



SAFETY DATA SHEET

Product name: Green Linear Low
Density
Revision date: 8/11/2021
Initial preparation date: 8/4/2021

Compiled according to GB/T 16483, GB/T 17519
SDS Nr: P2021072730
Version: 1.0

SECTION 1 Chemical product and company identification

Product name (Chinese Name) : 绿色线性低密度
Product name (English name) : Green Linear Low Density
Product code : SLL118, SLL118-21, SLL218, SLL218-21, SLL318, SLL5405S, STLL118-21
Name of Supplier : Braskem S/A
Address : Brazil Bahia/BA Rua Eteno 1561 - Pólo Petroquímico de Camaçari, BA, Brasil
Zip code : 42810-000
Tel. : +55 (71) 3413-3600
Email : productsafety@braskem.com
Emergency number : +(86) 4001-204937
Recommended use : For professional use only
Polymer preparations and compounds

SECTION 2 Hazards identification

Emergency overview

White to off-white granular solid. Non flammable.

GHS classification

Not classified

Label elements

Not applicable

Physical and chemical hazards

No additional information available

Health hazards

Symptoms/effects after eye contact : Dusts are mechanical irritants, Dust or fume may cause eye irritation, Effects may include discomfort or pain and redness

Symptoms/effects after ingestion : Choking hazard

Symptoms/effects after inhalation : Fumes are irritating to the respiratory system, Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure

Symptoms/effects after skin contact : Dust from this product may cause skin irritation, The melted product adheres to the skin and causes burns

Environmental hazards

No additional information available

Other hazards

Spills of this product present a serious slipping hazard

Electrostatic charges may be generated during handling

Dust could be formed as a result of granule degradation by impact or by abrasion during handling, grinding, or conveying operations

Dust from this product may cause respiratory irritation

SECTION 3 Composition/information on ingredients

Product form : Mixture.

Name	CAS-No.	Concentration (%)
1-Butene, polymer with ethene	25087-34-7	< 100

SECTION 4 First aid measures**Emergency**

- First-aid measures general : Never give anything by mouth to an unconscious person.
If you feel unwell, seek medical advice (show the label where possible)
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
Allow the victim to rest
- First-aid measures after skin contact : After contact with the molten product, cool rapidly with cold water.
Do not attempt to remove the molten material from the skin.
Burns caused by molten material must be treated clinically.
Wash skin with plenty of water
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
Obtain medical attention if pain, blinking or redness persists.
Consult an eye specialist.
- First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious).
Obtain emergency medical attention.
Immediately call a POISON CENTER/doctor.

Do not induce vomiting without medical advice.
May cause gastrointestinal blockage. Do not give laxatives.
Call a poison center or a doctor if you feel unwell

Most Important Symptoms/Effects

Symptoms/effects after eye contact : Dusts are mechanical irritants
Dust or fume may cause eye irritation
Effects may include discomfort or pain and redness

Symptoms/effects after ingestion : Choking hazard

Symptoms/effects after inhalation : Fumes are irritating to the respiratory system
Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure

Symptoms/effects after skin contact : Dust from this product may cause skin irritation
The melted product adheres to the skin and causes burns

Personal Protection in First Aid and Measures

No additional information available

Notes for the doctor

Note to physician : : Treat symptomatically

SECTION 5 Fire fighting measures**Extinguishing media**

Suitable extinguishing media : Foam
Dry powder
Carbon dioxide
Water spray
Sand

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire

Special hazard

Fire hazard : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases

Hazardous decomposition products in case of fire : Toxic fumes may be released

Explosion hazard : Dust could be formed as a result of granule degradation by impact or by abrasion during handling, grinding, or conveying operations
Potential dust explosion hazard from airborne release

Advice for firefighters and protective measures

Firefighting instructions : Use water spray or fog for cooling exposed containers
Avoid creating or spreading dust
Knock down/dilute dust cloud with water spray

- Exercise caution when fighting any chemical fire
Prevent fire fighting water from entering the environment
Avoid direct water stream on molten material. Molten form explodes upon contact with water
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection
Do not attempt to take action without suitable protective equipment
Self-contained breathing apparatus
Complete protective clothing
- Other information : Avoid raising powdered materials into airborne dust
Dust may form flammable and explosive mixture with air

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

- General measures : Avoid creating or spreading dust
Provide adequate ventilation to minimize dust concentrations
Take precautionary measures against static discharge.
Avoid contact with skin, eyes and clothing
Spills of this product present a serious slipping hazard
Do not breathe fume, vapours, dust.

For non-emergency personnel

- Emergency procedures : Ventilate spillage area
Evacuate unnecessary personnel

For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment
Equip cleanup crew with proper protection
For further information refer to section 8: "Exposure controls/personal protection"

- Emergency procedures : Ventilate area

Environmental precautions

- : Avoid release to the environment
Prevent entry to sewers and public waters
Notify authorities if liquid enters sewers or public waters

Methods and Equipment for Containment and Cleaning up

- Methods for cleaning : Mechanically recover the product. Sweep or shovel spills into appropriate container for disposal. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Minimise

generation of dust. Take precautionary measures against static discharge. Use only non-sparking tools. Store away from other materials. Ensure all national/local regulations are observed. Comply with applicable regulations for solid waste disposal.

For containment : Sweep or shovel spills into appropriate container for disposal.

Prevention Measures for Secondary Accidents

Prevention Measures for Secondary Accidents : No additional information available

Other information : Dispose of materials or solid residues at an authorized site

SECTION 7 Handling and storage

Handling

Precautions for safe handling : Ensure good ventilation of the work station
Wear personal protective equipment
Warning: may form combustible (explosive) dust - air mixtures. Prevent dust accumulations to minimise explosion hazard
Obtain special instructions before use.
Provide good ventilation in process area to prevent formation of vapour
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharge.
Keep container closed when not in use
Avoid raising powdered materials into airborne dust
Avoid contact with skin, eyes and clothing
Do not breathe dust, fume.
Minimise dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres
Proper grounding procedures to avoid static electricity should be followed

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work
Handle in accordance with good industrial hygiene and safety practice
Do not eat, drink or smoke when using this product.
Always wash hands after handling the product

Additional hazards when processed : Handling this product may result in electrostatic accumulation. Use proper grounding procedures

Storage

- Storage conditions : Keep only in the original container in a cool well ventilated place
Keep container closed when not in use
Keep away from open flames, hot surfaces and sources of ignition
Store in a well-ventilated place.
Keep cool.
- Technical measures : Provide adequate ventilation to minimize dust concentrations
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure
Proper grounding procedures to avoid static electricity should be followed
Use only non-sparking tools.
- Material used in packaging/containers : No additional information available
- Incompatible materials : Strong acids. Strong oxidizing agents.

SECTION 8 Exposure controls / Personal protection equipment**Occupational Exposure Limits**

No additional information available

Biological limit values

No additional information available

Monitoring methods

No additional information available

- Appropriate engineering controls** : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure
Provide local exhaust or general room ventilation to minimize exposure to dust
Provide adequate ventilation to minimize dust concentrations
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks

Ensure good ventilation of the work station

Personal protective equipment

- Personal protective equipment : Avoid all unnecessary exposure
For certain operations, additional Personal Protection Equipment (PPE) may be required
- Environmental exposure controls : Avoid release to the environment.
- Other information : Do not eat, drink or smoke during use
- Hand protection : Wear protective gloves to help prevent mechanical injury. For thermal protection from molten material, wear gloves with insulation. Check the resistance to chemicals and heat when choosing protective gloves
- Eye protection : Safety glasses with side shields should be worn when handling pellets. During hot processing, wear tightly fitting goggles and/or face shield when the possibility for eye contact exists
Safety glasses
- Skin and body protection : Personal protective clothing should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling
When handling molten material, thermally-protective long sleeved clothing, boots and gloves should be worn
- Respiratory protection : Respirators may be required if respirable and total dust exposure limits are exceeded or irritation is experienced
Wear appropriate mask
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product
Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator

SECTION 9 Physical and chemical properties

- Physical state : Solid
- Appearance : Granular solid
- Colour : White to off-white
- Odour : No data available
- pH : No data available
- Melting point : No data available
- Freezing point : Not applicable

Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: 350 ° C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 ° C	: No data available
Relative density	: 0,913 - 0,925 g/cm ³
Density	: No data available
Solubility	: Soluble in:, Xylene.
Solubility in water	: Insoluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Explosive limits (vol %)	: Not applicable
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available
Radioactive	: No

SECTION 10 Stability and reactivity

Reactivity	: No dangerous reactions known under normal conditions of use
Chemical stability	: Stable under normal conditions of use
Possibility of hazardous reactions	: Hazardous polymerization will not occur
Conditions to avoid	: Overheating
Incompatible materials	: Strong acids Strong oxidizers
Hazardous decomposition products	: fume Carbon monoxide Carbon dioxide
Other properties	: No additional information available

SECTION 11 Toxicological information

Acute toxicity	
Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

Skin corrosion/irritation

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/irritation

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

Respiratory or skin sensitisation

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

SECTION 12 Ecological information

Ecotoxicity

Ecology - general : Material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

Hazardous to the aquatic environment, short-term : Not classified (Based on available data, the classification

(acute)

Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification)

No additional information available

Persistence and degradability

Green Linear Low Density	
Persistence and degradability	This water-insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected

Bioaccumulative potential

No additional information available

Mobility in soil

No additional information available

Other adverse effects

Classification procedure (Ozone) : No data available

Effect on the ozone layer : No additional information available

Other information : Avoid release to the environment.

SECTION 13 Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Additional information : Do not re-use empty containers, Do not dispose of waste into sewer, Do not remove as household garbage.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations
Ensure all national/local regulations are observed
Consult an expert on waste disposal or treatment
Return in the shipping container properly labeled with any valve outlet plugs or caps secured and valve protection cap in place to supplier for proper disposal

Ecology - waste materials : Avoid release to the environment.
Prevent contamination of soil, drains and surface waters

SECTION 14 Transport information

Overland transport (JT/T 617)	Transport by sea	Air transport
UN number		
Not regulated	Not regulated	Not regulated

Overland transport (JT/T 617)	Transport by sea	Air transport
UN proper shipping name		
Not regulated	Not regulated	Not regulated
Transport document description		
Not regulated	Not regulated	Not regulated
Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
Not regulated	Not regulated	Not regulated
Packing group		
Not regulated	Not regulated	Not regulated
Environmental hazards		
Not regulated	Not regulated	Not regulated

Special transport precautions

Overland transport (JT/T 617)

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15 Regulatory information

New Chemical Substance Environmental Management Registration Measures (MEE Order 12 of 2020)

Inventory of Existing : Contains listed substance(s)

Chemical Substances in China (IECSC) 1-Butene, polymer with ethene (CAS-No. 25087-34-7)

For regulatory issues and global inventory, contact: productsafety@braskem.com

SECTION 16 Other information

Other information : None

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