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

1.1. Product identifier

   Product name
   
   **Vinosorb**

   REACH Registration Number
   The product is exempt from REACH registration

1.2. Relevant identified uses of the substance or mixture and uses advised against

   Identified uses
   Food additive

1.3. Details of the supplier of the safety data sheet

   **Celanese Production Germany GmbH & Co. KG**
   Am Unisys-Park 1
   65843 Sulzbach (Taunus)
   Germany***

   **Celanese Sales Germany GmbH & Co. KG**
   Am Unisys-Park 1
   65843 Sulzbach (Taunus)
   Germany***

   SDS Contact (email of responsible person)
   HazCom@celanese.com***

1.4. Emergency telephone number

   CHEMTREC: +1 703 527 3887 (Collect calls accepted)

***

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

   **Classification according to Regulation 1272/2008/EC (CLP)**

   **Basis for Classification**
   This substance is classified based on Directive 1272/2008/EC and its amendments (CLP Regulation, GHS).***

   **Classification**
   
   **Hazard Category**
   Serious eye damage/eye irritation Category 2

2.2. Label elements

   **Symbol(s)**
Signal Word: Warning***

Hazard Statements
H319 - Causes serious eye irritation

Precautionary Statements
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
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

2.3 Other Hazards
The substance does not meet the criteria for PBT / vPvB according to REACH, Annex XIII.***

SECTION 3: Composition/information on ingredients

3.1. Substances
not applicable

3.2. Mixtures
not applicable

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No</th>
<th>EC-No.</th>
<th>Identification Number</th>
<th>Percent %</th>
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<tr>
<td>Potassium (E,E)-hexa-2,4-dienoate</td>
<td>24634-61-5</td>
<td>246-376-1</td>
<td>none</td>
<td>&gt; 99</td>
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</table>

Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures, Annex VI, Table 3.1

<table>
<thead>
<tr>
<th>Components</th>
<th>1272/2008/EC (CLP)</th>
<th>Hazard Statements</th>
</tr>
</thead>
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<tr>
<td>Potassium (E,E)-hexa-2,4-dienoate</td>
<td>Serious eye damage / eye irritation - Category 2</td>
<td>H319</td>
</tr>
</tbody>
</table>

Remarks
For the full text of the H-statements mentioned in this Section, see Section 16***

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Get medical attention immediately if symptoms occur.

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.

Ingestion
Do NOT induce vomiting.. Call a physician immediately.
4.2. Most important symptoms and effects, both acute and delayed

Main symptoms
None known

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture
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

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with the skin and the eyes. Keep away from heat and sources of ignition. Provide adequate ventilation.

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

6.3. Methods and material for containment and cleaning up
Use mechanical handling equipment. Dispose of in accordance with local regulations.

6.4. Reference to other sections
Consult trained personnel. Consider the information for "Personal Protection" in chapter 8 of this Safety Data Sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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.***

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.

Reduce the release of the substance or mixture to the environment
See Section 8: Environmental exposure controls

Temperature class
T4

7.2. Conditions for safe storage, including any incompatibilities

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.

German storage class
11: Combustible solids

7.3. Specific end use(s)
None known

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

EC Exposure Limit Values
No exposure limits established.

DNELs
The product is exempt from REACH registration

PNECs
The product is exempt from REACH registration

8.2. 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
Avoid contact with skin and eyes. Do not breathe dust.

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
- Chemicals resistant gloves

Suitable material
- nitrile rubber
  - Type: Tricotril (Company KCL) or comparable article;
  - Evaluation: according to EN 374: level 6
  - Material thickness: approx. 1.5 mm
  - Break through time: 480 min

Suitable material
- butyl-rubber
  - Type: Butoject (Company KCL) or comparable article;
  - Evaluation: according to EN 374: level 6
  - Material thickness: approx. 0.3 mm
  - Break through time: 480 min

Environmental exposure controls
- Do not discharge into the drains/surface waters/groundwater

Environmental Precautions
- Should not be released into the environment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
- Form: solid
- Color: white
- Odor: slightly pungent

Autoignition Temperature
- 178 °C

Ignition temperature
- > 150°C***

Method
- EC, A.16

Melting point/range
- not determined

Boiling point/range
- not determined

Density
- 1.36 g/ml @ 23°C

Method
- OECD 109

Viscosity
- not applicable

Vapor pressure
- 1.0 x 10-7 hPa @ 20°C***

Water solubility
- 1.95 g/l @ 20°C***

Solubility in other solvents
- not determined

Partition coefficient (n-octanol/water)
- -1.72 @ 20°C (pH: 6.5)

Explosive Properties
- not applicable based on consideration of the structure

Oxidizing Properties
- not applicable based on consideration of the structure

Surface Tension
- 72.6 mN/m @ 20°C***

Dissociation constant
- pKa = 4.69 ± 0.03
SECTION 10: Stability and reactivity

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

10.2. Chemical Stability
Thermal decomposition can take place above 210°C.

10.3. Possibility of hazardous reactions
None anticipated.

10.4. Conditions to avoid
Avoid dust formation.

10.5. Incompatible Materials
Keep away from:, oxidizing agents

10.6. Hazardous decomposition products
No hazardous decomposition products are known

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

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

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

**Acute inhalation toxicity**
Species rat
LC50 (4h): > 5.15 mg/l

**Skin corrosion/irritation**
Species rabbit
Not irritating

**Serious eye damage/eye irritation**
Species rabbit eye
Irritant

**Skin Sensitization**
Species guinea pig
(nonsensitizer)

(Reference substance: Sorbic acid)

**Similar to:** EEC 96/54, B.6
SECTION 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***
SECTION 12: Ecological information

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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.

SECTION 14: Transport information

ADR/RID
Not regulated

ADN
ADN: Container and Tanker
Not regulated

ICAO/IATA
Not restricted

IMDG
Not regulated

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 1996/82/EC
Annex I, part 1
No 29
No 9i

WGK Class
1

WGK Reg. No.
5071

WGK Source
Classification according to VwVwS, Annex 3

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

15.2 Chemical Safety Assessment
Chemical Safety Assessment (CSA) is not required
Authorization - Reach Regulation, Title VII
This substance does not meet the criteria

Restrictions - Reach Regulation, Title VIII
This substance is not subject to restriction requirements

SECTION 16: Other information

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

Other Information:
• Observe national and local legal requirements

Changes against the previous version are marked by ***

Training advice
Make sure that employees are aware of the hazards / risks as detailed on this Safety Data Sheet. When wearing a breathing apparatus, the need for appropriate training needs to be considered.

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).
Abbreviation and Acronym:
ADR = Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS = Chemical Abstracts Service (division of the American Chemical Society)
CLP = Classification, Labelling and Packaging
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial Chemical Substances
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
ICAO = International Civil Aviation Organization
IMDG = International Maritime Code for Dangerous Goods
LC50 = Lethal Concentration
LD50 = Lethal Dose
LOAEC = Low Observed Adverse Effect Concentration
LOAEEL = Low Observed Adverse Effect Level
LOEL = Low Observed Effect Level
NOAEC = No Observed Adverse Effect Concentration
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
NOEL = No Observed Effect Level
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RCR = Risk Characterization Ratio
RID = Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
STOT RE = Specific Target Organ Toxicity Repeated Exposure
STOT SE = Specific Target Organ Toxicity Single Exposure
STP = Sewage Treatment Plant
vPvB = very Persistent and very Bioaccumulative***

Annex: Exposure Scenario(s)
Vinosorb is exempt from REACH registration when it is used in food, medicinal products, plant protection because it is regulated by other specific legislations
Development of Exposure Scenario is not required
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<td><strong>MSDS number</strong></td>
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<td><strong>Revision Number</strong></td>
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