Substance key: SXR021343	Revision Date: 07/24/2019
Version : 5 - 1 / USA	Date of printing :02/18/2021

SECTION 1. IDENTIFICATION

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

Trade name:	**CERIDUST 3910**
Material number:	106945
CAS number:	110-30-5
Primary product use:	Techno-chemical industry.
Chemical family:	N,N'-Ethylenebisstearamide

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

Dust can form an explosive mixture in air.
Avoid dust formation and electrostatic charging.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Substance name : Octadecanamide, N,N'-1,2-ethanediylbis-

CAS-No. : 110-30-5

Components

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

Specific hazards during firefighting : Take measures to prevent the build up of electrostatic charge.
Dust can form an explosive mixture in air.

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	:	Self-contained breathing apparatus Impervious clothing Protective helmets Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Wear suitable protective equipment. Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing. Wearing appropriate personal protective equipment, contain spill, collect onto inert absorbent, and place in 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

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Keep away sources of ignition. Take measures to prevent the build up of electrostatic charge. Observe the general rules of industrial fire protection The product is a fine dust. Consequently, the product and/or its packaging material can become electrostatically charged during emptying of the package, or processing of the product. Therefore, when handling such materials in areas where the existance of an explosive atmosphere cannot be completely excluded, it is necessary to take strict precautions to prevent explosions caused by electrostatic charging or discharging. This requirement applies also to the use or processing of products which are themselves not flammable. The regulations and references of the German BG Guideline 132 on the avoidance of danger of ignition due to electrostatic charges, and those of national regulations of other countries must be considered. The actual measures taken should depend on the processing operations, the conditions of the surrounding area, and the accepted safety procedures of the

plant handling the product.
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.

Conditions for safe storage : Keep only in the original container.
Keep container tightly closed.

Further information on storage conditions : Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep away sources of ignition.

Materials to avoid : No conditions to be specially mentioned.

Further information on storage stability : no data available

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 fraction)	10 mg/m3	ACGIH
		TWA (Respirable fraction)	3 mg/m3	ACGIH

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 : Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.

Hand protection
Remarks : Nitrile rubber gloves. PVC Neoprene gloves

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	fine powder
Colour	:	white
Odour Threshold	:	not available
pH	:	Not applicable
Drop point	:	approx. 288 °F / 142 °C Method: DIN/ISO 2176
Melting point		291 °F / 144 °C Method: DSC
Boiling point	:	Decomposes below the boiling point.
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	does not ignite
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	:	1 Does not catch fire
Upper explosion limit / upper flammability limit	:	not available
Lower explosion limit / Lower flammability limit	:	20,000 mg/m3
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

Relative vapour density	:	Not applicable
Density	:	approx. 1 g/cm3 (73 °F / 23 °C) Method: ISO 1183
Solubility(ies)		
Water solubility	:	insoluble (68 °F / 20 °C)
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	not tested.
Decomposition temperature	:	Heating rate: 10 K/min Method: DTA No decomposition up to 400 °C.
Viscosity		
Viscosity, dynamic	:	approx. 10 mPa.s (302 °F / 150 °C) Method: DIN 53019
Viscosity, kinematic	:	Not applicable
Flow time	:	Not applicable
Oxidizing properties	:	not available
Impact sensitivity	:	Not impact sensitive. Method: Other guidelines
Dust deflagration index (Kst)	:	328 m.b_/s
Dust explosion class	:	ST3 Capable of dust explosion
Minimum ignition energy	:	< 1 mJ Method: Mike 3 apparatus with inductive electrical resistance < 1 mJ Method: Mike 3 apparatus without inductive electrical resistance
Particle size	:	approximately 6.5 µm Method: Laser diffraction with dispersion in dry air. Median value

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if used as directed.
Chemical stability	:	Stable

Possibility of hazardous reactions	:	Risk of dust explosion. The substance or mixture does not emit flammable gases in contact with water. Not corrosive to metals Stable
Conditions to avoid	:	Keep away from heat and sources of ignition.
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	:	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

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

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 : Remarks: no data available

toxicity)

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	:	This product, if discarded as sold, is not a Federal RCRA hazardous waste.
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

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

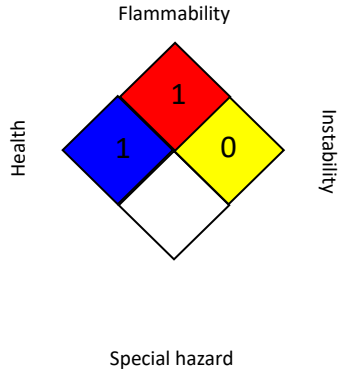
The components of this product are reported in the following inventories:

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

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

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 : 07/24/2019

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.

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