty of water.
Skin	:	Remove contaminated clothing and wash exposed area with plenty of water. Then wash again with soap and water.
Eye	:	Wash eyes with plenty of water.
Inhalation	:	Take affected person into the open air.
<i>*In all of the above cases, get a doctor to check the affected person.</i>		
<b>5. Fire hazard and fire-fighting measures (reference: 1, 5)</b>		
Flammability	:	Flammable and combustible in contact with heat or fire.
Means of extinguishing	:	Use water spray, carbon dioxide, dry chemical or alcohol foam. Use water to keep fire-exposed container cool.
Flash point	:	196° C
Auto ignition	:	395° C
Hazardous combustion product	:	None
<b>6. Accidental release (reference: 4, 5)</b>		
Personal protection	:	Use complete protective gear as prescribed in section 8.
Leak-and-spill procedures	:	Remove sources of ignition, ventilate area, sweep up and store in closed container.
<b>7. Handling and storage measures (reference: 4, 5)</b>		
Handling containers	:	Use full protective gear. Protect containers from physical damage / direct sunlight / water.
Storage conditions of containers	:	Use leak-proof and sealed bags. Store on pallets in well-ventilated, dry locations, at ambient temperature and away from direct sunlight.

<b>8. Exposure controls and personal protection measures (reference: 4, 5)</b>	
Engineering controls	
Use adequate ventilation to keep airborne concentrations low. Avoid inhaling heated vapours. ACGIH TLV: 10 mg / M <sup>3</sup> total dust OSHA PEL: 15 mg / M <sup>3</sup> total dust	
Personal protection	
Skin	: Rubber gloves
Respiration	: Air respirator
Eyes	: Goggles
Feet	: Safety shoes
Body	: Lab coat
Hygiene precautions	: Remove contaminated clothing and wash hands between breaks and at the end of duty hours.
<b>9. Physical and chemical properties (reference: 1, 4)</b>	
Physical state	: Solid flakes
Odour and appearance	: White flakes with slight odour
Specific gravity	: 0.847 at 69.3° C
Boiling point	: 299° C at 128mm
Melting point	: 54° C - 55° C
Vapour pressure	: 1mm at 173.7° C (8mm at 232° C)
Vapour density (air = 1)	: 9.8
Solubility in water (20° C)	: Insoluble
<b>10. Reactivity data (reference: 4, 5)</b>	
Chemical stability	: Product is very stable under the prescribed storage conditions.

Incompatibility with other substances	:	Strong oxidising agents.
Reactivity, and under what conditions	:	None
Hazardous decomposition	:	Carbon oxides may form when heated to decomposition temperatures (above its boiling point)
Hazardous polymerisation products	:	None
<b>11. Toxicological properties (reference: 2, 3, 4, 5)</b>		
Toxicity	:	Non-toxic
Skin contact	:	Slight
Inhalation (acute)	:	None
Skin absorption	:	None
Inhalation (chronic)	:	None
Eye contact	:	Slight
Ingestion	:	rat LD <sub>50</sub> > 10 gm/kg
Dermal	:	rabbit LD <sub>50</sub> > 5 gm/kg
Effect of acute and chronic exposure to material	:	The extensive use of stearic acid in industry has not been accompanied by any reports of injury.
Irritancy of material	:	Slight
Carcinogenicity, reproductive effects, terratogenicity, mutagenicity	:	None reported
<b>12. Ecological information (reference: 4, 5)</b>		
The product should not get into any kind of water without treatment. Dissolved in water, the material is easily biodegradable (90 per cent) and will not cause any disturbance in waste water treatment plants. Due to its insolubility in water, larger amounts need to be eliminated by separators, such as those typically used for fats and oils. Ecotoxicity: none reported.		
<b>13. Waste disposal (reference: 4, 5)</b>		
Leak-and-spill procedures	:	Sweep up and store in closed containers.

Disposal	:	Stored waste / recovered material used for recycling along with crude oils.
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**14. Transport recommendations (reference: 4, 5)**

No special conditions since it is not a regulated product. However, one should observe the usual precautionary measures for transporting chemicals.

**15. Regulatory requirements (reference: 4, 5)**

According to the data available, the product is not regulated. However, one should observe prescribed federal, state and local measures for dealing with chemicals. Listed on EINECS (EU), TSCA (USA), DSL (Canada ), AICS (Australia ), MITI (Japan), Korea and the Phillipines.  
EINECS No: Stearic acid 200-313-4  
Not listed as a carcinogen by NTP, IARC or OSHA.

**16. Other information**

Sources of information

1. Fatty acids - Klare Markley (1960)
2. Palm oil developments No 28 — pages 22 to 49 (March 1998)
3. JAOCS 56 — Page 760A - 767A (1979)
4. J. T. Baker Chemicals — MSDS of stearic acid (1-1-1999)
5. Acme Hardesty Chemicals — MSDS of stearic acid

**Disclaimer**  
The information presented here is believed to be accurate and pertains only to the product when stored in a sealed condition, as prescribed here. The information is given in good faith, but no warranty, express or implied, is made. Users should make their own investigations, for their specific applications and processes, to determine the suitability of the safety information mentioned here. Godrej Industries Limited will in no way be liable for any claims, losses and / or damages of any third party, or for lost profits, or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, from the use of this product.

