

SAFETY DATA SHEET: **BD29 ICY SPARKLES**

Revision Date: 30.6.2015

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name : ICY SPARKLES
Chemical Name. Soda lime glass

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Particles for Modelling

1.3. Details of the supplier of the safety data sheet

Supplier: Deluxe Materials Limited
Unit 13 Cufaude Business Park
Cufaude Lane
Bramley, Hampshire RG26 5DL
United Kingdom

1.4. Emergency telephone number 01256 883944 (office hours only)

SECTION 2: HAZARDS IDENTIFICATION COMPOSITION/INFORMATION ON INGREDIENTS

2.1. Classification of the substance or mixture : Not classified as dangerous for supply/ use.

Dust may cause irritation. Product is not hazardous, but any respirable dust generated by processing may cause health effect.

2.2. Label elements Not classified as hazardous.

Precautionary Statements

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	%W/W	CAS No.	EINECS No. REACH Registration	EC Classification and Risk Phrases
Glass oxide	; Glass 100	65997-17-3	2660460	Not applicable

3.2.

The Full Text for all R-Phrases and Hazard Statements is displayed in Section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact

Check for contact lenses which must be removed from the eyes before rinsing.
Promptly rinse eyes with plenty of clean water while lifting the eyelids.
Continue to rinse for at least 15 minutes. Continue until the eyes are free of all traces of contamination.
Get medical attention if any discomfort or irritation persists.

Inhalation.

In case of accident by inhalation: remove casualty to fresh air and keep at rest. Get medical attention if symptoms persist.

Ingestion

Not applicable.

Skin Contact

Wash skin thoroughly with plenty of water.

SECTION 5: FIREFIGHTING MEASURES

General : Non-combustible.

5.1. Extinguishing media : As appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture : Not applicable.

5.3. Advice for firefighters

Special Fire Fighting Procedures : As appropriate for surrounding fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing. Wear eye/face protection if appropriate for use.

General: Caution – spillages may be slippery. Avoid generating dust. Sweep or vacuum up and collect in suitable containers for recovery or disposal.

6.2. Environmental precautions : Avoid spillages.

6.3. Methods and material for containment and cleaning up

Sweep or vacuum up and collect in suitable containers for recovery or disposal.

6.4. Reference to other sections

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Do not breathe dust. Avoid generation of dust. Wash thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed container and dry.

7.3. Specific end use(s): Filler for cyanoacrylate.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

SUBSTANCE. Occupational Exposure Limits

Glass oxide; Glass No Occupational Exposure Limit assigned. 15mg/m³ total dust
5mg/m³ respirable

(Particulates Not Otherwise Regulated)

Ingredient Comments

8.2. Exposure controls

Process Conditions

Provide eyewash station.

Engineering Measures

Provide adequate general and local exhaust ventilation.

Respiratory Equipment

If ventilation is insufficient where suitable respiratory protection.

Seek recommendations and advice from equipment manufacturer or supplier.

Hand Protection

Wear suitable protective gloves eg cotton or rubber.

Eye Protection : Goggles.

Hygiene Measures

Wash promptly if skin becomes contaminated.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance : Glass solid.

Odour. : Odourless

pH : Not applicable.

Solubility : Insoluble.

Relative Density

Vapour Pressure : Not applicable

Viscosity : Not applicable

Flash Point : Not applicable

Auto Ignition Temperature : : Not applicable

Flammability Limit : Not applicable

Flammability Limit : Not applicable

9.2. Other information**SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity : Stable

10.2. Chemical stability :Stable

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid :

10.5. Incompatible materials

10.6. Hazardous decomposition products : None known

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**None known.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: No environmental hazards have been reported or known.

SECTION 13: DISPOSAL CONSIDERATIONS

General Information

The waste is considered to be non-hazardous. Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

EC Classification: Not classified as dangerous for transport.

ICAO/IATA: Not classified as dangerous for transport.

SECTION 15: REGULATORY INFORMATION

15.2. Chemical Safety Assessment : Not classified as dangerous for supply/use.

Hazard symbol: Not applicable.

SECTION 16: OTHER INFORMATION

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET: **BD29 SCENIC BOND**

(Used with BD29 Scenic Snow Kit)

Revision Date: 26/07/2015

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: SCENIC BOND

REACH Registration Number

This product is a mixture and therefore not directly subject of the registration requirements under REACH.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Modelling adhesive

1.3. Details of the supplier of the safety data sheet

Deluxe Materials Ltd
Unit 13, Cufaude Business Park
Cufaude Lane
Bramley
Hampshire
RG26 5DL
United Kingdom

Tel: +44 (0)1256 883 944

Fax: +44 (0)1256 883 966

SDS Contact (email of responsible person)

info@deluxematerials.com

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2 H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



Hazard pictograms :

Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

Additional Labelling:

EUH208 Contains: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1), 1,2-Benzisothiazol-3(2H)-one. , 2-Methyl-2H-isothiazol-3-one. May produce an allergic reaction.

2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Polymer aqueous dispersion.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Nonylphenol, branched, ethoxylated (12 E0)	68412-54-4	Eye Dam. 1; H318 Aquatic Chronic 3; H412	< 2
ammonia, anhydrous	7664-41-7 231-635-3 01- 2119488876- 14-XXXX	Flam. Gas 2; H221 Skin Corr. 1B; H314 Acute Tox. 3; H331 Aquatic Acute 1; H400 M-Factor 1	< 0.5
Formaldehyde	50-00-0 200-001-8 01- 2119488953- 20-XXXX	Carc. 1B; H350 Muta. 2; H341 Acute Tox. 3; H331 Acute Tox. 3; H311 Acute Tox. 3; H301 Skin Corr. 1B; H314 Skin Sens. 1; H317	< 0.01

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Get medical attention if symptoms occur.

Show this safety data sheet to the doctor in attendance.

If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.

In case of skin contact : Wash off immediately with soap and plenty of water. Remove contaminated clothing. If irritation develops, get medical attention. Wash contaminated clothing before reuse.

In case of eye contact : Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

If swallowed : If accidentally swallowed obtain immediate medical attention. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Repeated or prolonged exposure may cause irritation of eyes and skin.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Not combustible. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: No information available.

5.2 Special hazards arising from the substance or mixture

The pressure in sealed containers can increase under the influence of heat.

5.3 Advice for firefighters

Use personal protective equipment. The product itself does not burn. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

6.2 Environmental precautions

The product should not be allowed to enter drains, water courses or the soil.

6.3 Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Large spills should be collected mechanically (remove by pumping) for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labelled containers. Clean contaminated floors and objects thoroughly while observing environmental regulations. Dispose of in accordance with local regulations.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment. For personal protection see section 8. Avoid inhalation, ingestion and contact with skin and eyes. Do not use in areas without adequate ventilation. Smoking, eating and drinking should be prohibited in the application area.

7.2 Conditions for safe storage, including any incompatibilities

Store in original container. Keep in properly labelled containers. Store between 5 and 35 °C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Do not freeze.

7.3 Specific end uses

Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
ammonia, anhydrous	7664-41-7	TWA	25 ppm 18 mg/m ³	2007	EH40 (UK)
		STEL	35 ppm 25 mg/m ³	2007	EH40 (UK)
Formaldehyde	50-00-0	TWA	2 ppm 2.5 mg/m ³	2005	EH40 (UK)
		STEL	2.5 mg/m ³	2005	EH40 (UK)

DNEL

ammonia, anhydrous :

End Use: Workers

Exposure routes: Skin contact

Potential health effects: Short term, Systemic toxicity

68 mg/kg

End Use: Workers

Exposure routes: Inhalation

Potential health effects: Short term, Systemic toxicity

Value: 47.6 mg/m³

End Use: Workers

Exposure routes: Inhalation

Potential health effects: Short term, Local effects

Value: 36 mg/m³

End Use: Workers

Exposure routes: Skin contact
Potential health effects: Long term, Systemic toxicity
68 mg/kg
End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long term, Systemic toxicity
Value: 47.6 mg/m³
End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long term, Local effects
Value: 14 mg/m³
End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Short term, Systemic toxicity
68 mg/kg
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Short term, Systemic toxicity
Value: 23.8 mg/m³
End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Short term, Systemic toxicity
6.8 mg/kg
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Short term, Local effects
Value: 7.2 mg/m³
End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Long term, Systemic toxicity
68 mg/kg
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long term, Systemic toxicity
Value: 23.8 mg/m³
End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Long term, Systemic toxicity
6.8 mg/kg
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long term, Local effects
Value: 2.8 mg/m³

Formaldehyde :

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Short term, Local effects
Value: 1 mg/m³
End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long term, Systemic toxicity
240 mg/kg
End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long term, Systemic toxicity
Value: 9 mg/m³
End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long term, Local effects
Value: 0.037 mg/cm²
End Use: Workers

Exposure routes: Inhalation
Potential health effects: Long term, Local effects
Value: 0.5 mg/m³
End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Long term, Systemic toxicity
102 mg/kg
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long term, Systemic toxicity
Value: 3.2 mg/m³
End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Long term, Systemic toxicity
4.1 mg/kg
End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Long term, Local effects
Value: 0.012 mg/cm²
End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long term, Local effects
Value: 0.1 mg/m³

PNEC

ammonia, anhydrous :

Fresh water
Value: 0.0011 mg/l
Marine water
Value: 0.0011 mg/l
Intermittent use/release
Value: 0.0068 mg/l

Formaldehyde:

Fresh water
Value: 0.47 mg/l
Marine water
Value: 0.47 mg/l
Intermittent use/release
Value: 4.7 mg/l
Impact on Sewage Treatment
Value: 0.19 mg/l
Fresh water sediment
Value: 2.44 mg/kg
Marine sediment
Value: 2.44 mg/kg
Soil
Value: 0.21 mg/kg

8.2 Exposure controls

Engineering measures

Use adequate ventilation and/or engineering controls in high temperature processing to prevent exposure to vapours. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection : not required under normal use

Hand protection : Protective gloves complying with EN 374.: Nitrile rubber
Break through time: 480 min
Glove thickness: 0.1 - 0.4 mm: Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Safety glasses with side-shields conforming to EN166

Skin and body protection : not required under normal use. Skin should be washed after contact. Remove and wash contaminated clothing before re-use.

Hygiene measures : Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke.

Protective measures : Ensure that eye flushing systems and safety showers are located close to the working place.

Environmental exposure controls

General advice: The product should not be allowed to enter drains, water courses or the soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid, aqueous dispersion
Colour : white
Odour : ester-like
Odour Threshold : not determined
Melting point/freezing point : not determined
Boiling point : not determined
Flash point : not applicable
Evaporation rate : not determined
Flammability (solid, gas) : The product is not flammable.
Lower explosion limit : not applicable
Upper explosion limit : not applicable
Vapour pressure : ca. 23 hPa, at 20 °C
Relative vapour density : not determined
Relative density : 0.9 - 1.1
Water solubility : insoluble, completely miscible, in all proportions
Partition coefficient: noctanol/
water
: not determined
Ignition temperature : not applicable
Explosive properties : not applicable
Oxidizing properties : not applicable

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

Extremes of temperature and direct sunlight.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

No data is available on the product itself. Information given is based on data on the components and the toxicology of similar products.

Components:

Nonylphenol, branched, ethoxylated (12 E0):

Acute oral toxicity : LD50 Oral: > 2,000 mg/kg, rat

Serious eye damage/eye
irritation

: Severe eye irritation

ammonia, anhydrous:

Acute oral toxicity : LD50 Oral: 350 mg/kg, rat, OECD Test Guideline 401

Skin corrosion/irritation : Rabbit, OECD Test Guideline 404, Causes severe skin burns.

Serious eye damage/eye
irritation

: Severe eye irritation

Respiratory or skin

sensitization

: Does not cause skin sensitization.

Genotoxicity in vitro : OECD Test Guideline 471, In vitro tests did not show
mutagenic effects

Carcinogenicity : Based on available data, the classification criteria are not met.

Reproductive toxicity : Fertility and developmental toxicity tests did not reveal any
effect on reproduction.

STOT - single exposure : Exposure routes: Inhalation

Target Organs: Respiratory system

Assessment: May cause respiratory irritation.

STOT - repeated exposure : No data available

Formaldehyde:

Acute oral toxicity : LD50 Oral: 600 - 800 mg/kg, rat

Acute inhalation toxicity : LC50: 0.578 mg/l, rat

Acute dermal toxicity : LD50 Dermal: 270 mg/kg, Rabbit

Skin corrosion/irritation : Corrosive to skin

Serious eye damage/eye
irritation

: May cause irreversible eye damage.

Respiratory or skin

sensitization

: May cause sensitization by skin contact.

Carcinogenicity : Suspected of causing cancer.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : No data is available on the product itself.

Chronic aquatic toxicity : No data is available on the product itself.

Components:

Nonylphenol, branched, ethoxylated (12 E0):

Toxicity to fish : LC50: 10 - 20 mg/l, 96 h, Fish

Toxicity to daphnia and other aquatic invertebrates.

: 44 mg/l, 48 h, Daphnia magna (Water flea)

ammonia, anhydrous:

Toxicity to fish : LC50: 0.8 mg/l, 96 h, Fish, Very toxic to aquatic organisms.

Toxicity to daphnia and other aquatic invertebrates.

: EC50: 24.4 mg/l, 48 h, Daphnia magna (Water flea)

Toxicity to algae : No data available

Toxicity to fish (Chronic toxicity)

: No data available

Toxicity to daphnia and other aquatic invertebrates.

(Chronic toxicity)

: No data available

Formaldehyde:

Toxicity to fish : LC50: 41 mg/l, 96 h, Danio rerio (zebra fish)

Toxicity to daphnia and other aquatic invertebrates.

: EC50: 42 mg/l, 24 h, Daphnia magna (Water flea)

Product:

Biodegradability : Taking into consideration the properties of several components, the product is estimated not to be readily biodegradable according to OECD classification.

Components:

Nonylphenol, branched, ethoxylated (12 E0):

Biodegradability : OECD Test Guideline 301, Not readily biodegradable.

ammonia, anhydrous:

Biodegradability : No data available

Formaldehyde:

Biodegradability : Readily biodegradable, according to appropriate OECD test.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Bioaccumulation is unlikely.

Components:

ammonia, anhydrous:

Bioaccumulation : No data available

Formaldehyde:

Bioaccumulation : Bioaccumulation is unlikely.

12.4 Mobility in soil

Product:

Distribution among environmental compartments

: No data available

Physico-chemical removability

: 98 %, OECD Test Guideline 302, The product can be eliminated from water by abiotic processes, e.g. adsorption on activated sludge.

Components:

Formaldehyde:

Distribution among environmental compartments

: Medium: Soil, Highly mobile in soils

12.5 Results of PBT and vPvB assessment

Product:

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

This product has no known eco-toxicological effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

In accordance with local and national regulations.

The product should not be allowed to enter drains, water courses or the soil.

Waste water from subsequent processing should be given appropriate treatment in line with local regulations.

Contaminated packaging : In accordance with local and national regulations

SECTION 14: Transport information

14.1 UN number

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.2 Proper shipping name

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.3 Transport hazard class

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.4 Packing group

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.5 Environmental hazards

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.6 Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Water contaminating class

(Germany)

: WGK 1 slightly water endangering

Classification according VwVwS, Annex 4.

15.2 Chemical Safety Assessment

not applicable

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H221 Flammable gas.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

Information taken from reference works and the literature.

The information provided in this Safety Data Sheet is correct to the best of our knowledge,

information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Annex: Exposure Scenario(s)

Development of Exposure Scenario is not required.

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
Unit 13, Cufaude Business Park
Cufaude Lane
Bramley
Hampshire
RG26 5DL
United Kingdom

Company Telephone

Tel: +44 (0)1256 883 944
Fax: +44 (0)1256 883 966
Email: info@deluxematerials.com

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/m ³	None.
	OEL (CZ)	TWA	Dust, 5.0 mg/m ³	None.
	OEL (LV)	TWA	Dust, 5 mg/m ³	None.
	OEL (RU)	MAC	10 mg/m ³	None.
	OEL (SK)	TWA	Aerosol, 5.0 mg/m ³ 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.

Disclaimer

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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