SAFETY DATA SHEET
Spray Duster

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

1.1. Product identifier
Product name: Spray Duster
Product number: ZE29 - ZE294

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

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

Detergent labelling
≥ 30% halogenated hydrocarbons

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
<th>CAS number</th>
<th>EC number</th>
<th>REACH registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFO-1234ze</td>
<td>60-100%</td>
<td>29118-24-9</td>
<td>471-480-0</td>
<td>01-0000019758-54-XXXX</td>
</tr>
</tbody>
</table>

Classification
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

General information
Move affected person to fresh air at once.

Inhalation
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.

Ingestion
Rinse mouth thoroughly with water.

Skin contact
Rinse with water. Get medical attention if any discomfort continues.

Eye contact
Rinse with water. Get medical attention if any discomfort continues.

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

General information
The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
The product is not flammable. Cool aerosol containers exposed to heat with water spray and remove container, if no risk is involved.

5.2. Special hazards arising from the substance or mixture

Specific hazards
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.

5.3. Advice for firefighters

Protective actions during firefighting
Warn firefighters that aerosols are involved. Containers close to fire should be removed or cooled with water.

Special protective equipment for firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
Spray Duster

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)

Ingredient comments
SUP = Supplier’s recommendation.

DNEL
Workers - Inhalation; Long term systemic effects: 3902 mg/m³
Consumer - Inhalation; Long term systemic effects: 830 mg/m³

PNEC
- 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
Spray Duster

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

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

Appearance
Aerosol.

Colour
Colourless.

Odour
No characteristic odour.

Melting point
-108°C

Initial boiling point and range
-26°C @

Flash point
n/a°C

Vapour pressure
561 kPa @ °C

Vapour density
3.5 (Air = 1)

Relative density
1.206

Partition coefficient
Pow: 1.06

Auto-ignition temperature
>743°C

Comments
Information given is applicable to the major ingredient.

9.2. Other information

Other information
Not available.

Molecular weight
102.4 g/mol

Volatile organic compound
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.
Spray Duster

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General information
This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

Inhalation
May cause respiratory system irritation.

Ingestion
No specific health hazards known.

Skin contact
Skin irritation should not occur when used as recommended.

Eye contact
Irritating to eyes.

Acute and chronic health hazards
This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

Route of exposure
Inhalation

Target organs
Respiratory system, lungs

Medical symptoms
Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache, Fatigue, Nausea, vomiting.

Toxicological information on ingredients.

HFO-1234ze

Germ cell mutagenicity

Genotoxicity - in vitro
Gene mutation, (Mammalian bone-marrow cytogenetic test, chromosomal analysis), Mouse, Micronucleus., Inhalation: Negative.

Genotoxicity - in vivo
Gene mutation, (Mammalian bone-marrow cytogenetic test, chromosomal analysis), Mouse, Micronucleus., Inhalation: Negative.

Reproductive toxicity

Reproductive toxicity - fertility
Two-generation study - NOAEL >20000 ppm, Inhalation, Rat F1, P

Reproductive toxicity - development
Maternal toxicity:, NOEC, Developmental toxicity:, NOAEC - : 15000 ppm, Inhalation, Rat

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
LC₅₀, 96 hours: >117 mg/l, Cyprinus carpio (Common carp)

Acute toxicity - fish
EC₅₀, 48 hours: >160 mg/l, Daphnia magna

Acute toxicity - aquatic invertebrates
NOEC, Biomass

Acute toxicity - aquatic plants
Growth rate, 72 hours: >170 mg/l, Algae
Spray Duster

Acute toxicity - terrestrial

LC₅₀, 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

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**
Spray Duster

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
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 Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.
Spray Duster

EU legislation

Guidance
Workplace Exposure Limits EH40.
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 comments
This is first issue.

Revision date
19/10/2017

Revision
1

SDS number
21339

SDS status
Approved.

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.