SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 4000 Monroe Road Charlotte, NC, 28205 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Stewardship, +1-704-331-7710 **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name: **LICOWAX KPS FL**
Material number: 105202

Chemical family: Montanic acid ester,a wax acid mixture of approx C24-C34)

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Combustible dust

GHS label elements

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

Substance / Mixture : Substance

Substance name : Montanic acid ester,a wax acid mixture of approx C24-C34)

CAS-No. : Not Assigned

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Product	Not Assigned	100

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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	:	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	:	Foam Water spray jet Dry powder
Unsuitable extinguishing media	:	High volume water jet Carbon dioxide (CO2)
Specific hazards during firefighting	:	None known. Electrical grounding of equipment is required to prevent possible dust explosion. Emits toxic fumes under fire conditions.
Further information	:	Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and full protective clothing.
Special protective equipment	:	Wear personal protective equipment.

for firefighters	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.
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. Use personal protective equipment. Avoid breathing dust. Avoid contact with skin and eyes. Wash thoroughly after handling. Store in a dry place. Keep away from heat. Store in original container. Keep container tightly closed.
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

Engineering measures	:	Local ventilation recommended - mechanical ventilation may be used.

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 : Observe the usual precautions for handling chemicals.

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

Colour : yellow

Odour : not specified

Odour Threshold : cannot be determined

pH : approx. 7 (20 °C)
saturated aqueous solution

Melting point : approx. 78 °C
Method: DSC

Boiling point : Decomposes below the boiling point.

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : The product is not flammable.
GLP: yes

Self-ignition : Method: Expert judgement
Not relevant

Burning number : 2
Method: VDI 2263, ESCIS, Vol. 1
GLP: no
Short flaring up without spreading

Upper explosion limit / upper flammability limit : not tested.

Lower explosion limit / Lower flammability limit : not tested.

Vapour pressure	:	0.012 mPa (25 °C) Method: 92/69/EEC, A.4. GLP: yes
Relative vapour density	:	Not applicable
Relative density	:	1.013 (23 °C) Method: ISO 1183
Density	:	1.013 g/cm3 (20 °C) Method: ISO 1183
Solubility(ies)		
Water solubility	:	30 mg/l (20 °C) pH: 7 Method: OECD Test Guideline 105
Solubility in other solvents	:	not tested.
Partition coefficient: n-octanol/water	:	log Pow: < 2 (20 °C) pH: 5.6 - 5.9 Method: Other
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	approx. 203 °C Heating rate: 10 K/min Method: DSC
Viscosity		
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	approx. 29 mm2/s (100 °C) Method: DIN 51562
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
Dust deflagration index (Kst)	:	57 m.b_/s
Dust explosion class	:	St1
Minimum ignition energy	:	> 100 mJ Method: DIN EN 13821

Particle size : 245 µm
Method: ISO 13320-1

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 : Potential dust explosion hazard.
The substance or mixture does not emit flammable gases in contact with water.
Not corrosive to metals

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
No significant adverse effects were reported

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
Result: No eye irritation
Exposure time: 72 h
Method: OECD Test Guideline 405
GLP: yes
Remarks: By analogy with a product of similar composition

Respiratory or skin sensitisation

Product:

Test Type: Local lymph node assay (LLNA)
Exposure routes: Dermal
Species: Mouse
Method: OECD Test Guideline 429
Result: Not a skin sensitizer.
GLP: yes
Remarks: By analogy with a product of similar composition

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Concentration: 4 - 10000 µg/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: By analogy with a product of similar composition

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Concentration: 1,2 - 300 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes
Remarks: By analogy with a product of similar composition

Test Type: In vitro cytogenicity study in mammalian cells
Test system: Chinese hamster lung cells
Concentration: 3 - 1000 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

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

Carcinogenicity

Product:

Species: Rat, (male and female)
Application Route: oral (gavage)
Exposure time: 2 a
Dose: 0, 50, 500 mg/kg bw/day
Group: yes
Frequency of Treatment: daily
500 mg/kg bw/day
Method: OECD Test Guideline 451
GLP: no data available
Remarks: By analogy with a product of similar composition

Species: Rat, (male and female)
Application Route: oral (gavage)
Exposure time: 2 a
Dose: 0, 50, 500, 1500 mg/kg
Group: yes
Frequency of Treatment: daily for 5 days/week
1,500 mg/kg bw/day
Method: OECD Test Guideline 451
GLP: yes
Remarks: By analogy with a product of similar composition

Carcinogenicity - Assessment	:	No evidence of carcinogenicity in animal studies.
IARC		Not listed
OSHA		Not listed
NTP		Not listed

Reproductive toxicity

Product:

Effects on fertility	:	Test Type: One generation study Species: Rat, male and female Strain: Sprague-Dawley Application Route: oral (gavage) Dose: 0, 10, 100, 1000 mg/kg Frequency of Treatment: 1 daily General Toxicity - Parent: NOAEL: 1,000 mg/kg body weight General Toxicity F1: NOAEL: 1,000 mg/kg body weight Method: OECD Test Guideline 421 GLP: yes Remarks: By analogy with a product of similar composition
Effects on foetal development	:	Test Type: Pre-natal Species: Rat, female Strain: Sprague-Dawley Application Route: oral (gavage)

Dose: 0, 50, 250, 1000 mg/kg
Duration of Single Treatment: 13 d
Frequency of Treatment: 1 daily
General Toxicity Maternal: NOAEL: 1,000 mg/kg body weight
Teratogenicity: NOAEL: 1,000 mg/kg body weight
Developmental Toxicity: NOAEL: 1,000 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes
Remarks: By analogy with a product of similar composition

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
NOAEL: 1000 mg/kg bw/day
Application Route: oral (gavage)
Exposure time: >70 d
Number of exposures: daily
Dose: 0, 10, 100, 1000 mg/kg
Group: yes
Method: OECD Test Guideline 422
GLP: yes
Remarks: By analogy with a product of similar composition

Aspiration toxicity

Product:

No aspiration toxicity classification

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 g/l End point: mortality Exposure time: 96 h Test Type: static test Analytical monitoring: no Method: OECD Test Guideline 203 GLP: yes Remarks: By analogy with a product of similar composition The details of the toxic effect relate to the nominal concentration. NOEC (Danio rerio (zebra fish)): 10 g/l End point: mortality Exposure time: 96 h Test Type: static test Analytical monitoring: no Method: OECD Test Guideline 203 GLP: yes Remarks: By analogy with a product of similar composition The details of the toxic effect relate to the nominal concentration.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 10 g/l End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: no Method: OECD Test Guideline 202 GLP: yes Remarks: By analogy with a product of similar composition The details of the toxic effect relate to the nominal concentration. EC10 (Daphnia magna (Water flea)): > 10.1 - 100 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: no Method: OECD Test Guideline 202 GLP: yes Remarks: By analogy with a product of similar composition The details of the toxic effect relate to the nominal concentration.
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l

End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

NOEC (Desmodesmus subspicatus (green algae)): >= 100 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to fish (Chronic toxicity) : Remarks: not required

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): approx. 100 mg/l
End point: Reproduction rate
Exposure time: 21 d
Test Type: semi-static test
Analytical monitoring: no
Method: OECD Test Guideline 211
GLP: yes
Remarks: By analogy with a product of similar composition The details of the toxic effect relate to the nominal concentration.

NOEC (Daphnia magna (Water flea)): approx. >= 100 mg/l
End point: Reproduction rate
Exposure time: 21 d
Test Type: semi-static test
Analytical monitoring: no
Method: OECD Test Guideline 211
GLP: yes
Remarks: By analogy with a product of similar composition The details of the toxic effect relate to the nominal concentration.

Toxicity to microorganisms : NOEC (activated sludge): 1,000 mg/l
End point: Bacteria toxicity (respiration inhibition)
Exposure time: 3 h
Test Type: aquatic
Analytical monitoring: no
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 End point: mortality Method: OECD Test Guideline 207 GLP: yes Remarks: By analogy with a product of similar composition Test Type: artificial soil LOEC (Eisenia fetida (earthworms)): > 1,000 mg/kg Exposure time: 14 d End point: mortality Method: OECD Test Guideline 207 GLP: yes Remarks: By analogy with a product of similar composition

Persistence and degradability

Product:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge, domestic, non-adapted Concentration: 4.46 mg/l Result: Inherently biodegradable. Biodegradation: 59.7 % (Biochemical Oxygen Demand (BOD)) Exposure time: 28 d Method: OECD Test Guideline 301D GLP: yes Remarks: By analogy with a product of similar composition
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

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 Code	:	none
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 302 Extremely Hazardous Substances Threshold Planning Quantity

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

SARA 311/312 Hazards	:	Combustible dust
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

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

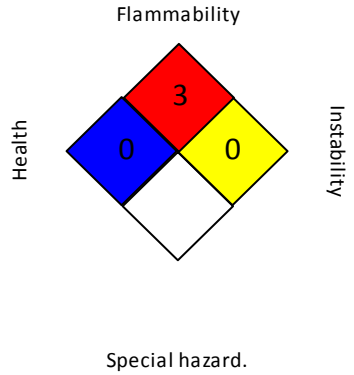
The components of this product are reported in the following inventories:

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

SECTION 16. OTHER INFORMATION

Further information

NFPA:



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 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

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

Revision Date : 11/13/2018

US / EN