

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 12.04.2011

Version: 1

Revision: 12.04.2011

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** 12-hydroxystearic acid
- **CAS Number:**
106-14-9
- **EINECS Number:**
203-366-1
- **Relevant identified uses of the substance or mixture and uses advised against:** -
- **Application of the substance / the preparation:** Raw material for industrial applications
- **Details of the supplier of the safety data sheet**
- **Supplier/Manufacturer:**
Penpet Petrochemical Trading GmbH
Mercurring 105
22143 Hamburg
Germany
Tel: +49 40 675 799 0
Fax: +49 40 675 799 99 / 88
- **Email competent person:** angelika.torges@kft.de
- **Information department:** See supplier/manufacturer
- **Emergency telephone number:**
National Poisons Information Service (NPIS)
24 hour national number is 0844 892 0111 professionals only

- National Health Service (NHS)
24 hour national number is 0845 4647 consumer

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008** The substance is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** not applicable
- **Information concerning particular hazards for human and environment:**
According to current European laws and regulations the product is not dangerous or toxic material (based on the available data).
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Hazard classification:** Void
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Substance characteristics do not meet screening criteria.
- **vPvB:** Substance characteristics do not meet screening criteria.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description:**
106-14-9 12-hydroxystearic acid
- **Identification number(s):**
- **EINECS Number:** 203-366-1

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4 First aid measures

- **Description of first aid measures**
- **General information:** If symptoms persist or in case of doubt, seek medical advice.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness, place patients on their side in a stable position for transportation.
- **After skin contact:**
Wash with water and soap.
Generally the product does not irritate the skin.
- **After eye contact:**
Rinse the eyes with open eyelids for 10 - 15 minutes with water.
If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms occur or after swallowing larger quantities, consult a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** Symptomatic treatment

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Foam
Fire-extinguishing powder
Carbon dioxide (CO₂)
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** High volume water jet
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Carbon dioxide
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information:** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Ensure adequate ventilation.
Avoid formation of dust.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Do not allow to penetrate the ground/soil.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Make sure to recycle or dispose of in suitable receptacles.
- **Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Keep away from heat and direct sunlight.
- **Information about protection against explosions and fires:** Observe the general rules of industrial fire protection.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store at ambient temperatures and at dry conditions.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from feed.
Store away from oxidizing agents.
Do not store together with alkalies (caustic solutions).
- **Further information about storage conditions:**
Protect from heat (steam pipes, radiators etc.) open flames, other ignition sources and direct sunlight.
- **Storage class:** 11 Combustible solids

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **CAS No. Designation of material % Type Value Unit**
- **Additional Occupational Exposure Limit Values for possible hazards during processing:**
Observe general threshold limit for dust.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures should be adhered to when handling chemicals.
Do not eat or drink while working.
Use skin protection cream for skin protection.
After skin contact cleanse skin thoroughly.
After contact with eyes rinse immediately.
- **Breathing equipment:**
Not necessary if room is well-ventilated.
At formation of dust:
Dust protection mask
- **Protection of hands:**
Protective gloves.
To avoid skin problems reduce the wearing of gloves to the required minimum.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material in consideration of the penetration times, rates of diffusion and the degradation.
After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves:**
For undissolved solid substances following materials may be suitable:
Nitrile rubber (NBR), Butyl rubber (BR), Fluorocarbon rubber (FKM) and Polychloroprene rubber (CR).
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 penetration time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

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- **Body protection:** Protective work clothing.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information:

· Appearance:

Form:	Solid. Flakes
Colour:	Whitish Yellowish
· Odour:	Weak, characteristic
· Odour threshold:	not applicable
· pH-value:	not applicable

· Change in condition:

Melting point/Melting range:	75-78°C
Boiling point/Boiling range:	265°C (101,3 kPa)

- Flash point: 230°C
not applicable
- Flammability (solid, gaseous): Product is not flammable.
- Ignition temperature: 240°C
- Decomposition temperature: > 200°C
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
 - Lower: not applicable
 - Upper: not applicable
- Vapour pressure at 20°C: < 0.0000257 Pa
- Density at 20°C: 1.01 g/cm³
- Solubility in / Miscibility with Water at 20°C: 0.976 mg/l
- Segregation coefficient (n-octanol/water): 5,7
- Viscosity:
 - dynamic: Not applicable.
 - kinematic: Not applicable.
 - Surface tension: not applicable

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
To avoid thermal decomposition do not overheat.
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Incompatible materials:** Alkalis

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· **Hazardous decomposition products:** No hazardous decomposition products; if instructions for storage and handling are followed.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Oral LD₅₀ > 10000 mg/kg (rat/male)

- **Primary irritant effect:**

- **on the skin:** No irritating effect species: rabbit OECD test 404

- **on the eye:** No irritating effect species: rabbit(eye) OECD test 405

- **On respiratory tract:** No data available.

- **Sensitization:** No sensitizing effects known.

- **Other information (about experimental toxicology):**

Mouse lymphoma assay (OECD 476): negative

Ames-test: negative

- **Carcinogenic, mutagenic effects and adverse effects on reproduction:**

Presently available data show no carcinogenic, mutagenic or teratogenic effects.

Oral NOAEL (P) ≥9.13-≤10.2 mg/kg bw/day (rat) (OECD 422)

13 weeks

test substance: castor oil

- **Subacute to chronic toxicity:**

- **STOT-single exposure** No classification

- **STOT-repeated exposure:** No classification

- **Aspiration hazard** not relevant

- **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The substance is not subject to classification according to the latest version of the EU lists.

- **Repeated dose toxicity:**

Oral NOAEL 5000 mg/kg bw/d (rat) (OECD 422)

13 weeks

test substance: castor oil

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

EC₅₀/48h (static) > 100 mg/l (daphnia magna) (OECD 202)

E₁₀/C₅₀ > 100 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
72h

LC₅₀/96h > 9900 mg/l (fish) (ISO 7346-1)
Read across (fatty acid, castor oil hydrated)

NOEC (static) ≥ 100 mg/l (daphnia magna) (OECD 202)
≥ 100 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
72h

3000 mg/l (pseudomonas putida) (DIN 38412, part 8)

Read across (fatty acid, castor oil, hydrogenated)

- **Persistence and degradability** Easily biodegradable

- **Other information:**

Biological degradation: 95 % after 21 days

OECD 301 B

- **Behaviour in environmental systems:**

- **Adsorption coefficient K_{oc}:** 902,5 K_{oc} (l/kg)

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- **Additional ecological information:**
- **General notes:**
Generally not hazardous for water.
Classification based on data for CAS 61790-39-4 Fatty acids, castor-oil, hydrogenated (ident no. 3073)
- **Results of PBT and vPvB assessment**
- **PBT:** Substance characteristics do not meet screening criteria.
- **vPvB:** Substance characteristics do not meet screening criteria.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Disposal according to instructions of local authorities.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** No hazardous good according to the regulation.
- **Maritime transport IMDG:**
- **IMDG Class:** No hazardous good according to the regulation.
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** No hazardous good according to the regulation.
- **Special precautions for user** Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Water hazard class:** Generally not hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

- **Replaces version dated:** 31.05.2010

· **Department issuing MSDS:**
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- **Contact:** Angelika Torges

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

Sources:

National Institute of Technology and Evaluation (Japan)
IUCLID-Dossier from ECHA

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