SECTION 1. IDENTIFICATION

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

Trade name: **LICOWAX OP FL**
Material number: 105206

Chemical family: An ester of mixed montan acids (ca. C24-C34)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Combustible dust :

GHS Label element

Signal word : Warning

Hazard statements : May form combustible dust concentrations in air

Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243 Take precautionary measures against static discharge.
P233 Keep container tightly closed.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
Product	Not Assigned	<= 100

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.

		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 swallowed, DO NOT induce vomiting. Do not give anything to drink. Call a physician immediately.
Most important symptoms and effects, both acute and delayed	:	No symptoms known currently. No hazards known at this time.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Foam Water spray jet Dry powder
Unsuitable extinguishing media	:	High volume water jet Carbon dioxide (CO2)
Specific hazards during firefighting	:	None known.
Further information	:	Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.
Special protective equipment for firefighters	:	Wear personal protective equipment. In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Wear suitable protective equipment. Collect into suitable container. Electrical grounding of equipment is required when handling powder to prevent possible dust explosion.
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

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Take measures to prevent the build up of electrostatic charge. Combustible material
Advice on safe handling	:	Avoid inhalation, ingestion and contact with skin and eyes. Wash thoroughly after handling. Avoid dust formation. Keep away from sources of ignition. Lead off electrostatic charges.
Technical measures/Precautions	:	Store in original container. Keep container tightly closed. Store in a cool, dry, well-ventilated area.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Personal protective equipment

Respiratory protection	:	Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.
Hand protection Remarks	:	Butyl Rubber, PVC Or Neoprene.
Eye protection	:	Safety glasses or chemical splash goggles.
Skin and body protection	:	Wear suitable protective equipment.
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	:	flakes
Particle size :		< 14.7 µm Method : Laser diffraction with dispersion in dry air. < 61.4 µm Method : Laser diffraction with dispersion in dry air.

		Median value < 203 µm Method : Laser diffraction with dispersion in dry air.
Colour	:	light yellow
Odour	:	not specified
Odour Threshold	:	cannot be determined
pH	:	approx. 7 (20 ℃)saturated aqueous solution
Drop point	:	approx. 99 ℃ Method: DIN/ISO 2176
Boiling point	:	Decomposes below the boiling point.
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	The product is not flammable. Method: 92/69/EC (L383) A.10 * flammability (solids)
Upper explosion limit	:	not tested.
Lower explosion limit	:	not tested.
Combustion number :		BZ1 Does not catch fire Method : VDI 2263, ESCIS, Vol. 1
Vapour pressure	:	0.079 mPa (25 ℃) Method: 92/69/EEC, A.4. GLP: yes
Relative vapour density	:	Not applicable
Relative density	:	1.02 (20 ℃) Method: ISO 1183
Density	:	approx. 1.02 g/cm3 (23 ℃) Method: ISO 1183
Solubility(ies)		
Water solubility	:	5 mg/l (20 ℃) pH: 7 Method: OECD Test Guideline 105

Solubility in other solvents	:	not tested.
Partition coefficient: n-octanol/water	:	log Pow: approx. 2 (20 °C) pH: 7 Method: other (calculated)
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	> 160 °C Method: DSC
Viscosity		
Viscosity, dynamic	:	approx. 300 mPa.s (120 °C) Method: DIN 53019
Viscosity, kinematic	:	Not applicable
Explosive properties	:	There are no chemical groups associated with explosive properties present in the molecule.
Oxidizing properties	:	The substance or mixture is not classified as oxidizing. There are no chemical groups associated with oxidising properties present in the molecule. not oxidizing
Surface tension	:	Based on chemical structure, no surface activity is expected or can be predicted.
Sublimation point	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Stable
Conditions to avoid	:	Keep away from heat. Keep away from flames and sparks.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	When handled and stored appropriately, no dangerous decomposition products are known

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	LD50 (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 401
GLP: yes
Remarks: By analogy with a product of similar composition

Acute inhalation toxicity : Remarks: not required

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Remarks: By analogy with a product of similar composition

Skin corrosion/irritation

Product:

Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes
Remarks: By analogy with a product of similar composition

Serious eye damage/eye irritation

Product:

Species: rabbit eye
Result: No eye irritation
Exposure time: 24 h
Method: OECD Test Guideline 405
GLP: yes
Remarks: By analogy with a product of similar composition

Respiratory or skin sensitisation

Product:

Test Type: Mouse local lymphnode assay
Exposure routes: Dermal
Species: Mouse
Method: OECD Test Guideline 429
Result: non-sensitizing
GLP: yes
Remarks: By analogy with a product of similar composition

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Test Type: Ames test
Species: Salmonella typhimurium
Concentration: 4 - 10000 µg/plate
Metabolic activation: with and without
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Remarks: By analogy with a product of similar composition

: Test Type: Ames test
Species: Escherichia coli
Concentration: 4 - 10000 µg/plate
Metabolic activation: with and without
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: By analogy with a product of similar composition

: Test Type: Chromosome Aberration Test
Species: V79 cells (embryonic lung fibroblasts) of the Chinese hamster
Concentration: 0,3 - 35 µg/ml
Metabolic activation: with and without
Method: OECD Test Guideline 473
Result: negative
GLP: yes
Remarks: By analogy with a product of similar composition

: Test Type: HGPRT assay
Species: V79 cells (embryonic lung fibroblasts) of the Chinese hamster
Concentration: 4,4 - 560 µf/ml
Metabolic activation: with and without
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Remarks: By analogy with a product of similar composition

Germ cell mutagenicity - Assessment : It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests.

Carcinogenicity

Product:

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

IARC Not listed

OSHA Not listed

NTP Not listed

Reproductive toxicity

Product:

Effects on fertility : Test Type: One generation study
Species: Rat
Sex: male and female
Dose: 10 - 100 - 1000 mg/kg

Frequency of Treatment: once daily
Sprague-Dawley
49 - 52 d
14 d
Group: yes
NOAEL: 1,000 mg/kg,
F1: 1,000 mg/kg,
Method: OECD 421
GLP: yes
Remarks: By analogy with a product of similar composition

Effects on foetal development : Species: Rat
Application Route: oral (gavage)
Exposure time: females day 6-19 post coitum
Dose: 50 - 250 - 1000 mg/kg
Group: yes
1,000 mg/kg
1,000 mg/kg
Number of exposures: once daily
Method: OECD Test Guideline 414
GLP: yes
Remarks: By analogy with a product of similar composition

Reproductive toxicity - Assessment : No teratogenic effects to be expected.

No reproductive toxicity to be expected.

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
NOAEL: 1,000 mg/kg
Application Route: oral (gavage)
Exposure time: >70 d
Number of exposures: once daily
Dose: 10 - 100 -1 000 mg/kg
Group: yes
Method: OECD Test Guideline 422
GLP: yes
Remarks: By analogy with a product of similar composition

Application Route: Inhalation
Method: Repeated dose toxicity
Remarks: The study is not necessary from a scientific perspective.

Application Route: Dermal
Method: Repeated dose toxicity
Remarks: The study is not necessary from a scientific perspective.

Aspiration toxicity

Product:

No aspiration toxicity classification

Experience with human exposure

Product:

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

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 10,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
GLP: yes
Remarks: The product was tested above its maximum solubility.

LC0 (Danio rerio (zebra fish)): 10,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test Type: Immobilization
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae : EL50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 100 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

Toxicity to fish (Chronic : Remarks: not required

toxicity)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 100 mg/l Exposure time: 21 d Method: OECD Test Guideline 211 GLP: yes
Toxicity to bacteria	:	EC50 (activated sludge): > 10,000 mg/l End point: Bacteria toxicity (respiration inhibition) Exposure time: 3 h Test Type: aquatic Method: OECD Test Guideline 209 GLP: yes
Toxicity to soil dwelling organisms	:	Test Type: artificial soil NOEC (Eisenia fetida (earthworms)): 1,000 mg/kg Exposure time: 14 d Method: OECD 207. 1984. ARTIFICIAL SOIL TEST GLP: yes Test Type: artificial soil NOEC (Eisenia fetida (earthworms)): 1,000 mg/kg Exposure time: 56 d Method: OECD Test Guideline 222 GLP: yes
Plant toxicity	:	Remarks: The study is not necessary from a scientific perspective.
Sediment toxicity	:	Remarks: not tested.
Toxicity to terrestrial organisms	:	

Persistence and degradability

Product:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge, domestic Result: Partially biodegradable. Biodegradation: approx. 22 % Exposure time: 28 d Method: OECD Test Guideline 301D GLP: yes
Physico-chemical removability	:	Remarks: The product is not readily biodegradable according to OECD criteria but is inherently biodegradable.
Stability in water	:	Remarks: Not applicable

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Low potential for bioaccumulation (log Pow < 3).

Mobility in soil

Product:

Distribution among environmental compartments : Remarks: Not expected to adsorb on soil.

Other adverse effects

Product:

Environmental fate and pathways : Remarks: not available

Results of PBT and vPvB assessment : The substance is not identified as a PBT or as a vPvB substance.

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act : No -- Not as sold.

Waste from residues : Dispose of spilled or waste product, contaminated soil and other contaminated materials in licensed landfill or treatment facility in accordance with all local, state, and federal regulations.

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

SECTION 14. TRANSPORT INFORMATION

DOT	not restricted
IATA	not restricted
IMDG	not restricted

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.

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

Clean Water Act

Contains no known priority pollutants at concentrations greater than 0.1%.

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

TSCA : On TSCA Inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

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

Revision Date : 06/19/2015

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.