Safety Data Sheet
According to EC Directive 91/155/EEC

Date of issue: 13.10.2003

1. Identification of the substance/preparation and of the company/undertaking

   Identification of the product
   Catalogue No.: 100661
   Product name: Stearic acid vegetable grade Ph Eur,BP,JP,NF

   Use of the substance/preparation
   Pharmaceutical production and analysis

   Company/undertaking identification
   Company: Merck KGaA * 64271 Darmstadt * Germany * Phone: +49 6151 72-0
   Emergency telephone No.: Please contact the regional Merck representation in your country.

2. Composition/information on ingredients

   CAS-No.: 57-11-4
   M: 284.48 g/mol
   EC-No.: 200-313-4
   Formula Hill: C\textsubscript{18}H\textsubscript{36}O\textsubscript{2}

3. Hazards identification

   No hazardous product as specified in Directive 67/548/EEC.

4. First aid measures

   After inhalation: fresh air.
   After skin contact: wash off with plenty of water. Remove contaminated clothing.
   After eye contact: rinse out with plenty of water with the eyelid held wide open.
   After swallowing (large amounts): consult doctor if feeling unwell.

5. Fire-fighting measures

   Suitable extinguishing media:
   CO\textsubscript{2}, foam, powder.

   Special risks:
   Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

   Special protective equipment for fire fighting:
   Do not stay in dangerous zone without self-contained breathing apparatus.

6. Accidental release measures

   Person-related precautionary measures:
   Avoid inhalation of dusts.

   Procedures for cleaning / absorption:
   Take up dry. Forward for disposal. Clean up affected area. Avoid generation of dusts.
7. Handling and storage

*Handling:*

Store protected from solvents.

*Storage:*

Tightly closed. Dry. At +15°C to +25°C.

8. Exposure controls/personal protection

*Personal protective equipment:*

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

- **Respiratory protection:** required when dusts are generated.
- **Eye protection:** required
- **Hand protection:**
  - In full contact:
    - Glove material: nitrile rubber
    - Layer thickness: 0.11 mm
    - Breakthrough time: > 480 Min.
  - In splash contact:
    - Glove material: nitrile rubber
    - Layer thickness: 0.11 mm
    - Breakthrough time: > 480 Min.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example KCL 740 Dermatril® (full contact), 740 Dermatril® (splash contact). The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

- **Industrial hygiene:**
  - Wash hands after working with substance.

9. Physical and chemical properties

- **Form:** solid
- **Colour:** white
- **Odour:** rancid
- **pH value:** not available
- **Melting point:** 67 °C
- **Boiling point:** 383 °C
- **Ignition temperature:** 395 °C
- **Flash point:** 196 °C c.c.
According to EC Directive 91/155/EEC

Catalogue No.: 100661
Product name: Stearic acid vegetable grade Ph Eur,BP,JP,NF

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion limits</td>
<td>not available</td>
</tr>
<tr>
<td>Density (20 °C)</td>
<td>0.94 g/cm³</td>
</tr>
<tr>
<td>Bulk density</td>
<td>~ 400-500 kg/m³</td>
</tr>
<tr>
<td>Solubility in water (20 °C)</td>
<td>insoluble</td>
</tr>
<tr>
<td>Solubility in ethanol (20 °C)</td>
<td>~ 50 g/l</td>
</tr>
<tr>
<td>Mean particle size</td>
<td>~ 35 µm</td>
</tr>
<tr>
<td>log Pow</td>
<td>8.23</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

Conditions to be avoided
no information available

Substances to be avoided
Violent reactions possible with: strong oxidizing agents.

Hazardous decomposition products
no information available

11. Toxicological information

Acute toxicity
LD₅₀ (dermal, rabbit): >5000 mg/kg.

Further toxicological information
After inhalation: In high doses: Irritation symptoms in the respiratory tract.
After skin contact: Possible effect after contact with substance: slight irritation symptoms.

Further data
Naturally occurring substance.
The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Behavior in environmental compartments:
Distribution: log p(o/w): 8.23.
An appreciable bioaccumulation potential is to be expected (log P(o/w) >3).

Ecotoxic effects:
Quantitative data on the ecological effect of this product are not available.

Further ecologic data:
Degradability:
BOD 4 % from TOD /5 d.

No ecological problems are to be expected when the product is handled and used with due care and attention.
13. Disposal considerations

Product:
Chemicals must be disposed of in compliance with the respective national regulations. Under www.retrologistik.de you will find country- and substance-specific information as well as contact partners.

Packaging:
Merck product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Under www.retrologistik.de you will find special information on the respective national conditions as well as contact partners.

14. Transport information

Not subject to transport regulations.

15. Regulatory information

Labelling according to EC Directives
Symbol: ---
R-phrases: ---
S-phrases: ---

16. Other information

Reason for alteration
Chapter 8: personal protective equipment.
Chapter 1: change in product name.
General update.

Regional representation:
This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.