

SAFETY DATA SHEET

Ice Foe

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

1.1. Product identifier

Product name	Ice Foe
Chemical name	Calcium chloride
REACH registration number	01-2119494219-28-XXXX
CAS number	10043-52-4
EU index number	017-013-00-2
EC number	233-140-8

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

Identified uses	Deicer
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1.3. Details of the supplier of the safety data sheet

Supplier	Aztec Chemicals Unit 16, University Way Orion Park Crewe Cheshire CW1 6NG + 44 (0) 1270 655500 (T) + 44 (0) 1270 655501 (F) info@aztecchemicals.com
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1.4. Emergency telephone number

Emergency telephone	+44 (0)7831 300868
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards	Not Classified
Health hazards	Eye Irrit. 2 - H319
Environmental hazards	Not Classified

Classification (67/548/EEC or 1999/45/EC) Xi;R36.

2.2. Label elements

EC number	233-140-8
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Pictogram



Signal word	Warning
Hazard statements	H319 Causes serious eye irritation.

Ice Foe

Precautionary statements

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

P313 Get medical advice/attention.

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.

P102 Keep out of reach of children.

P264 Wash hands thoroughly after handling.

P280 Wear eye and face protection.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances

CALCIUM CHLORIDE	60-100%
CAS number: 10043-52-4	EC number: 233-140-8
	REACH registration number: 01-2119494219-28
Classification	Classification (67/548/EEC or 1999/45/EC)
Eye Irrit. 2 - H319	Xi;R36

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Product name	Ice Foe
REACH registration number	01-2119494219-28-XXXX
EU index number	017-013-00-2
CAS number	10043-52-4
EC number	233-140-8

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Take off contaminated clothing and wash it before reuse.
Inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms are severe or persist.
Ingestion	Rinse nose, mouth and throat with water. Get medical attention. DO NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Skin contact	Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

General information	The product is considered to be a low hazard under normal conditions of use.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Ice Foe

Suitable extinguishing media The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours. Hydrogen chloride (HCl).

5.3. Advice for firefighters

Protective actions during firefighting Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

Special protective equipment for firefighters Wear chemical protective suit. Use air-supplied respirator, gloves and protective goggles. Contain and collect extinguishing water. Prevent entry into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

For non-emergency personnel Avoid dust spreading. Provide adequate ventilation. Avoid contact with skin and eyes. Do not breathe dust.

6.2. Environmental precautions

Environmental precautions Do not discharge onto the ground or into water courses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Avoid eating, drinking and smoking when using the product. Keep container tightly sealed when not in use. For personal protection, see Section 8. Avoid contact with skin, eyes and clothing. Avoid dust spreading.

Advice on general occupational hygiene Provide eyewash station and safety shower. Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class The product is not flammable. Keep container tightly closed, in a cool, well ventilated place. The substance is hygroscopic and will absorb water by contact with the moisture in the air. Keep away from food, drink and animal feeding stuffs. Strong oxidising agents.

7.3. Specific end use(s)

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Ice Foe

Occupational exposure limits

No classified ingredients, or those having occupational exposure limits, present above the levels of disclosure.

CALCIUM CHLORIDE

No classified ingredients, or those having occupational exposure limits, present above the levels of disclosure.

DNEL	Industry - Inhalation; Short term : 10 mg/m ³
	Industry - Inhalation; Long term : 5 mg/m ³
	Professional - Inhalation; Long term : 5 mg/m ³
	Professional - Inhalation; Short term : 10 mg/m ³
	Consumer - Inhalation; Short term : 5 mg/m ³
	Consumer - Inhalation; Long term : 2.5 mg/m ³

PNEC	- Soil; 150 mg/m ³
	- Sensitive terrestrial plants; 215 mg/kg

CALCIUM CHLORIDE (CAS: 10043-52-4)

DNEL	Industry - Inhalation; Short term : 10 mg/m ³
	Industry - Inhalation; Long term : 5 mg/m ³
	Professional - Inhalation; Long term : 5 mg/m ³
	Professional - Inhalation; Short term : 10 mg/m ³
	Consumer - Inhalation; Short term : 5 mg/m ³
	Consumer - Inhalation; Long term : 2.5 mg/m ³

PNEC	- Soil; 150 mg/m ³
	- Sensitive terrestrial plants; 215 mg/kg

8.2. Exposure controls

Appropriate engineering controls	Observe occupational exposure limits and minimize the risk of inhalation of vapours.
Personal protection	When using do not smoke
Eye/face protection	Wear eye protection.
Hand protection	Wear protective gloves. The breakthrough time for any glove material may be different for different glove manufacturers.
Other skin and body protection	Wear protective clothing.
Hygiene measures	Wash hands at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter (type P2). Particulate filter, type P3.
Environmental exposure controls	Do not allow undiluted product to enter drains.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Solid.
Colour	White.
Odour	Odourless.
pH	pH (concentrated solution): 9 - 10.5 (100g/L at 20°C)

Ice Foe

Melting point	782°C
Initial boiling point and range	1600°C @
Flammability (solid, gas)	The product is not flammable.
Relative density	2.15 @ 20°C
Bulk density	~ 1000 kg/m ³
Solubility(ies)	745 g/l water @ 20°C
Explosive properties	Not considered to be explosive.

9.2. Other information

Molecular weight	110.98 g/mol
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable at normal ambient temperatures and when used as recommended.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not available.
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10.4. Conditions to avoid

Conditions to avoid	Water, moisture.
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10.5. Incompatible materials

Materials to avoid	Alkaline earth metals. Alkali metals.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Not known. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Hydrogen chloride (HCl).
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀)	Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. LD ₅₀ 2301 mg/kg, , Rat
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Acute toxicity - dermal

Notes (dermal LD₅₀)	LD ₅₀ >5000 mg/kg, ,
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Acute toxicity - inhalation

Notes (inhalation LC₅₀)	Dust is severely irritating to the upper respiratory system. Difficulty in breathing.
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Skin corrosion/irritation

Animal data	Not irritating.
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Serious eye damage/irritation

Serious eye damage/irritation	Risk of serious damage to eyes.
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Respiratory sensitisation

Ice Foe

Respiratory sensitisation	Not sensitising.
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	This substance has no evidence of mutagenic properties.
Genotoxicity - in vivo	This substance has no evidence of mutagenic properties.
<u>Carcinogenicity</u>	
Carcinogenicity	Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	- NOAEL 169 mg/kg, , Rabbit P Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	
Aspiration hazard	Not anticipated to present an aspiration hazard, based on chemical structure.
<u>Inhalation</u>	
Inhalation	Irritating to respiratory system.
<u>Ingestion</u>	
Ingestion	May cause irritation. Symptoms following overexposure may include the following: Stomach pain. Nausea, vomiting. Diarrhoea.
<u>Skin contact</u>	
Skin contact	Prolonged and frequent contact may cause redness and irritation.
<u>Eye contact</u>	
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

Toxicological information on ingredients.

CALCIUM CHLORIDE

Acute toxicity - oral

Notes (oral LD₅₀) Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. LD₅₀ 2301 mg/kg, , Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >5000 mg/kg, ,

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Dust is severely irritating to the upper respiratory system. Difficulty in breathing.

Skin corrosion/irritation

Animal data Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Risk of serious damage to eyes.

Respiratory sensitisation

Ice Foe

Respiratory sensitisation Not sensitising.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties.

Genotoxicity - in vivo This substance has no evidence of mutagenic properties.

Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity - fertility - NOAEL 169 mg/kg, , Rabbit P Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

SECTION 12: Ecological Information

Ecotoxicity There are no data on the ecotoxicity of this product.

12.1. Toxicity

Acute toxicity - fish LC₅₀, 96 hours: 4630 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 2400 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 2900 mg/l, Pseudokirchneriella subcapitata

Chronic toxicity - fish early life stage Scientifically unjustified.

Chronic toxicity - aquatic invertebrates Scientifically unjustified.

Ecological information on ingredients.

CALCIUM CHLORIDE

Acute toxicity - fish LC₅₀, 96 hours: 4630 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 2400 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 2900 mg/l, Pseudokirchneriella subcapitata

Ice Foe

Chronic toxicity - fish early life stage Scientifically unjustified.

Chronic toxicity - aquatic invertebrates Scientifically unjustified.

12.2. Persistence and degradability

Persistence and degradability Not applicable.

Biodegradation Not applicable.
The product contains inorganic substances which are not biodegradable.

Ecological information on ingredients.

CALCIUM CHLORIDE

Persistence and degradability Not applicable.

Biodegradation Not applicable.
The product contains inorganic substances which are not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product is not bioaccumulating.

Ecological information on ingredients.

CALCIUM CHLORIDE

Bioaccumulative potential The product is not bioaccumulating.

12.4. Mobility in soil

Mobility Not available.

Ecological information on ingredients.

CALCIUM CHLORIDE

Mobility Not available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

CALCIUM CHLORIDE

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Do not allow runoff to sewer, waterway or ground.

Ecological information on ingredients.

CALCIUM CHLORIDE

Other adverse effects Do not allow runoff to sewer, waterway or ground.

Ice Foe

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Disposal together with normal waste is not allowed. Empty contaminated packaging thoroughly. It can be recycled after thorough and proper cleaning. Packaging that cannot be cleaned are to be disposed of in the same manner as the product.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not empty into drains.
Waste class	Not available.

SECTION 14: Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).
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14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Dangerous Substances Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC. System of specific information relating to Dangerous Preparations. 2001/58/EC. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010.

Ice Foe

Guidance

Workplace Exposure Limits EH40.
CHIP for everyone HSG228.
Safety Data Sheets for Substances and Preparations.
Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date	12/06/2015
Revision	1
SDS number	10510
SDS status	Approved.
Risk phrases in full	R36 Irritating to eyes.
Hazard statements in full	H319 Causes serious eye irritation.

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.