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

1.1. Product identifier
Trade name
LICOWAX C P
Material number: 107076
REACH - Registration number according to article 20(3):
01-2119487304-36-0002
Chemical nature: Bisstearoylethylenediamide
EC number: 931-299-4

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
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 Plastics & Coatings (Deutschland) GmbH
65926 Frankfurt am Main
Telephone no.: +49 69 305 18000

Information about the substance/mixture
BU Additives
Product Stewardship
e-mail: SDS.Europe@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 (REGULATION (EC) No 1272/2008)
Not a hazardous substance or mixture.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Not a hazardous substance or mixture.

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Does not require a hazard warning label, but the normal safety precautions for handling chemicals must be observed.
Dust can form an explosive mixture in air.

SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Bisstearoylethylenediamide</th>
</tr>
</thead>
</table>

Hazardous components

| Remarks | No hazardous ingredients |

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: Get medical advice/attention if you feel unwell.

In case of skin contact:
- Cool skin rapidly with cold water after contact with molten material.
- Do not peel solidified product off the skin.
- Get medical attention.

In case of eye contact:
- Rinse the affected eye with plenty of water, at the same time keep the unaffected eye well protected.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No symptoms known currently.

Risks: 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

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Foam</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Water spray jet</td>
</tr>
<tr>
<td></td>
<td>Dry powder</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unsuitable extinguishing media</th>
<th>High volume water jet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Carbon dioxide (CO2)</td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: None known.
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

LICOWAX C P

Substance key: SXR021341
Revision Date: 29.12.2017
Version : 2 - 20 / EU
Date of printing : 20.03.2018

5.3 Advice for firefighters

Special protective equipment : Impervious clothing Protective helmets In the event of fire, wear self-contained breathing apparatus.

Further information : Wear suitable protective equipment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear suitable protective equipment.

6.2 Environmental precautions

Environmental precautions : The product should not be allowed to enter drains, water courses or the soil.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Take up mechanically Avoid dust formation. Take measures to prevent the build up of electrostatic charge. Risk of dust explosion. Treat recovered material as described in the section “Disposal considerations”.

6.4 Reference to other sections

Information regarding Safe handling, see chapter 7., For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Provide appropriate exhaust ventilation at machinery.

Advice on protection against fire and explosion : Take measures to prevent the build up of electrostatic charge. Observe the general rules of industrial fire protection

Combustible material

Dust may form explosive mixture in air. Electrical equipment should be protected to the appropriate standard.

Hygiene measures : Wash hands before breaks and at the end of workday. When using do not eat, drink or smoke. Use protective skin cream before handling the product.

Fire-fighting class : B
8.2 Exposure controls

Engineering measures
Use adequate exhaust ventilation and/or dust collection to keep dust levels below exposure limits.

Personal protective equipment
Eye protection : Safety glasses
Hand protection
Remarks : Nitrile rubber gloves. Minimum breakthrough time (glove): not
determined. Minimum thickness (glove): not determined. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Skin and body protection: working clothes
Respiratory protection: In case of inadequate ventilation wear respiratory protection.
Protective measures: When working with hot material, avoid contact with skin.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: powder
Colour: off-white
Odour: not specified
pH: not tested.

Drop point: approx. 142 °C
Method: DIN/ISO 2176
GLP: no

Melting point: 144 °C
Method: DSC
GLP: no

Boiling point: Decomposes below the boiling point.

Flash point: Not applicable

Burning number: not tested.

Vapour pressure: 0.000023 Pa (20 °C)
Method: OECD Test Guideline 104
GLP: yes

0.000042 Pa (25 °C)
Method: OECD Test Guideline 104
GLP: yes

0.00062 Pa (50 °C)
Method: OECD Test Guideline 104
GLP: yes

Density: approx. 1 g/cm³ (23 °C)
Method: ISO 1183

Solubility(ies)
Water solubility : insoluble (20 °C)
Partition coefficient: n-octanol/water : not determined
Decomposition temperature : > 200 °C
Method: DTA
No decomposition if used as directed.
Viscosity
Viscosity, dynamic : approx. 10 mPa.s (150 °C)
Method: DIN 53019
Oxidizing properties : The substance or mixture is not classified as oxidizing.
Method: Expert judgement
The product does not contain organic peroxide-groups which result from either the manufacturing process or from added ingredients.

9.2 Other information
Dust deflagration index (Kst) : 63 m.b_/s
Dust explosion class : ST1 Capable of dust explosion
Minimum ignition energy : 100 - 300 mJ (20 °C)
Method: Mike 3 apparatus with inductive electrical resistance
100 - 300 mJ (60 °C)
Method: Mike 3 apparatus with inductive electrical resistance
Particle size : 218 µm
Method: ISO 13320-1
Median value
Self-ignition : Method: Expert judgement
The substance or mixture is not classified as pyrophoric. The product melts below 160 °C. Therefore, no further testing of self-heating properties is required.

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
Hazardous reactions : The substance or mixture does not emit flammable gases in
contact with water.
Not corrosive to metals

10.4 Conditions to avoid
Conditions to avoid: no data available

10.5 Incompatible materials
Materials to avoid: not known

10.6 Hazardous decomposition products
Possible in traces:
Nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity
Product:
Acute oral toxicity: LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity: LC50 (Rat, male and female): > 6,3 mg/l
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity: LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation
Product:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Serious eye damage/eye irritation
Product:
Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation

Respiratory or skin sensitisation
Product:
Species: Mouse
Method: OECD Test Guideline 429
Result: Not a skin sensitizer.
Germ cell mutagenicity

**Product:**
Genotoxicity in vitro: Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Test Type: Mammalian cell gene mutation assay
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Germ cell mutagenicity - Assessment: In vitro tests did not show mutagenic effects

Carcinogenicity

**Product:**
Carcinogenicity - Assessment: No information available.

Reproductive toxicity

**Product:**
Effects on foetal development: Test Type: Pre-natal
Species: Rat
Strain: Sprague-Dawley
Application Route: oral (gavage)
General Toxicity Maternal: NOAEL: \( \geq 1.000 \) mg/kg body weight
Method: OECD Test Guideline 414

Reproductive toxicity - Assessment: No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

STOT - single exposure

**Product:**
Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure

Product:
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Product:
Species: Rat, male and female
NOEL: >= 1000 mg/kg bw/day
Application Route: oral (gavage)
Method: OECD Test Guideline 408

Aspiration toxicity

Product:
no data available

SECTION 12: Ecological information

12.1 Toxicity

Product:
Toxicity to fish : LC50 (Oryzias latipes (Orange-red killifish)): 0,027 mg/l
   End point: mortality
   Exposure time: 96 h
   Method: OECD Test Guideline 203
   Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,0022 mg/l
   Exposure time: 48 h
   Test Type: semi-static test
   Method: OECD Test Guideline 202
   Remarks: No toxicity at the limit of solubility

Toxicity to algae : NOEC (Pseudokirchneriella subcapitata (algae)): 0,053 mg/l
   Exposure time: 72 h
   Method: OECD Test Guideline 201
   Remarks: No toxicity at the limit of solubility

Toxicity to fish (Chronic toxicity) : Remarks: no data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50: 0,0056 mg/l
   Exposure time: 21 d
   Species: Daphnia magna (Water flea)
   Method: OECD Test Guideline 211
   Remarks: No toxicity at the limit of solubility

Toxicity to microorganisms : EC50 (activated sludge): > 1.000 mg/l
   Exposure time: 3 h
Test Type: static test  
Method: OECD Test Guideline 209

Toxicity to soil dwelling organisms  
NOEC: \(\geq 1.000\) mg/kg  
Exposure time: 56 d  
Species: Eisenia fetida (earthworms)  
Method: OECD Test Guideline 222

Sediment toxicity  
NOEC: \(\geq 1000\) mg/kg dry weight (d.w.)  
Test Type: static test  
Sediment: Artificial sediment  
Exposure duration: 28 d  
Method: OECD Test Guideline 218

12.2 Persistence and degradability

Product:

Biodegradability  
Test Type: aerobic  
Inoculum: activated sludge  
Result: Not readily biodegradable.  
Biodegradation: 5,5 %  
Related to: Carbon dioxide (CO2)  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Product:

Bioaccumulation  
Remarks: Bioaccumulation is unlikely.

12.4 Mobility in soil

Product:

Distribution among environmental compartments  
\(\log K_{oc}: 8.6 - 8.91\)  
Method: calculated

12.5 Results of PBT and vPvB assessment

Product:

Assessment  
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

Additional ecological information  
Product is insoluble in water  
May be separated mechanically in waste water plants.
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product: In accordance with the necessary technical regulations may be dumped with household waste, after consultation with site operator and with the responsible authority

Consider recycling.

Contaminated packaging: Packaging that cannot be cleaned should be disposed of as product waste

SECTION 14: Transport information

Section 14.1. to 14.5.

ADR: not restricted
ADN: not restricted
RID: not restricted
IATA: not restricted
IMDG: not restricted

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 (International Bulk Chemicals 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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59): Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants: Not applicable
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

Full text of other abbreviations
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further 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.
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