



## SAFETY DATA SHEET

### Arctic Spray

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

##### 1.1. Product identifier

**Product name** Arctic Spray

**Product number** ZE1 - ZE2

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

**Identified uses** Freezer Spray

##### 1.3. Details of the supplier of the safety data sheet

**Supplier** Arctic Hayes  
Unit 11 Glover Way  
Parkside Industrial Estate  
Beeston  
Leeds  
LS11 5JP  
(T) +44 (0)113 271 5245

##### 1.4. Emergency telephone number

**Emergency telephone** +44 (0)113 271 5245

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

**Physical hazards** Aerosol 3 - H229

**Health hazards** Not Classified

**Environmental hazards** Not Classified

**Physicochemical** Not considered to be a significant hazard due to the small quantities used. Aerosol containers can explode when heated, due to excessive pressure build-up.

##### 2.2. Label elements

**Signal word** Warning

**Hazard statements** H229 Pressurised container: may burst if heated.

**Precautionary statements** P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P251 Do not pierce or burn, even after use.  
P260 Do not breathe vapour/ spray.  
P271 Use only outdoors or in a well-ventilated area.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.  
P501 Dispose of contents/ container in accordance with local regulations.

## Arctic Spray

**Supplemental label information**                      Contains HFO-1234ze (CAS number: 29118-24-9).

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>HFO-1234ze</b>		<b>60-100%</b>
CAS number: 29118-24-9	EC number: 471-480-0	REACH registration number: 01-0000019758-54-XXXX
<b>Classification</b>		
Press. Gas (Liq.) - H280		

The full text for all hazard statements is displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General information</b>	Move affected person to fresh air at once.
<b>Inhalation</b>	Move affected person to fresh air at once. If breathing stops, provide artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.
<b>Ingestion</b>	Rinse mouth thoroughly with water.
<b>Skin contact</b>	Rinse with water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Rinse with water. Get medical attention if any discomfort continues.

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

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
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### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	The product is not flammable. Cool aerosol containers exposed to heat with water spray and remove container, if no risk is involved.
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### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Containers can burst violently or explode when heated, due to excessive pressure build-up. Decomposes on contact with flames and hot surfaces to produce hydrofluoric acid and fluorophosgene. Containers can burst violently or explode when heated, due to excessive pressure build-up.
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### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Warn firefighters that aerosols are involved. Containers close to fire should be removed or cooled with water.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

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### 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.

#### 6.2. Environmental precautions

**Environmental precautions**   Not considered to be a significant hazard due to the small quantities used.

#### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up**       VENTILATE/EVAPORATE.

#### 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.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions**         Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 degrees Centigrade. Do not pierce or burn, even after use.

#### 7.3. Specific end use(s)

**Specific end use(s)**         The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

##### **HFO-1234ze**

Long-term exposure limit (8-hour TWA): SUP 800 ppm

**Ingredient comments**        WEL = Workplace Exposure Limits

##### HFO-1234ze (CAS: 29118-24-9)

<b>Ingredient comments</b>	SUP = Supplier's recommendation.
<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 3902 mg/m <sup>3</sup> Consumer - Inhalation; Long term systemic effects: 830 mg/m <sup>3</sup>
<b>PNEC</b>	- Fresh water; 0.1 mg/l

#### 8.2. Exposure controls

**Appropriate engineering controls**   This product must not be handled in a confined space without adequate ventilation.

**Personal protection**           Do not eat, drink or smoke when using this product.

**Eye/face protection**           Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.

**Hand protection**               Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

**Other skin and body protection**   Not relevant

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**Hygiene measures** Good personal hygiene procedures should be implemented. Clean equipment and the work area every day.

**Respiratory protection** If ventilation is inadequate, suitable respiratory protection must be worn.

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Aerosol.
<b>Colour</b>	Colourless.
<b>Odour</b>	No characteristic odour.
<b>Melting point</b>	-108°C
<b>Initial boiling point and range</b>	-26°C @
<b>Flash point</b>	n/a°C
<b>Vapour pressure</b>	561 kPa @ °C
<b>Vapour density</b>	3.5 (Air = 1)
<b>Relative density</b>	1.206
<b>Partition coefficient</b>	Pow: 1.06
<b>Auto-ignition temperature</b>	>743°C
<b>Comments</b>	Information given is applicable to the major ingredient.

#### 9.2. Other information

<b>Other information</b>	Not available.
<b>Molecular weight</b>	102.4 g/mol
<b>Volatile organic compound</b>	This product contains a maximum VOC content of 0 g/l.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

**Reactivity** Stable at normal ambient temperatures and when used as recommended.

#### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended.

#### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Does not decompose when used and stored as recommended.

#### 10.4. Conditions to avoid

**Conditions to avoid** Avoid heat, flames and other sources of ignition.

#### 10.5. Incompatible materials

**Materials to avoid** Keep away from oxidising materials, heat and flames.

#### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

<b>General information</b>	This product has low toxicity. Only large quantities are likely to have adverse effects on human health.
<b>Inhalation</b>	May cause respiratory system irritation.
<b>Ingestion</b>	No specific health hazards known.
<b>Skin contact</b>	Skin irritation should not occur when used as recommended.
<b>Eye contact</b>	Irritating to eyes.
<b>Acute and chronic health hazards</b>	This product has low toxicity. Only large quantities are likely to have adverse effects on human health.
<b>Route of exposure</b>	Inhalation
<b>Target organs</b>	Respiratory system, lungs
<b>Medical symptoms</b>	Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting.

### SECTION 12: Ecological Information

**Ecotoxicity** No data on possible environmental effects have been found.

#### 12.1. Toxicity

**Toxicity** Not available.

#### Ecological information on ingredients.

##### HFO-1234ze

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >117 mg/l, Cyprinus carpio (Common carp)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: >160 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** NOEC, Biomass  
., Growth rate, 72 hours: >170 mg/l, Algae

**Acute toxicity - terrestrial** LC<sub>50</sub>, 4 hours: >207000 ppm, Rat  
NOEC, Repeated Dose Toxicity, 90 days: 5000 ppm, Rat

#### 12.2. Persistence and degradability

**Persistence and degradability** Not available.

#### Ecological information on ingredients.

##### HFO-1234ze

**Persistence and degradability** Aerobic Not readily biodegradable.

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential** Not available.

**Partition coefficient** Pow: 1.06

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## Ecological information on ingredients.

### HFO-1234ze

Partition coefficient                      log Pow: 1.6

#### 12.4. Mobility in soil

Mobility                                      Not known.

#### 12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment      Not available.

#### 12.6. Other adverse effects

Other adverse effects                      Not available.

### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

General information                      Do not puncture or incinerate, even when empty.

Disposal methods                          Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### **SECTION 14: Transport information**

**General**                                      This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG. These provisions allow transport of aerosols of less than 1 litre packed in cartons of less than 30kg gross weight to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported as Limited Quantities. Aerosols not so packed and labelled must show the following.

#### 14.1. UN number

UN No. (ADR/RID)                          1950

UN No. (IMDG)                              1950

UN No. (ICAO)                              1950

UN No. (ADN)                                1950

#### 14.2. UN proper shipping name

Proper shipping name (ADR/RID)          AEROSOLS

Proper shipping name (IMDG)              AEROSOLS

Proper shipping name (ICAO)              AEROSOLS

Proper shipping name (ADN)                AEROSOLS

#### 14.3. Transport hazard class(es)

ADR/RID class                                2.2

ADR/RID classification code                5A,5O

ADR/RID label                                2.2

IMDG class                                    2.2

ICAO class/division                          2.2

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**ADN class** 2.2

### Transport labels



### 14.4. Packing group

**ADR/RID packing group** None  
**IMDG packing group** None  
**ADN packing group** None  
**ICAO packing group** None

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**  
 No.

### 14.6. Special precautions for user

**EmS** F-D, S-U  
**ADR transport category** 3  
**Tunnel restriction code** (E)

### 14.7. Transport in bulk according to Annex II of MARPOL 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** EH40/2005 Workplace exposure limits.  
 The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).  
 The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824).  
 The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

**EU legislation** Commission Regulation (EU) No 453/2010 of 20 May 2010.

**Guidance** 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 comments** This is first issue.  
**Revision date** 19/10/2017  
**Revision** 1  
**SDS number** 21337  
**SDS status** Approved.

## Arctic Spray

**Hazard statements in full**

H229 Pressurised container: may burst if heated.

H280 Contains gas under pressure; may explode if heated.

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.