SECTION 1. IDENTIFICATION

Identification of the company:	Clariant Corporation 500 East Morehead Street Charlotte, NC, 28202 Telephone No.: +1 704 331 7000 **Information of the substance/preparation:** Product Stewardship, +1-704-331-7710 e-mail: SDS.NORAM@clariant.com **Emergency tel. number:** +1 800-424-9300 CHEMTREC

Trade name:	**LICOWAX C P**
Material number:	107076
CAS number:	110-30-5
Primary product use:	Industrial use
Chemical family:	Bisstearoylethylenediamide

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (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

Dust can form an explosive mixture in air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Substance
Substance name	:	Bisstearoylethylenediamide
CAS-No.	:	110-30-5

Components

Chemical name	CAS-No.	Concentration (% w/w)
N,N'-Ethylenedi(stearamide)	110-30-5	>= 90 - <= 100

Actual concentration is withheld as a trade secret

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 with soap and water. Contact physician if irritation or other symptoms occur. If hot wax strikes skin, drench or immerse the area in water to assist cooling. Do not remove wax from a burn after it cools. Consult a physician.

In case of eye contact : Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or 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).
The possible risks known are those derived from the labelling (see section 2).

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 : Wear suitable protective equipment.

Exercise caution when fighting any chemical fire. Use NIOSH approved self-contained breathing apparatus and protective clothing. Cool containers with water to prevent rupture due to

pressure buildup.

Special protective equipment for firefighters	:	Impervious clothing Protective helmets 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. 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 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".

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
N,N'-Ethylenedi(stearamide)	110-30-5	TWA (Inhalable particulate matter)	10 mg/m3	ACGIH
		TWA (Respirable particulate matter)	3 mg/m3	ACGIH

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

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 : powder

Colour : off-white

Odour : not specified

pH : not tested.

Drop point : approx. 288 °F / 142 °C
Method: DIN/ISO 2176
GLP: no

Melting point 291 °F / 144 °C

		Method: DSC GLP: no
Boiling point	:	Decomposes below the boiling point.
Flash point	:	Not applicable
Flammability (solid, gas)	:	not determined
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.
Burning number	:	not tested.
Upper explosion limit / upper flammability limit	:	not tested.
Lower explosion limit / Lower flammability limit	:	not tested.
Vapour pressure	:	0.000023 Pa (68 °F / 20 °C) Method: OECD Test Guideline 104 GLP: yes 0.000042 Pa (77 °F / 25 °C) Method: OECD Test Guideline 104 GLP: yes 0.00062 Pa (122 °F / 50 °C) Method: OECD Test Guideline 104 GLP: yes
Density	:	approx. 1 g/cm3 (73 °F / 23 °C) Method: ISO 1183
Solubility(ies)		
Water solubility	:	insoluble (68 °F / 20 °C)
Solubility in other solvents	:	not tested.
Partition coefficient: n-octanol/water	:	not determined
Decomposition temperature	:	> 392 °F / > 200 °C Method: DTA No decomposition if used as directed.
Viscosity		
Viscosity, dynamic	:	approx. 10 mPa.s (302 °F / 150 °C) Method: DIN 53019

Viscosity, kinematic	:	Not applicable
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.
Self-heating substances	:	no data available
Surface tension	:	not tested.
Dust deflagration index (Kst)	:	63 m.b_/s
Dust explosion class	:	St1
Minimum ignition energy	:	100 - 300 mJ (68 °F / 20 °C) Method: Mike 3 apparatus with inductive electrical resistance 100 - 300 mJ (140 °F / 60 °C) Method: Mike 3 apparatus with inductive electrical resistance
Particle size	:	218 µm Method: ISO 13320-1 Median value

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if used as directed.
Chemical stability	:	Stable
Possibility of hazardous reactions	:	Dust can form an explosive mixture in air. Stable
Conditions to avoid	:	no data available
Incompatible materials	:	not known
Hazardous decomposition products	:	Possible in traces: Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Skin contact
Inhalation

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 Assessment: The substance or mixture has no acute dermal toxicity

Components:

N,N'-Ethylenedi(stearamide):

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 Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Product:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Components:

N,N'-Ethylenedi(stearamide):

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Serious eye damage/eye irritation

Product:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405

Components:

N,N'-Ethylenedi(stearamide):

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405

Respiratory or skin sensitisation

Product:

Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Not a skin sensitizer.

Components:

N,N'-Ethylenedi(stearamide):

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

Components:

N,N'-Ethylenedi(stearamide):

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.

Components:

N,N'-Ethylenedi(stearamide):

Carcinogenicity - Assessment : No information available.

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.

Reproductive toxicity

Product:

Effects on foetal development : Test Type: Pre-natal
Species: Rat
Strain: Sprague-Dawley
Application Route: oral (gavage)
General Toxicity Maternal: NOAEL: >= 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.

Components:

N,N'-Ethylenedi(stearamide):

Effects on foetal development : Test Type: Pre-natal
Species: Rat
Strain: Sprague-Dawley
Application Route: oral (gavage)
General Toxicity Maternal: NOAEL: >= 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.

Components:

N,N'-Ethylenedi(stearamide):

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.

Components:

N,N'-Ethylenedi(stearamide):

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

Components:

N,N'-Ethylenedi(stearamide):

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

Components:

N,N'-Ethylenedi(stearamide):

no data available

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 (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/aquatic plants	:	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 (Daphnia magna (Water flea)): 0.0056 mg/l Exposure time: 21 d 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 (Eisenia fetida (earthworms)): >= 1,000 mg/kg Exposure time: 56 d Method: OECD Test Guideline 222
Sediment toxicity	:	NOEC: >= 1000 mg/kg dry weight (d.w.) Test Type: static test Sediment: Artificial sediment Exposure duration: 28 d Method: OECD Test Guideline 218

Components:

N,N'-Ethylenedi(stearamide):

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/aquatic plants	:	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 (Daphnia magna (Water flea)): 0.0056 mg/l Exposure time: 21 d 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 (Eisenia fetida (earthworms)): >= 1,000 mg/kg Exposure time: 56 d Method: OECD Test Guideline 222

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

Persistence and degradability

Product:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge Result: Not readily biodegradable. Biodegradation: 5.5 % (Carbon dioxide (CO2)) Exposure time: 28 d Method: OECD Test Guideline 301B

Components:

N,N'-Ethylenedi(stearamide):

Biodegradability	:	aerobic Inoculum: activated sludge Carbon dioxide (CO2) Result: Not readily biodegradable. Biodegradation: 5.5 % Exposure time: 28 d Method: OECD Test Guideline 301B

Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: Bioaccumulation is unlikely.

Components:

N,N'-Ethylenedi(stearamide):

Bioaccumulation	:	Remarks: Bioaccumulation is unlikely.
Partition coefficient: n-octanol/water	:	Remarks: Not applicable

Mobility in soil

Product:

Distribution among environmental compartments	:	log Koc: 8.6 - 8.91 Method: calculated

Components:

N,N'-Ethylenedi(stearamide):

Distribution among environmental compartments	:	log Koc: 8.6 - 8.91 Method: calculated

Other adverse effects

Product:

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

Components:

N,N'-Ethylenedi(stearamide):

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

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

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

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
This product does not contain any priority pollutants related to the U.S. Clean Water Act

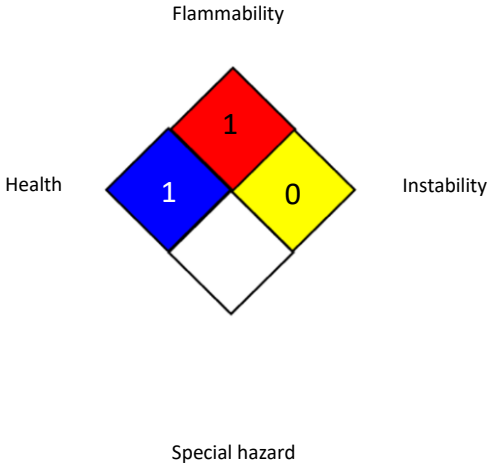
The components of this product are reported in the following inventories:

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

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH / TWA : 8-hour, time-weighted average

AIIC - Australian Inventory of Industrial Chemicals; 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; TECI - Thailand Existing Chemicals 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 : 08/25/2022

US / EN