SAFETY DATA SHEET

CERIDUST 3910

Substance key: SXR021343  Revision Date: 07/09/2016
Version : 4 - 1 / USA  Date of printing :11/06/2017

SECTION 1. IDENTIFICATION

Identification of the company: Clariant Plastics & Coating USA Inc.
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: CERIDUST 3910
Material number: 106945
CAS number: 110-30-5
Primary product use: Additive
Chemical family: N,N'-Ethylenebisstearamide

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
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 : N,N'-Ethylenebisstearamide
CAS-No. : 110-30-5
Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (w/w%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N,N’-Ethylenedistearamide</td>
<td>110-30-5</td>
<td>100</td>
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</table>

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). No additional symptoms are known.

Notes to physician: None known.

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: 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
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Wear suitable protective equipment. 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 existence 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.

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.

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
No level has been established by OSHA, NIOSH, ACGIH.

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.

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : fine powder
Colour : white
Odour : not specified
Odour Threshold : not tested.

pH : Not applicable

Drop point : approx. 142 °C
   Method: DIN/ISO 2176

Melting point : 144 °C
   Method: DSC

Boiling point : Decomposes below the boiling point.

Flash point : Not applicable

Evaporation rate : not determined

Flammability (solid, gas) : does not ignite

Upper explosion limit : not determined

Lower explosion limit : 20,000 mg/m3

Combustion number : BZ1  Does not catch fire
Vapour pressure: 0.000023 Pa (20 °C)
   Method: OECD Test Guideline 104
   GLP: yes

0.000042 Pa (25 °C)
   Method: OECD Test Guideline 104
   GLP: yes

0.00062 Pa (50 °C)
   Method: OECD Test Guideline 104
   GLP: yes

Relative vapour density: not determined

Density: approx. 1 g/cm³ (23 °C)
   Method: ISO 1183

Solubility(ies):
   Water solubility: insoluble (20 °C)
   Solubility in other solvents: not tested.

Partition coefficient: n-octanol/water: not tested.

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 (150 °C)
   Method: DIN 53019

   Viscosity, kinematic: Not applicable

Explosive properties: Not explosive
   Method: Expert judgement
   GLP: no

Oxidizing properties: The substance or mixture is not classified as oxidizing.
   Method: Expert judgement
   GLP: no
   The product does not contain organic peroxide-groups which result from either the manufacturing process or from added ingredients.

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 dangerous reaction known under conditions of normal use.
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
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: LD50 Oral (Mouse): > 20,000 mg/kg
   GLP: no
   Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity: Remarks: not tested.
Acute dermal toxicity: Remarks: not tested.
Skin corrosion/irritation

**Product:**
Species: Rabbit
Exposure time: 24 h
Assessment: non-irritant
Method: Patch Test 24 Hrs.
Result: No skin irritation
GLP: no
Remarks: According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Serious eye damage/eye irritation

**Product:**
Species: rabbit eye
Result: slight irritant effect - does not require labelling
Assessment: No eye irritation
GLP: no
Remarks: According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

Respiratory or skin sensitisation

**Product:**
Remarks: not tested.

Germ cell mutagenicity

**Product:**
Genotoxicity in vitro : Remarks: not tested.
Germ cell mutagenicity - Assessment : No information available.

Carcinogenicity

**Product:**
Carcinogenicity - Assessment : No information available.
IARC : Not listed
OSHA : Not listed
NTP : Not listed

Reproductive toxicity

**Product:**
Reproductive toxicity - : No information available.
Assessment

**STOT - single exposure**

**Product:**
Remarks: no data available

**STOT - repeated exposure**

**Product:**
Remarks: no data available

**Repeated dose toxicity**

**Product:**
Remarks: not tested.

**Aspiration toxicity**

**Product:**
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 (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
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae:
Remarks: not tested.

Toxicity to bacteria: EC50 (activated sludge): > 1,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Persistence and degradability

**Product:**

Biodegradability : Remarks: not tested.

Bioaccumulative potential

**Product:**

Bioaccumulation : Remarks: not available

Mobility in soil
no data available

Other adverse effects

**Product:**

Environmental fate and pathways : Remarks: no data available

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

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods


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.
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Substance key: SXR021343
Revision Date: 07/09/2016
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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 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

SECTION 16. OTHER INFORMATION

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; IECS - 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

Further information

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

Revision Date : 07/09/2016

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