

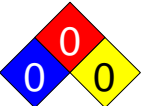

Godrej Industries Limited

Registered office: Pirojshanagar, Eastern Express Highway, Vikhroli, Mumbai 400 079, India.
Phone: (91-22) 2518 8010 / 2518 8020 / 2518 8030 extn: 4768 Fax: (91-22) 2518 8096 / 2518 8068
e-mail: rv.dubhashi@godrejinds.com

1 Identification

- **Trade name:** Palmitic Acid
- **CAS Number:**
57-10-3
- **EC number:**
200-312-9
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Manufacture of substances, laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Godrej Industries Limited,
Eastern Express Highway,
Vikhroli (east),
Mumbai - 400079
- **Information department:**
Telephone: (91-22) 25188010 / 25188020 / 25188030 extn: 4662
Office hours only (08.30 – 17.00 hours GMT +4.5 hours)
Fax: (91-22) 25188096 / 25188068
Email: ar.singh@godrejinds.com, ss.patil@godrejinds.com
- **Emergency telephone number:**
Contact details of importer:
Emergency telephone number: 9909028240, 9820607143, 9820305315
Telephone number of importer:
Opening hours:
Other Comments (e.g. language(s) of the phone service): English

2 Hazard(s) identification

- **Classification of the substance or mixture**
The substance is not classified according to the Globally Harmonized System (GHS).
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
- **Information concerning particular hazards for human and environment:** Not applicable.
- **Label elements**
- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with directives on hazardous materials.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**
 Health = 0
Fire = 0
Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**
 HEALTH 0 Health = 0
FIRE 0 Fire = 0
REACTIVITY 0 Reactivity = 0
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 2)

USA

Godrej Industries Limited

Registered office: Pirojshanagar, Eastern Express Highway, Vikhroli, Mumbai 400 079, India.
Phone: (91-22) 2518 8010 / 2518 8020 / 2518 8030 extn: 4768 Fax: (91-22) 2518 8096 / 2518 8068
e-mail: rv.dubhashi@godrejinds.com

Trade name: Palmitic Acid

(Contd. of page 1)

· **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
57-10-3 palmitic acid, pure
- **Identification number(s)**
- **EC number:** 200-312-9
- **Additional information:**
Molecular formula: C₁₆H₃₂O₂
Molecular weight: 256.42
Purity: > 90%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Do not induce vomiting.
Rinse out mouth and then drink plenty of water.
If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Information for doctor:** Treat symptomatically and supportively.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Foam, dry chemical powder, carbon dioxide.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Combustible, keep away from open flame, no smoking.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus for firefighting if necessary.
- **Additional information** Use water to keep the fire-exposed container cool

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Avoid contact with skin and eyes.
Wear suitable protective clothing and gloves.
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.

(Contd. on page 3)

Godrej Industries Limited

Registered office: Pirojshanagar, Eastern Express Highway, Vikhroli, Mumbai 400 079, India.
Phone: (91-22) 2518 8010 / 2518 8020 / 2518 8030 extn: 4768 Fax: (91-22) 2518 8096 / 2518 8068
e-mail: rv.dubhashi@godrejinds.com

Trade name: Palmitic Acid

(Contd. of page 2)

- **Methods and material for containment and cleaning up:**
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling**
Prevent formation of dust.
Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool, dry, well-ventilated area away from incompatible substances.
- **Information about storage in one common storage facility:** Protect from sunlight.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** Manufacture of substances, laboratory chemicals

8 Exposure controls/personal protection

- **Additional information about design of technical systems:**
Local exhaust ventilation required plus good work practice.
Safety shower. Eye fountain.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

57-10-3 palmitic acid, pure (>90%)

ACGIH TLV 10 mg / M3 Total Dust

OSHA PEL 15 mg / M3 Total Dust

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Contd. on page 4)

USA

Godrej Industries Limited

Registered office: Pirojshanagar, Eastern Express Highway, Vikhroli, Mumbai 400 079, India.
Phone: (91-22) 2518 8010 / 2518 8020 / 2518 8030 extn: 4768 Fax: (91-22) 2518 8096 / 2518 8068
e-mail: rv.dubhashi@godrejinds.com

Trade name: Palmitic Acid

(Contd. of page 3)

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Butyl rubber, BR

Nitrile rubber, NBR

PVC gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

Appearance: White Solid Flakes

· **Form:** Solid

· **Color:** White

· **Odor:** Characteristic

· **Change in condition**

Melting point/Melting range: 58 - 65 °C (136 - 149 °F)

Boiling point/Boiling range: 215 °C (419 °F) (15 mmHg)

· **Flash point:** 196 °C (385 °F)

· **Flammability (solid, gaseous):** Product is not flammable.

· **Ignition temperature:** 395 °C (743 °F)

· **Danger of explosion:** Product does not present an explosion hazard.

· **Vapor pressure at 173 °C (343 °F):** 1 mmHg

· **Density at 60 °C (140 °F):** 9.8 g/cm³ (81.781 lbs/gal)

· **Solubility in / Miscibility with**

Water: Insoluble.

· **Partition coefficient (n-octanol/water):** 7.17 log POW

· **Viscosity:**

Dynamic at 70 °C: 7.80 mPas.

· **Other information** No further relevant information available.

USA

(Contd. on page 5)

Godrej Industries Limited

Registered office: Pirojshanagar, Eastern Express Highway, Vikhroli, Mumbai 400 079, India.
Phone: (91-22) 2518 8010 / 2518 8020 / 2518 8030 extn: 4768 Fax: (91-22) 2518 8096 / 2518 8068
e-mail: rv.dubhashi@godrejinds.com

Trade name: Palmitic Acid

(Contd. of page 4)

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Protect against: heating. UV-solarization/sunlight.
- **Incompatible materials:** Avoid contact with strong oxidising agents and alkalis.
- **Hazardous decomposition products:** May produce carbon mono-oxide and/or carbon dioxide.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

Oral LD50	> 5000 mg/kg bw (rat)
-----------	-----------------------

· Primary irritant effect:

· On the skin:

No irritant effect.

The substance is found to be not irritating to rabbit skin.

· On the eye:

No irritating effect.

The substance is found to be not irritating to rabbit eyes.

· Sensitization: No sensitizing effects known.

· Subacute to chronic toxicity:

Palmitic acid caused the most severe hyperlipidemia (excess of fats or lipids in the blood) of the fatty acids tested (palmitic acid, lauric acid, myristic acid and stearic acid). Palmitic acid was second to stearic acid in thrombogenic effect.

· Additional toxicological information:

· Carcinogenic categories

· **IARC (International Agency for Research on Cancer)** Substance is not listed.

· **NTP (National Toxicology Program)** Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

· Toxicity

· Aquatic toxicity:

EC50 (48hr)	> 4.8 mg/L (Daphnia magna)
-------------	----------------------------

EC50 (72hr)	> 0.9 mg/L (Selenastrum capricornutum (Algae))
-------------	--

LC50 (96hr)	> 1000 mg/L (Danio rerio)
-------------	---------------------------

· **Persistence and degradability** The product is Readily biodegradable.

· Bioaccumulative potential

The bioaccumulation factor of palmitic acid in golden ide fish (*Leuciscus idus melanotus*), calculated as the concentration of chemical in fish (ug/g) divided by the medium concentration of chemical in water (ug/g), was determined to be 60 after 3 days. According to a classification scheme, this BCF suggests the substance is non bioaccumulative.

(Contd. on page 6)

USA

Godrej Industries Limited

Registered office: Pirojshanagar, Eastern Express Highway, Vikhroli, Mumbai 400 079, India.
Phone: (91-22) 2518 8010 / 2518 8020 / 2518 8030 extn: 4768 Fax: (91-22) 2518 8096 / 2518 8068
e-mail: rv.dubhashi@godrejinds.com

Trade name: Palmitic Acid

(Contd. of page 5)

· **Mobility in soil**

The Koc of undissociated palmitic acid is estimated as 189000 using a log Kow of 7.17 and a regression-derived equation. According to a classification scheme, this estimated Koc value suggests that undissociated palmitic acid is expected to be immobile in soil.

· **Additional ecological information:**

· **General notes:** Generally not hazardous for water

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:** Dispose off in accordance with appropriate Federal, state & local regulations.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**

· **DOT, ADR, ADN, IMDG, IATA** Not applicable

· **UN proper shipping name**

· **DOT, ADR, ADN, IMDG, IATA** Not applicable

· **Transport hazard class(es)**

· **DOT, ADR, ADN, IMDG, IATA**

· **Class** Not applicable

· **Packing group**

· **DOT, ADR, IMDG, IATA** Not applicable

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user** Not applicable.

· **Transport in bulk according to Annex II of**

MARPOL73/78 and the IBC Code Not applicable.

· **UN "Model Regulation":** Not applicable

15 Regulatory information

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

· **Sara**

· **Section 355 (extremely hazardous substances):** Substance is not listed.

· **Section 313 (Specific toxic chemical listings):** Substance is not listed.

· **TSCA (Toxic Substances Control Act):** Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:** Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.

(Contd. on page 7)

Godrej Industries Limited

Registered office: Pirojshanagar, Eastern Express Highway, Vikhroli, Mumbai 400 079, India.
Phone: (91-22) 2518 8010 / 2518 8020 / 2518 8030 extn: 4768 Fax: (91-22) 2518 8096 / 2518 8068
e-mail: rv.dubhashi@godrejinds.com

Trade name: Palmitic Acid

- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **Product related hazard informations:**
The product has been classified and marked in accordance with directives on hazardous materials.
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**
EU (EINECS) – Listed
Canada - DSL/NDL – Listed China-NEPA
(IECSC) – Listed Japan-MITI – Listed Philippines-
PICCS – Listed New Zealand (NZIoC) – Listed
Australia-AICS – Listed

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department.
- **Contact:**
Telephone: (91-22) 25188010 / 25188020 / 25188030 extn: 4662
Office hours only (08.30 – 17.00 hours GMT +4.5 hours)
Fax: (91-22) 25188096 / 25188068
Email: ar.singh@godrejinds.com, ss.patil@godrejinds.com
- **Date of preparation / last revision** 05/15/2015 / -
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
- **Sources**
 - Occupational Safety & Health Administration (OSHA)
<https://www.osha.gov/Publications/OSHA3514.html>
 - Data from published dossier on ECHA website:
<http://apps.echa.europa.eu/registered/data/dossiers/DISS-9d986157-7056-5eb0-e044-00144f67d249/DISS-9d986157-7056-5eb0-e044-00144f67d249 DISS-9d986157-7056-5eb0-e044-00144f67d249.html>
 - Data from Toxnet database
<http://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~j4cOul:3>
- *** Data compared to the previous version altered.**
 - Section 1: Identification of the substance/preparation & of the company/undertaking.
 - Section 3: Composition/Information on Ingredients
 - Section 4: First-aid measures.

(Contd. on page 8)

USA

Godrej Industries Limited

Registered office: Pirojshanagar, Eastern Express Highway, Vikhroli, Mumbai 400 079, India.
Phone: (91-22) 2518 8010 / 2518 8020 / 2518 8030 extn: 4768 Fax: (91-22) 2518 8096 / 2518 8068
e-mail: rv.dubhashi@godrejinds.com

Trade name: Palmitic Acid

(Contd. of page 7)

- *Section 5: Fire-fighting measures*
- *Section 6: Accidental Release measures*
- *Section 7: Handling and storage.*
- *Section 8: Exposure Controls/Personal protection.*
- *Section 9: Physical and Chemical properties.*
- *Section 10: Stability and Reactivity.*
- *Section 11: Toxicological Information.*
- *Section 12: Ecological Information.*
- *Section 13: Disposal consideration*
- *Section 15: Regulatory information*

USA