

## LIOCENE PE 4201 GR

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Version : 4 - 1 / USA

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## SECTION 1. IDENTIFICATION

<b>Identification of the company:</b>	Clariant Plastics & Coatings (Deutschland) GmbH Frankfurt am Main, 65926 Telephone No.: +49 69 305 18000
	<b>Information of the substance/preparation:</b> Product Stewardship, +1-704-331-7710
	<b>Emergency tel. number:</b> +1 800-424-9300 CHEMTREC

**Trade name:** LIOCENE PE 4201 GR  
**Material number:** 186154  
**CAS number:** 9002-88-4  
**Primary product use:** Additive  
**Chemical family:** Polyethylene wax

## SECTION 2. HAZARDS IDENTIFICATION

**GHS classification in accordance with 29 CFR 1910.1200**

Not a hazardous substance or mixture.

**GHS label elements**

Not a hazardous substance or mixture.

**Other hazards**

No additional hazards are known except those derived from the labelling.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance  
Substance name : Polyethylene wax  
CAS-No. : 9002-88-4

**Components**

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

## SECTION 4. FIRST AID MEASURES

General advice : Get medical advice/ attention if you feel unwell.  
If inhaled : Move the victim to fresh air.  
Give oxygen or artificial respiration if needed.

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- Get immediate medical advice/ attention.  
Never give anything by mouth to an unconscious person.
- In case of skin contact : Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Get medical attention immediately if irritation develops and persists.
- If swallowed : If conscious, give the victim plenty of water to drink.  
Consult a physician.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : The possible symptoms known are those derived from the labelling (see section 2).  
No additional symptoms are known.
- Notes to physician : Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water mist  
Foam  
Dry powder  
Carbon dioxide (CO<sub>2</sub>)
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Emits toxic fumes under fire conditions. This product presents no unusual fire or explosion hazards while sealed in a shipping container. During usage, if a dust cloud is generated, organic powders have the potential to be explosive with static spark or flame initiation.
- Further information : Firefighters should wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Use water spray to cool exposed containers. Avoid use of a direct full pressure stream of water as molten wax may be spread to ignition sources or carry fire to other flammable materials. Use a water fog or foam to control fire.
- Special protective equipment for firefighters : Self-contained breathing apparatus
- Impervious clothing  
Protective helmets

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#### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear suitable protective equipment.  
Wearing appropriate personal protective equipment, contain spill and collect into a suitable container.  
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.
- Environmental precautions : The product should not be allowed to enter drains, water courses or the soil.
- Methods and materials for containment and cleaning up : Take up mechanically

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#### SECTION 7. HANDLING AND STORAGE

- 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
- Advice on safe handling : Avoid dust formation. Keep away from sources of ignition.  
Lead off electrostatic charges.  
Avoid inhalation, ingestion and contact with skin and eyes.  
Wash thoroughly after handling.
- Further information on storage conditions : Store in original container.  
Keep container tightly closed.  
Store in a cool, dry, well-ventilated area.

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#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures** : A system of local and/or general exhaust is recommended where employee exposures are at or above Occupational Exposure Limits (OEL).

##### Personal protective equipment

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided

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by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection	:	
Remarks	:	Butyl Rubber, PVC Or Neoprene.
Eye protection	:	Safety glasses with side-shields
Skin and body protection	:	Wear protective clothing, including long sleeves and gloves, to prevent skin contact.
Protective measures	:	When working with hot material, avoid contact with skin.
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.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	:	Granules
Colour	:	white
Odour	:	not specified
Odour Threshold	:	Not tested
pH	:	not tested.
Drop point	:	approx. 262 °F / 128 °C Method: ASTM D 3954-94
Melting point	:	248 °F / 120 °C
Boiling point	:	not determined
Flash point	:	441 °F / 227 °C  Method: DIN EN 22719 / ISO 2719 (closed cup)
Evaporation rate	:	not determined
Flammability (solid, gas)	:	not determined
Self-ignition	:	Method: Expert judgement

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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.

Burning number	:	2 Short flaring up without spreading
Upper explosion limit / upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Vapour pressure	:	not determined
Relative vapour density	:	not determined
Relative density	:	no data available
Density	:	approx. 0.97 g/cm <sup>3</sup> (73 °F / 23 °C) Method: ISO 1183
Bulk density	:	not tested.
Solubility(ies)		
Water solubility	:	insoluble (68 °F / 20 °C)
Solubility in other solvents	:	Not applicable
Partition coefficient: n-octanol/water	:	not tested.
Auto-ignition temperature	:	not tested.
Decomposition temperature	:	No decomposition if used as directed.
Viscosity		
Viscosity, dynamic	:	approx. 60 mPa.s (284 °F / 140 °C) Method: DIN 53019
Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive Method: Expert judgement
Oxidizing properties	:	Method: Expert judgement not oxidizing The product does not contain organic peroxide-groups which result from either the manufacturing process or from added ingredients.
Surface tension	:	Based on chemical structure, no surface activity is expected or can be predicted.

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Particle size : 5 mm

**SECTION 10. STABILITY AND REACTIVITY**

- Reactivity : No decomposition if used as directed.
- Chemical stability : Stable
- 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 substance or mixture does not emit flammable gases in contact with water.  
Not corrosive to metals
- Conditions to avoid : None known.
- Incompatible materials : no data available
- Hazardous decomposition products : No hazardous decomposition products if stored and handled as prescribed

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

Eye contact  
Skin contact  
Inhalation

**Acute toxicity****Product:**

- Acute oral toxicity : Remarks: no data available
- Acute inhalation toxicity : Remarks: no data available
- Acute dermal toxicity : Remarks: no data available

**Skin corrosion/irritation****Product:**

Remarks: no data available

**Serious eye damage/eye irritation****Product:**

Remarks: no data available

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**Respiratory or skin sensitisation****Product:**

Remarks: no data available

**Carcinogenicity****IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Experience with human exposure****Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

**Further information****Product:**

Remarks: The product has not been tested. The statements are derived from products of a similar composition.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

Toxicity to fish : Remarks: no data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: no data available

Toxicity to algae/aquatic plants : Remarks: no data available

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

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: no data available

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**Persistence and degradability****Product:**

Biodegradability : Remarks: no data available

**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: no data available

**Mobility in soil**

no data available

**Other adverse effects****Product:**

Additional ecological information : Product is insoluble in water  
Harmful effects to fish and bacteria: not harmful  
May be separated mechanically in waste water plants.  
The ecotoxicity of the product has not been tested. The information given is based on products of similar structure or composition.

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

RCRA - Resource Conservation and Recovery Act : This product, if discarded as sold, is not a Federal RCRA hazardous waste.

Waste Code : NONE

Waste from residues : Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

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

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**SECTION 14. TRANSPORT INFORMATION**

DOT not restricted

IATA not restricted

IMDG not restricted

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**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.



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**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

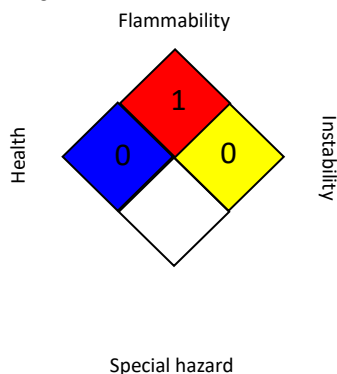
**Clean Water Act**

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**The components of this product are reported in the following inventories:**

TSCA : On TSCA Inventory, All components are compliant with the TSCA Inventory Notification (Active) rule.

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**SECTION 16. OTHER INFORMATION****Further information****NFPA 704:****Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous

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Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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.

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

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This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application. NO EXPRESS OR IMPLIED WARRANTY IS MADE OF THE MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OF ANY PRODUCT OR SERVICE. Nothing included in this information waives any of Clariant's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

# SAFETY DATA SHEET



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