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

1.1. Product identifier

   Trade name
   LICOWAX E P

   Material number: 105199

   REACH - Registration number according to article 20(3): 01-2119480145-41-0000

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

   Relevant identified uses of the substance or mixture
   
   Industry sector: Polymers industry
   
   Paints, lacquers and varnishes industry

   Type of use: Industrial uses are not restricted by REACH legislation.

1.3. Details of the supplier of the safety data sheet

   Identification of the company
   Clariant Produkte (Deutschland) GmbH

   86368 Gersthofen
   Telephone no.: +49 6196 757 60

   Information about the substance/mixture
   Division Pigments & Additives
   +49 (0)821 479 2521
   e-mail: PA.PSGERSTHOVEN@CLARIANT.COM

1.4. Emergency telephone number

   00800-5121 5121 (24 h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

   Classification according CLP regulation (Regulation (EC) No. 1272/2008, as amended)

   The product does not require classification and labelling as hazardous according to CLP/GHS.

2.2. Label elements

   Labelling according CLP regulation (Regulation (EC) No. 1272/2008, as amended)

   The product is not classified and labelled in accordance with GHS regulation and the relevant national laws.
2.3. Other hazards

According to the present state of knowledge provided this product is handled correctly, there is no danger to humans or the environment. Organic substances in powder form may have the potential to cause dust explosions. The relevant minimum standards for protective measures in the chemical industry should be observed.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

Reaction mass of Fatty acids, montan wax and Fatty acids, montan wax, ethylene esters and Montan wax

EC number: 914-475-5

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Seek medical assistance if discomfort continues

After inhalation
Remove the casualty into fresh air and keep him calm.

After contact with skin
In case of contact with skin, clean with soap and water.

After contact with eyes
In case of contact with eyes rinse thoroughly with water.

After ingestion
Summon a doctor immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms
No symptoms known currently.

Hazard
No hazards known at this time.

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

Treatment
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
- dry powder
- foam
- carbon dioxide
- water mist

5.2. Special hazards arising from the substance or mixture
None known.

5.3. Advice for firefighters

Special protective equipment for firefighting
- Use self-contained breathing apparatus
- Impermeable protective clothing (jacket and trousers) with helmet.

Further information
- Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
- Wear suitable personal protective equipment.

6.2. Environmental precautions
- Do not allow entry to drains, water courses or soil

6.3. Methods and material for containment and cleaning up
- Take up mechanically

6.4. Reference to other sections

Additional information
- Information regarding Safe handling, see chapter 7.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
- Provide suitable exhaust ventilation at processing machines.
- Take precautionary measures against electrostatic loading.

Advice on protection against fire and explosion
- Take precautions against accumulation of electrostatic charge
- The product is under certain conditions capable of dust explosion.
- The product is combustible.

Fire class : B
Dust explosion class : ST1  Capable of dust explosion
7.2. Conditions for safe storage, including any incompatibilities

**Further information on storage conditions**
- Keep container tightly closed in a cool, well-ventilated place, open and handle carefully.
- Keep away from sources of ignition.

7.3. Specific end use(s)

No further recommendations.

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**SECTION 8: Exposure controls/personal protection**

8.1. Control parameters

**Exposure limit values**
- Exposure limit values are not available.

**DNEL/DMEL values**
- DNEL/DMEL values are not available.

**PNEC values**
- PNEC values are not available.

8.2. Exposure controls

**General protective measures**
- Avoid contact of molten material with skin

**Hygiene measures**
- Wash hands before breaks and after work.
- At work do not eat, drink, smoke or take drugs.
- Use barrier skin cream.

**Hand protection**
- Nitrile rubber gloves.
- Minimum breakthrough time (glove): not determined
- Minimum thickness (glove): not determined
- Observe the information of the glove manufacturers on permeability and breakthrough times and other workplace requirements

**Eye protection**
- Safety glasses

**Body protection**
- Working clothes

---

**SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

**Physical state**
- Solid

**Form**
- Powder

**Colour**
- Slightly yellowish

**Odour**
- Not specified

**Odour threshold**
- Not tested.
### pH value
- not tested.

### Drop forming point
- approx. 81 °C
- Method: DIN/ISO 2176

### Boiling point
- Method: DSC
- Not determinable

### Flash point
- Not applicable

### Evaporation rate
- not tested.

### Flammability
- **Lower explosion limit**: not tested.
- **Upper explosive limit**: not tested.
- **Combustion number**: BZ1, Does not catch fire
  - Method: VDI 2263, ESCIS, Vol. 1

### Minimum ignition energy
- 10 mJ
- Method: Mike 3 apparatus with inductive electrical resistance

### Vapour pressure
- 0.000025 Pa (20 °C)
  - Method: OECD 104
- 0.000043 Pa (25 °C)
  - Method: OECD 104
- 0.00046 Pa (50 °C)
  - Method: OECD 104

### Vapour density relative to air
- not tested.

### Solubility in water
- 24 mg/l (20 °C)

### Soluble in ...
- 1-octanol
  - 93 mg/l (20 °C)

### Octanol/water partition coefficient (log Pow)
- approx. 0.9 (20 °C)
  - Method: OECD 107

### Ignition temperature
- not tested.

### Self-ignition temperature
- > 215 °C
  - Method: VDI 2263 (Grewer)

### Self-ignition temperature
- Method: Expert statement
  - The product melts below 160 °C. Therefore, no further testing of self-heating properties is required.

### Thermal decomposition
- >= 165 °C (Heating rate: 3 K/min)
  - Method: DTA

### Viscosity (dynamic)
- approx. 20 mPa.s (100 °C)
  - Method: DIN 53019

### Explosive properties
- Explosive according to EU supply regulations: not explosive
  - Method: Expert statement
Oxidizing properties: Type of oxidizing effect: no oxidizing properties
Method: Expert statement

Oxidizing properties: Method: Expert statement
The product does not contain organic peroxide-groups which
result from either the manufacturing process or from added
ingredients.

9.2. Other information
Density: approx. 1.02 g/cm³ (23 °C)
Method: ISO 1183

Acid number (mgKOH/g): approx. 18 mg/g
Method: ISO 2114

SECTION 10: Stability and reactivity

10.1. Reactivity
See section 10.3. "Possibility of hazardous reactions"

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
The product is not a dust explosion risk as supplied; however the build-up of fine dust can
lead to a risk of dust explosions.
The product has no corrosive-to-metals properties.
There is no evidence that the product produces flammable gases in contact with water.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
not known

10.6. Hazardous decomposition products
When handled and stored appropriately, no dangerous decomposition products are known
The product does not contain any chemical groups which suggest self-reactive
properties<(>,<)> nor is the estimated SADT greater than 75 °C<(<,>) nor is the exothermic
decomposition energy higher than 300 J/g.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute oral toxicity: LD50 > 2.000 mg/kg (rat)
Method: OECD 401
Acute dermal toxicity:  
LD50 > 2.000 mg/kg (rat)  
Method: OECD 402

Acute inhalation toxicity:  
not tested.

Irritant effect on skin:  
non-irritant (4 h, rabbit)  
Method: OECD 404

Irritant effect on eyes:  
non-irritant (72 h, rabbit eye)  
Method: OECD 405

Sensitization:  
not tested.

Repeated dose toxicity:  
not tested.

Genetic toxicity in vitro:  
not tested.

Assessment of mutagenicity:  
not tested.

Assessment of carcinogenicity:  
not tested.

Assessment of toxicity to reproduction:  
not tested.

Assessment of teratogenicity:  
No indications of toxic effects were observed in reproduction studies in animals.

SECTION 12: Ecological information

12.1. Toxicity
Fish toxicity:  
LC50 > 10.000 mg/l (96 h, zebra fish)  
Method: OECD 203  
The product was tested above its maximum solubility.

Daphnia toxicity:  
not tested.

Algae toxicity:  
NOEL (growth rate) 320 mg/l (72 h, Desmodesmus subspicatus)  
Method: OECD 201  
EL50 (growth rate) > 320 mg/l (72 h, Desmodesmus subspicatus)  
Method: OECD 201

12.2. Persistence and degradability
Biodegradability:  
> 54 % (28 d)  
Biodegradable  
Method: OECD 301 D  
The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.

12.3. Bioaccumulative potential
Bioaccumulation:  
not available
12.4. Mobility in soil

Behaviour in environmental compartments
No known data.

12.5. Results of PBT and vPvB assessment

No information is available as no chemical safety report (CSR) is required.

12.6. Other adverse effects

Additional ecotoxicological remarks
No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product
Can be disposed of or incinerated together with household refuse in accordance with the regulations after consultation with the disposal agency and the relevant authorities.

Uncleaned packaging
Packaging that cannot be cleaned should be disposed of as product waste.

SECTION 14: Transport information

Section 14.1. to 14.5.

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14.6. Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

Apart from the data/regulations specified in this chapter, no further information is available concerning safety, health and environmental protection.

15.2. Chemical safety assessment

No Chemical Safety Assessment (CSA) is yet available for the substance, or for the component substances, contained in this product.

SECTION 16: Other information

On the basis of an extensive test program, which had to be submitted to the competent authority on the occasion of the Notification of the substance in the European Community, this product was found to be toxicologically not dangerous within the meaning of the EC Directives.

Decimal notation: "thousands" places are identified with a dot (for example, "2,000 mg/kg" means "two thousand mg/kg"). Decimal places are identified with a comma (for example, "1,35 g/cm³" means "one point three five g/cm³").

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