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

Product Name
Nutrinova® Potassium Sorbate Powder

Manufacturer or supplier's details
Celanese Sales Germany GmbH
Am Unisys-Park 1
65843 Sulzbach (Taunus)
Germany

Product Information
HazCom@celanese.com

Emergency telephone number
+(65) 62656917 (Operations Room direct dial)
or fax request to +(65) 62664696 (Facsimile to Operations Room)
or email to posh.er@paccoffshore.com.sg

In China Emergency Number: 86-532-83889090 (NRCC)

Identified uses
Food industry, Pharmaceutical

2. Hazards identification

Labeling
No pictogram required

Symbol(s)

Signal Word
Warning

Hazard Statements
H320 - Causes eye irritation

Precautionary Statements
P264 - Wash hands thoroughly after handling
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
3. Composition/Information on ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium (E,E)-hexa-2,4-dienoate</td>
<td>24634-61-5</td>
<td>100</td>
</tr>
</tbody>
</table>

4. First aid measures

**Skin**
Wash off immediately with plenty of water. Get medical attention if irritation develops and persists.

**Eyes**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Inhalation**
Get medical attention immediately if symptoms occur.

**Ingestion**
Do NOT induce vomiting. Call a physician immediately.

5. Fire-fighting measures

**NFPA:**
- Health: 2
- Flammability: 0
- Instability: 0

**Suitable extinguishing media**
Carbon dioxide (CO2), Water spray, Foam, Dry chemical

**Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases**
Under conditions giving incomplete combustion, hazardous gases produced may consist of
- Carbon monoxide
- Carbon dioxide (CO2)
Combustion gases of organic materials must in principle be graded as inhalation poisons

**Special protective equipment for fire-fighters**
Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

**Personal precautions**
Avoid contact with the skin and the eyes. Keep away from heat and sources of ignition. Provide adequate ventilation.

**Environmental precautions**
Prevent further leakage or spillage. Do not discharge into the drains/surface waters/groundwater.

**Methods for cleaning up**
Use mechanical handling equipment. Dispose of in accordance with local regulations.
7. Handling and storage

**Advice on safe handling**
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

**Incompatible products**
Keep away from: oxidizing agents

**Protection - fire and explosion:**
Take measures to prevent the build up of electrostatic charge. Keep away from sources of ignition - No smoking.

**Material storage**
Keep in a dry, cool place. Protect against light.

**Incompatible products**
Keep away from: oxidizing agents

**Technical measures/Storage conditions**
Keep tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

**ACGIH Exposure Limits**
No exposure limits established.

**OSHA Exposure Limits**
No exposure limits established.

**Exposure controls**

**Engineering measures**
General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

**Personal protective equipment**

**General advice**
Do not breathe dust. Avoid contact with skin and eyes.

**Hygiene measures**
Avoid contact with the skin and the eyes. When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday.

**Respiratory protection**
respirator with P2 filter. Equipment should conform to EN 136 or EN 140 and EN 143.

**Eye protection**
Tightly fitting safety goggles. Face-shield.

**Skin protection**
protective suit

**Hand protection**

**Suitable material**
Chemicals resistant gloves

Nitrile rubber
9. Physical and chemical properties

**Appearance**
- **Form**: solid
- **Color**: white
- **Odor**: odorless

**Flash point**: Not applicable
**Autoignition Temperature**: 178 °C
  - Method: A.16 (DI 92/69/EEC)
**Melting point/range**: 250 °C
  - Method: OECD 102
**Boiling point/range**: not applicable
  - Method: OECD 103
**Density**: 1.36 g/ml @ 20°C
  - Method: OECD 109
**pH**: 7 @ 20°C @ 543 g/l
**Vapor pressure**: 1.0 x 10^-7 hPa @ 20°C
  - Method: OECD 104
  - 1.0 x 10^-7 hPa @ 50°C
**Water solubility**: 1.95 g/l @ 20°C @ pH 4.0
  - Method: OECD 105
**Solubility in other solvents**: 30.5 g/l @ 20°C, Methanol, p-Xylene
  - Method: OECD 105
**Partition coefficient (n-octanol/water)**: -1.72 @ 20°C (pH: 6.5)
  - Method: OECD 117
**Explosive Properties**: not applicable based on consideration of the structure
**Oxidizing Properties**: not applicable based on consideration of the structure
**Surface Tension**: 72 mN/m @ 20°C
  - Concentration: 1000 mg/l
  - Method: OECD 115
**Dissociation constant (pKa)**: 4.69 ± 0.03 @ 20°C
  - Method: OECD 112
**Granulometry**: L10: 5 µm L90: 1140.0 µm
  - Method: OECD 110

10. Stability and reactivity

**Reactivity**
- Stable under normal conditions of handling, use and transportation.

**Conditions to avoid**
- Avoid dust formation..
<table>
<thead>
<tr>
<th>Incompatible Materials</th>
<th>Hazardous Combustion or Decomposition Products:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep away from: Oxidizing agents</td>
<td>Thermal decomposition products may include oxides of carbon.</td>
</tr>
</tbody>
</table>
11. Toxicological information

Potential health effects

Routes of exposure  Skin, eyes, inhalation.

Immediate effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>Essentially non-irritating.</td>
</tr>
<tr>
<td>Eyes</td>
<td>Causes eye irritation.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No adverse health effects have been observed.</td>
</tr>
</tbody>
</table>

Potassium (E,E)-hexa-2,4-dienoate

Acute oral toxicity  
LD50: > 10000 mg/kg, rat  
(Reference substance: Sorbic acid)

Acute dermal toxicity  
LD50: > 2000 mg/kg, rat  
(Reference substance: Sorbic acid)

Acute inhalation toxicity  
LC50 (4h): > 5.15 mg/l  
OECD 403

Skin corrosion/Irritation  
Not irritating  
rabbit  
OECD 404

Skin Sensitization  
nonsensitizer  
(Reference substance: Sorbic acid)

guinea pig  
Similar to: EEC 96/54, B.6

Serious eye damage/eye irritation  
irritant  
rabbit eye  
OECD 405

Carcinogenic effects  
No evidence of carcinogenicity  
mice

in vitro Mutagenicity  

in vivo Mutagenicity  
Mammalian Erythrocyte Micronucleus Test in mice: negative - Method: OECD 474 (Reference substance: Sorbic acid)

Developmental effects  
No developmental or reproductive effects  
oral gavage
12. Ecological Information

Potassium (E,E)-hexa-2,4-dienoate

Acute fish toxicity
- Species: Oncorhynchus mykiss (rainbow trout)
- Method: OECD 203
- LC50: > 1000 mg/l (96h)

Acute daphnia toxicity
- Species: Daphnia magna
- Method: OECD 202
- EC50: 982 mg/l (48h)

Toxicity to bacteria
- Species: in activated sludge
- Method: OECD 209
- EC50 (3h): > 100 mg/l
  (Reference substance: Sorbic acid)

Biodegradation
- Method: OECD 301 D
- Readily biodegradable
  (Reference substance: Sorbic acid)

Other potential hazards
- The substance does not meet the criteria for PBT / vPvB according to REACH, Annex XIII

13. Disposal considerations

Product information
Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.

Uncleaned empty packaging
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

14. Transport information

US Department of Transportation Not regulated

ADR/RID Not regulated

ADN Not regulated
14. Transport information

ICAO/IATA
Not restricted

IMDG
Not regulated

15. Regulatory information

International Inventories
Australia (AICS)
Canada (DSL)
China (IECSC)
Europe (EINECS)
Japan (ENCS)
Japan (ISHL)
Korea (KECI)
New Zealand (NZIoC)
Philippines (PICCS)
United States (TSCA)

16. Other information

HMIS: Health: 2  Flammability: 0  Physical Hazard: 0

Prepared By
Product Stewardship Department
Celanese

Food / Feed Safety Emergency Contact:
24 h Food / Feed Safety Emergency No:
(Please contact only in emergency situations) +49 (0)69 305 6418

Other Information:
Observe national and local legal requirements.

Changes against the previous version are marked by ***

Sources of key data used to compile the datasheet
Information contained in this safety data sheet is based on Celanese owned data and public sources deemed valid or acceptable. The absence of data elements required by ANSI or 1907/2006/EC indicates that no data meeting these requirements is available.

Further information
This information is based on our present state of knowledge. It shall describe our products regarding safety requirements and shall not be construed as a guarantee or statement of condition and/or quality. For more information, other material safety data sheets or technical data sheets please consult the Celanese homepage (www.celanese.com)