

SAFETY DATA SHEET: BD29 SCENIC SNOW KIT

Revision Date: 27/07/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Scenic Snowflakes

Number: BD29

Chemical characterization: Polyolefin

CAS-No.: 9002-88-4

Synonyms: Polyethylene, PE, Polyolefin

Use category: Modelling product

Company Address

Deluxe Materials Ltd
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United Kingdom

Company Telephone

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Emergency telephone number

+44 (0)1256 883 944 (Office hours only)

2. HAZARDS IDENTIFICATION

Emergency Overview

This safety data sheet has been prepared in accordance with EU Directives 67/548/EEC; on dangerous substances, and 1999/45/EC; on dangerous preparations.

Signal Word

CAUTION.

Hazards

Dust may form explosive mixtures with air. At process temperatures irritating fumes may be produced. Molten polymer may cause thermal burns.

Physical state

solid

Color

translucent to white

Odor

Faint, mild hydrocarbon odor.

Odor Threshold

No value available.

Potential health effects

Routes of exposure

Eye. Inhalation. Skin.

☒ *Polyethylene, Homopolymer 9002-88-4*

Hot material may cause thermal burns. At process temperatures, irritating fumes may cause soreness in the nose and throat; coughing may result. Mechanical irritation is possible.

☒ *Additives*

No known acute health effects.

Skin

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Skin

Molten polymer may cause thermal burns.

Inhalation

At process temperatures irritating fumes may be produced. Inhalation of process fumes and vapors may cause soreness in the nose and throat and coughing. "Nuisance dust" such as polymer dust typically exhibit no significant health effect when they are reasonably controlled. Exposure to high concentrations of dust may cause slight irritation by mechanical action.

Eyes

Mechanical irritation is possible.

Ingestion

Ingestion not a likely route of exposure.

Chronic effects

See component summary.

☒ *Polyethylene, Homopolymer 9002-88-4*

No known chronic health effects.

☒ *Additives*

No known chronic health effects.

Aggravated Medical Condition

No known conditions are aggravated by this material.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS-No.</u>	<u>EC-No.</u>	<u>Weight %</u>	<u>Risks</u>	<u>Symbol(s)</u>
Polyethylene, Homopolymer	9002-88-4	Monomers are EINECS listed	98.0 <= 100.0		
Additives	Mixture	Additives are EINECS or ELINCS listed	<= 2.0	None.	None.
Typical composition					

4. FIRST AID MEASURES

General advice

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. For specific information refer to the Emergency Overview in Section 2 of this MSDS.

Skin

If molten material contacts the skin, immediately flush with large amounts of water to cool the affected tissue and polymer. Do not attempt to peel polymer from skin.

Inhalation

If symptoms are experienced, move victim to fresh air.

Eyes

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Eyes

Flush eyes thoroughly with water for several minutes and seek medical attention if discomfort persists.

Ingestion

Adverse health effects due to ingestion are not anticipated.

Notes to physician

There is no specific antidote; treatment of overexposure should be directed at control of symptoms and the clinical condition of the patient. Treat burns or allergic reactions conventionally after decontamination.

5. FIRE-FIGHTING MEASURES

Flammable properties

Classification

Not Classified. Polymer will burn but does not easily ignite.

Flash point

Not applicable.

Autoignition temperature

343 °C (649.4 °F)

Lower explosion limit

Not applicable.

Upper explosion limit

Not applicable.

Extinguishing Media

Suitable extinguishing media

SMALL FIRE: Use dry chemical, CO₂, water spray or regular foam LARGE FIRES: Use large quantities of water spray.

Protective equipment and precautions for firefighters

Protective equipment and precautions for firefighters

Wear an approved positive pressure self-contained breathing apparatus and firefighter turnout gear.

Precautions for fire-fighting

Polyolefin dust particles in the atmosphere are combustible and may be explosive. Keep away from heat and sources of ignition.

Hazardous combustion products

Carbon monoxide, olefinic and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes and alcohols may be formed.

6. ACCIDENTAL RELEASE MEASURES

Spills and leaks

Potential dust explosion hazard. Avoid raising powdered materials into airborne dust. Avoid generating static charge. Use only non-sparking tools. Material creates dangerous slipping hazard on hard surfaces. All equipment used when handling this product must be grounded. Pick up and retain for recycle or disposal.

7. HANDLING AND STORAGE

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Storage

Keep container dry. Store away from excessive heat and away from strong oxidizing agents. Keep container closed to prevent contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Ventillate area to prevent accumulation of dust and fumes.

Personal protective equipment

Inhalation

If exposure can potentially exceed the exposure limit(s), respiratory protection recommended or approved by appropriate local, state or international agency must be used.

Skin

Wear heat protective gloves and clothing if there is a potential for contact with heated material. Wear suitable protective clothing.

Eyes

Dust service goggles should be worn to prevent mechanical injury or other irritation to eyes due to airborne particles which may result from handling this product. Safety glasses

Remarks

Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Take off contaminated clothing and wash before reuse. Material spilled on hard surface can be a serious slipping/falling hazard. Use care in walking on spilled material.

Occupational Exposure Limits

Component	Source	Type:	Value	Note
Polyethylene, Homopolymer	OEL (BG)	TWA	10.0 mg/m3	None.
	OEL (CZ)	TWA	Dust, 5.0 mg/m3	None.
	OEL (LV)	TWA	Dust, 5 mg/m3	None.
	OEL (RU)	MAC	10 mg/m3	None.
	OEL (SK)	TWA	Aerosol, 5.0 mg/m3 total aerosol,	None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: solid translucent, to, white

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Odor: Faint, mild hydrocarbon odor.

Odor Threshold: No value available.

pH: Not applicable.

Boiling point/boiling range: Not applicable.

Melting point/freezing point: 104 - 138 °C (219.2 - 280.4 °F)

Flash point: Not applicable.

Autoignition temperature: 343 °C (649.4 °F)

Flammability: Not Classified. Polymer will burn but does not easily ignite.

Lower explosion limit: Not applicable.

Upper explosion limit: Not applicable.

Explosive properties: Dust Explosion Class = ST-2 (Strong Explosion)

Oxidizing properties: No Data Available.

Vapor pressure: Not applicable.

Evaporation rate: Not applicable.

Relative density: 0.91 - 0.98 (water=1)

Relative vapor density: Not applicable.

Viscosity: Not applicable.

Water solubility: Insoluble.

Partition coefficient: n-octanol/water: Specific data not available.

Other physico-chemical properties: Maximum Explosion Pressure, P_{max} (barg) = 8.4 Deflagration Index, K_{st} = 237 bar x m/sec Dust Explosion Class = ST-2 (Strong Explosion) Minimum Ignition Energy of Dust Cloud, MIE (mJ) = 10-25

10. STABILITY AND REACTIVITY

Chemical stability

The product is stable.

Conditions to avoid

Avoid contact with strong oxidizers, excessive heat, sparks or open flame. Avoid creation of airborne dust and particulates from processing, conveying, or handling this material. Electrostatic charges may be generated as a result of flow or agitation.

Materials to avoid

Material may be softened by some hydrocarbons. Reacts with fluorine gas.

Hazardous decomposition products

Not expected to decompose under normal conditions.

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Hazardous polymerization

Not likely.

Reactions with Air and Water

Does not react with air, water or other common materials.

11. TOXICOLOGICAL INFORMATION

Product information

Product Summary

See component summary.

COMPONENT INFORMATION

Polyethylene, Homopolymer 9002-88-4

Acute effects

Inhalation

Rats inhaling polyethylene dust developed mild inflammatory changes in the lungs.

Ingestion

No adverse health effects were noted on the digestive system of test animals when fed up to 20% polyethylene.

Repeated dose toxicity

Subchronic, 50-90 day, feeding studies conducted on rats, dogs and swine showed no effects from dietary levels of 1-20% powdered and shredded polyethylene.

Reproductive effects

Not expected to occur.

Carcinogenicity

Not listed by IARC, NTP, OSHA or EPA.

Additives

Repeated dose toxicity

No known chronic health effects.

Carcinogenicity

Not listed by IARC, NTP, OSHA or EPA.

12. ECOLOGICAL INFORMATION

Product information

Ecotoxicity

See component summary.

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Environmental fate and pathways

See component summary.

COMPONENT INFORMATION

Polyethylene, Homopolymer 9002-88-4

Ecotoxicity

Ecotoxicity is expected to be minimal based on the low water solubility of polymers.

Environmental fate and pathways

This material is not volatile and insoluble in water.

Persistence and degradability

Biodegradation: This material is not expected to be readily biodegradable.

Bioaccumulation: This material is not expected to bioaccumulate.

Additives

Ecotoxicity

No Data Available.

Environmental fate and pathways

No Data Available.

13. DISPOSAL CONSIDERATIONS

Dispose of as hazardous waste in compliance with local and national regulations. Comply with federal, state, or local regulations for disposal. Recycle if possible.

14. TRANSPORT INFORMATION

Special Provisions

If you reformulate or further process this material, you should consider re-evaluation of the regulatory status of the components listed in the composition section of this sheet, based on final composition of your product.

Proper shipping name POLYETHYLENE, OTHER THAN LIQUID, not regulated

15. REGULATORY INFORMATION

Notification status

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All ingredients are on the following inventories or are exempted from listing

Country	Notification
Australia	AICS
Canada	DSL
China	IECS
European Union	EINECS
Japan	ENCS/ISHL
Korea	ECL
Philippines	PICCS
United States of America	TSCA

Contact product.safety@lyondellbasell.com for additional global inventory information.

16. OTHER INFORMATION

Material safety datasheet sections which have been updated:

Revised Section(s): 1 16 March 19 2012

List of relevant R-phrases.

None. - None.

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Numerical Data Presentation

The presentation of numerical data, such as that used for physical and chemical properties and toxicological values, is expressed using a comma (,) to separate digits into groups of three and a period (.) as the decimal marker. For example, 1,234.56 mg/kg = 1 234,56 mg/kg.

Language Translations

This document may be available in languages other than English.

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End of Material Safety Data Sheet