

Snow Business

+ 44 (0) 1453 840077

Quality Data Sheet

C90 and C140 (Powder Snow)

Product

Highly pure cellulose

Typical Data

Appearance:

Cellulose Content %

Loose density (g/l)

Moisture %

pH-value ca./approx 6

Brightness - Elrepho (%)

C90

fine white powder

above 99 (dry base)

ca./approx 160

ca./approx 6

ca./approx 6

ca./approx 88

C140

white powder

above 99 (dry base)

ca./approx 60

ca./approx 6

ca./approx 6

ca./approx 86

Particle Size Distribution (Alpine Air Draught Sieve)

less than 200 μ (%)

less than 125 μ (%)

less than 90 μ (%)

less than 32 μ (%)

ca./approx 99

ca./approx 65

ca./approx 99

ca./approx 80

ca./approx 30

Applications

Frost.

Snow for building detail, roofs, sensitive sites and white out.

Scale snow for models.

Washes into the soil and biodegrades

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In accordance with 91/155/EEC

6. Accidental release measures.

- 6.1 Personal precaution measures: See note 8.3 "Personal equipment".
- 6.2 Environmental precautions and methods for cleaning up:
 - Keep away from drainage.
 - Take up by mechanical means.
 - Avoid formation of dust.
 - Inform responsible authorities after accidental conduction.
- 6.3 Further information: None.
- 6.4

7. Handling and storage.

7.1 Handling

- 7.1.1 Precautions for safe handling:
 - Keep container tightly closed and dry.
 - Take precautionary measures against static discharges.
 - Avoid formation of dust.
 - Keep container tightly closed, even when in use or empty
- 7.1.2 Precautions in case of fire and explosion:
 - Cool container by water spray jet.
 - Keep away from sources of ignition, do not smoke.

7.2 Storage

- 7.2.1 Storage instructions: Store in a cool dry place.
- 7.2.2 Store away from: Store away from explosive and oxidating substances.
- 7.2.3 Further information on storage conditions: None.
- 7.2.4 Storing class: n.av.

8. Exposure controls/personal protection

- 8.1 Information on the system design:
 - Provide sufficient ventilation.
 - Provision of personal protective equipment according to No. 8.3.
- 8.2 Exposure limits:
 - 8.2.1 Material
 - Kind, value, unit:
 - Cellulose
 - TRGS 900: 6mg/m³ (general dust limiting value)
 - (for monitoring exposure limits of ingredients of a preparation are only conditionally suitable)
- 8.3 Personal protection
 - 8.3.1 General protection and hygiene:
 - Before work, take precautionary measures against the forming of inhalable dust.
 - Avoid contact with eyes or skin.
 - Do not inhale dust.
 - 8.3.2 Respiratory protection:
 - Respiratory protection recommended if ventilation is not sufficient.
 - 8.3.3 Hand protection:
 - Protective gloves recommended.
 - 8.3.4 Eye protection:
 - Protective goggles recommended.
 - 8.3.5 Skin protection:
 - n.app.

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9. Physical and chemical properties

9.1	Appearance:	see item 16.
9.1.1	Odour:	characteristic
9.2	Safety- relevant data	
9.2.1	Boiling point/Boiling range (°C)	n.av., Melting point/Melting range(°C) n.av.
9.2.2	Flash point, c.c. (°C)	n.av.
9.2.3	pH-value, undiluted:	n.ap. see item 16.
9.2.4	Flammability (EC A10/A13):	n.av.
9.2.5	Ignition temperature:	n.av.
9.2.6	Autoflammability (EC A16):	n.av.
9.2.7	Oxidising properties:	n.av.
9.2.8	Explosion hazard:	n.av.
9.2.9	Explosion limits (vol.%) lower	n.av. upper n.av.
	Thermal decomposition (°C)	see item 10.
9.3	Other data:	
9.3.1	Density (g/ml):	see item 16.
9.3.2	Solubility:	see item 16.
9.3.3	Vapour pressure:	n.av.
9.3.4	Vapour density (Air = 1)	n.av.
9.3.5	Partition coefficient, n-octanol/water:	n.av.
9.3.6	Viscosity:	n.ap.
9.3.7	Solvent separation test:	n.av.
9.3.8	Solvent content: (m%):	none
9.3.8	Evaporation rate:	n.av.

10. Stability and reactivity

10.1	Conditions to avoid and materials to avoid:	
	Product decomposes at temperatures higher than 200°C releasing harmful gasses.	
	May form explosive dust-air mixture.	
	See also No. 7.	
10.2	Hazardous decomposition products:	None.
10.3	Further information:	None.

11. Toxicological information

11.1	Acute health effects	
11.1.1	Inhalation, LC50 rat (mg/1/4h):	n.av.
11.1.2	Ingestion, LD50 rat, oral (mg/kg):	n.av.
11.1.3	Skin contact, LD50 rat, dermal (mg/kg):	n.av.
11.1.4	Eye contact, LD50, rat, dermal (mg/kg):	n.av.
11.2	Subacute or chronic toxicity:	
11.2.1	Sensitisation:	n.av.
11.2.2	Carcinogenicity:	n.av.
11.2.3	Mutagenicity:	n.av.

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11.2.4	Teratogenicity:	n.av.
11.2.5	Narcosis:	n.av.
11.3	Human experience	n.av.
11.4	Additional toxicological information:	None

12. Ecological information

12.1	Elimination (persistence and degradability):	n.av.
12.2	Behaviour in sewage works:	n.av.
12.3	Aquatic Toxicity:	n.av.
12.4	Other ecological information:	
12.4.1	COD value, mg/g:	n.av.
12.4.2	BOB value, mg/g:	n.av.
12.4.3	ACX-remark:	n.av.
12.4.4	Significant components:	None.

13. Disposal considerations

13.1	Residues:	
13.1.1	Recommendation:	Please comply with the national or regional authorities.
13.1.2	Safe handling:	Please refer to items 7. and 15.
13.2	Contaminated packaging:	
13.2.1	Recommendation:	Please comply with the national or regional authorities.
13.2.2	Safe handling:	As described under residues.

14. Transport information

14.1.1	Classification for transportation by road or railway - ADR/GGVS and RID/GGVE:			
	Remark:	No hazardous material according to GGVS/ADR.		
	Class/Division:			
14.1.2	Instructions for transportation in tanks:	Hazard No:	UN No:	
14.1.3	Instructions concerning shipper's declaration and packaging.			
	Article No.	Volume or mass	Description of goods	Risk label
			Packing code or marginal	
	n.av.			
14.1.4	Listed cargo as per Appendix B.8.			
14.1.5	Remark: The description of dangerous goods must be supplemented by the appropriate class and division and the addition "GGVS/ADR", unless the dangerous cargoes are exempted therefrom.			
	Additional designation in the shipper's declaration:		Inscription on packaging:	
14.2.1	Classification for transportation by inland navigation		ADNR/GGVBinSch:	
	Remark:			
	Class:	Division:	Category:	
14.2.2	Description of goods:			
14.2.3	Remark: None.			

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- 14.3.1 Classification for transportation by vessels: IMDG/GGVSee:
 Remark: No hazardous material according to GGVSee/IMDG-Code.
 Class: UN No: Packaging group:
- 14.3.2 EmS-No: MFAG table:
- 14.3.3 Marine pollutant:
- 14.3.4 Instruction for the responsible declaration and labelling:
 (Without consideration of packing sizes for possible exemptions.)
 Proper shipping name / Risk label.
- 14.3.5 Remark: None
- 14.4.1 Classification for transportation by air IATA-DGR/ICAO-TI
 Remark: No hazardous material according to IATA-DGRGGVSee/IMDG-Code.
 Class: UN No: Packaging group:
- 14.4.2 Instruction for the responsible declaration and labelling:
 (Without consideration of packing sizes for possible exemptions.)
 Proper shipping name / Risk label.
 Packing instructions, Cargo: Passenger:
- 14.4.3 Remarks: None

15. Regulatory information:

- 15.5 Data on classification according to the GefStoffV/EEC-regulations:
 Classification regulated by GefStoffV: No. Applicable exemptions:
 Hazard symbol(s): Hazard identification:
 Component(s):
 R-phrases:

 S-phrases:

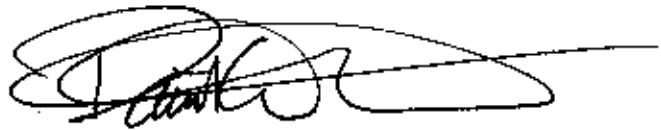
 Additional markings:
- 15.1.1 Remark: The classification with respect to forms and possible exemptions according to GefStoffV are given in the present regulation. The national regulations mentioned below can prescribe additional markings.
- 15.2 **National regulations:**
 For the distribution or handling please comply with the national (regional) regulations or any other national measures that may be relevant.

16. Other information

For additional information kindly refer to the attached quality data sheet. P1.

The statements in this bulletin were made to the best of our knowledge and are as accurate as possible. They are given for information only. They do not constitute a contractual guarantee of a product's properties. They must neither be altered nor transferred to other products.

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Revision number 2000

Snow effects safety data sheet and risk assessment - C 90'

supplied by:- Snow Business, The Snow Mill, Bridge Road, Ebley, Stroud,
Gloucestershire, GL5 4TR. Tel/ Fax: + 445 (0)1453 840077

Material :

C 90 is a micro fine, pure cellulose powder supplied in clear plastic sacks each weighing 25 kg.

Equipment involved:

Electric C 90 snow blower, with water pump and flexible delivery hoses of up to 200 m length. Water hoses for clearing where applicable.

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Electric C 90 snow blower, with water pump and flexible delivery hoses of up to 200 m length. Water hoses for clearing where applicable.

Visual properties:

A soft white powder that sticks to everything that has been pre-wet forming a micro fine layer of white. In the foreground this registers as frost allowing the texture and detail of the object covered to show through. On stone and building detail it registers as snow, as it does in the background where it creates a white out effect.

Advantages:

The material is laid very quickly. It is bio-degradable and 'disappears' easily when washed into porous ground. It does not damage or 'burn' vegetation and is not absorbed into porous stone. The material does not effect grazing.

Disadvantages:

When being blow, material can be lost to the wind which increases cost and can cause a nuisance to adjacent properties. The material is designed to wash away so where large areas are dressed, rain, particularly with wind, can wash the set clean before shooting is complete.

Potential Hazards and risks:

The material is a dust. People with eye or respiratory problems may experience discomfort if downwind from the area being dressed. During wet down in freezing conditions ice may form. Open windows in buildings being dressed can allow dust inside causing major cleaning liabilities.

Recommendations:

Precautions should be taken where ice may pose a hazard. Buildings should be checked for open windows. Neighbours should be forewarned of possible dust overspill.

Additional information: Conforms to BS 5852 part 2, schedule 2, part 1, / Schedule 5 part 3 of Furniture and Furnishings (fire) (safety) regulations as amended 1989.

Name: David G Crownshaw

Signature: 

Position: Snow Effects Designer

Date: 09/09/99

Location Address

Date 1998

Snow Effects Designer David G Crownshaw

Description of Effect

A soft white micro fine powder comprised of pure cellulose.

The powder gives the effect of laid snow on solid surfaces such as roads and paths. On grass or soil it appears as a heavy frost to foreground and whites out to a snow covering in the background.

It stands close scrutiny and is suitable for small scale model sets.

C90 is a very fine powder and there are larger variations such as the more coarse C140 which can be used in poor weather conditions or where more bonding is required.

Setting up

C90 is distributed over the set via an electric snow blower with a rotary air valve that delivers the powder down a 3" flexible tube of up to 200 m length. As the powder exits the tube it looks like a cloud of white smoke. The powder coats everything it touches with a micro fine layer of white. If the area is sprayed with water first the powder adheres better giving a heavier and more durable coating.

The effect will last the duration of the shoot day unless rain and winds prevail. As the material is a dust, care has to be taken to assess prevailing winds as the dust can be carried for hundreds of meters downwind. Windows must be closed, neighbors who may be effected should be warned and nuisance dust masks should be available to anyone who wants one.

The dressing crew should all wear dust masks and eye protection if desired.

Care must be exercised where delivery lines trail, where these cross public footpaths 'Locations' may wish to place ramps or warning signs.

The snow is laid at high speed, when the equipment is operational other unit members must respect the working area by keeping themselves and their equipment clear or covered. Attention must be paid to prevailing winds as snow will travel downwind.

C90 can be used up to the edge of rivers but care must be exercised to avoid pollution in streams and rivers as any biodegradable material deoxygenates water as it breaks down.

On set

When the water used to bond the C90 dries, the powder will remain in place until physically removed.

When there is strong wind the whipping action of the trees or grass will slowly remove the powder, wind and rain combined will accelerate that removal severely.

Where the powder is dry the effect is prone to let a trail of dust rise behind action which is unrealistic and the area should be kept damped down to prevent this.

Clearing

C90 can be left for the elements to clean. If a site has to be clean on wrap the effect can be dispersed using air or water spray. The powder is so fine that it will be easily absorbed into porous surfaces such as soil, lawn and dirt. making it relatively easy to return the site back to its original appearance.

On non porous surfaces the dust tends to collect as a white sludge wherever the water pools and will require physical lifting. Non porous surfaces are best cleaned using road sweeping devices.

Care should be taken to avoid excessive amounts of the powder being washed into drains or water courses.

The material is pure cellulose and is fully bio-degradable.

Full COSHH assessments are available on request from Snow Business.

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