

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

1.1 Product identifier

Product name: SwanSlip Aerosol

Other identification:

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

Lubricant aerosol

1.3 Details of the supplier of the safety data sheet

SwanTek

Mintsfeet Road South, Kendal, LA9 6ND, UK

Tel: +44 (0)1539 722247 Email: service@swantek.com Web: www.swantek.com

1.4 Emergency telephone number

As per section 1.3

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Physical and Chemical Hazards: Aerosol, Category 3

Human health: Not classified

Environment: Not classified

2.2 Label elements

Hazard pictograms: (none)

(none)

(none)

(none)

Signal word: Warning

Hazard statements: H229 Pressurised container: may burst if heated

Precautionary statements: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing 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.

Other label elements:

2.3 Other hazards

Section 3: Composition / information on ingredients

3.1 Substances

3.2 Mixtures

Chemical Name: trans-1,3,3,3-TETRAFLUOROPROP-1-ENE (R1234Ze)

CAS No./EC No./Reg. No: 29118-24-9, 471-480-0, 01-0000019758-54

Classification (1272/2008/EC): Gas under pressure - Liquefied gas; H280

Content: 80-90%

See Section 16 for the full text of the H-statements noted above.

Section 4: First aid measures

4.1 Description of first aid measures

General: Remove casualty from exposure ensuring one's own safety whilst doing so. Take off any contaminated clothing and shoes/boots immediately. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. Seek medical advice.

Ingestion: Not applicable.

Skin: Rapid evaporation of the liquid may cause frostbite. Bathe with lukewarm water. Seek medical advice if pain or irritation persists.

Eye: May cause a freezing sensation to eye tissue. If pain or irritation persists, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

General: See skin and eye contact information above.

Inhalation:

Ingestion:

Skin:

Eye:

4.3 Indication of any immediate medical attention and special treatment needed

See skin and eye contact information above.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide; dry chemical powder; alcohol or polymer foam.

Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture

Heat may cause aerosols to burst. Irritating/toxic fumes may be released at elevated temperatures.

5.3 Advice for firefighters

Wear self-contained breathing apparatus. Use personal protective equipment. Standard procedure for chemical fires.

Use water spray to cool containers. Do not allow fire run-off to enter drains.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Vapours are heavier than air and can cause suffocation by reducing the oxygen available for breathing.

6.2 Environmental precautions

Prevent further leakage if safe to do so. The product evaporates readily.

6.3 Methods and material for containment and cleaning up

Allow to evaporate and ventilate the area.

6.4 Reference to other sections

See sections 8 and 13 for personal protection and disposal information.

Section 7: Handling and storage

7.1 Precautions for safe handling

Do not breathe spray mist. Avoid contact with skin and eyes. Handle with care.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, well ventilated area, below 50°C. Protect from frost, heat and sunlight. Keep away from food, drink and animal feed.

7.3 Specific end use(s)

No information available.

Section 8: Exposure controls / personal protection

8.1 Control parameters

trans-1,3,3,3-TETRAFLUOROPROP-1-ENE (R1234Ze)

8hr TWA: 800 ppm

DNEL/PNEC: No data available

8.2 Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Unlikely to be necessary in normal circumstances; if vapour levels are high, wear a respirator conforming to EN 136, 140 or 149.

Hand protection: Wear chemically resistant gloves such as butyl rubber approved to standard EN 374; material thickness

0.5mm; break through time \geq 480 min. Gloves must be replaced after 8 hours of wear. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Check with glove manufacturer for specific advice.

Eye protection: Chemical splash goggles if eye contact is reasonably probable. The selected goggles or glasses must satisfy the European standard EN 166.

Skin and body protection: General workwear.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practices. Do not eat or drink whilst using the product. Wash hands before breaks and at the end of the work day. Wash contaminated clothing before re-use. Environmental exposure controls: Do not discharge into drains or rivers.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Note: This information represents typical data and is not a specification.

State and colour	Aerosol emitting colourless spray
Odour	Slight ether-like
Odour Threshold	No data available
Flammability	Not flammable
Flash point	Not applicable
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Explosive properties	Not explosive
Thermal decomposition	$> 290^{\circ}\text{C}$
Auto-ignition temperature	368°C
Oxidising properties	Non-oxidising
Solubility in water	0.373 g/l
Solubility in other solvents	Not determined
pH	Not applicable
Melting point/range	No data available
Boiling point/range	-19°C
Density	$1.17 \text{ g/cm}^3 @ 21.1^{\circ}\text{C}$
Vapour pressure	$10.998 \text{ hPa} @ 20^{\circ}\text{C}$
Relative vapour density	4 (air = 1)
Partition coefficient: n-octanol/water	Log Pow 1.6
Viscosity (kinematic)	No data available
Evaporation rate	No data available

9.2 Other information

No data available

Section 10: Stability and reactivity

10.1 Reactivity

Generally non-reactive

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

None if stored and used as directed

10.4 Conditions to avoid

Heat, flames and sparks

10.5 Incompatible materials

Alkali metals

10.6 Hazardous decomposition products

Fluorides. Fluorocarbons. Hydrogen fluoride.

Section 11: Toxicological information

11.1 Information on toxicological effects

trans-1,3,3,3-TETRAFLUOROPROP-1-ENE (R1234Ze)

Oral (LD50): Not applicable

Inhalation (LC50): > 207000 ppm (965 mg/l) (Rat) 4h

Dermal (LD50): No data available

Skin corrosion/irritation: Not classified.

Serious eye damage/eye irritation: No data available.

Respiratory or skin sensitisation: Not classified.

Repeated dose toxicity: No data available.

Carcinogenicity: Not classified.

Mutagenicity: Not classified.

Toxicity for reproduction: Not classified.

Specific target organ toxicity (STOT): No data available.

Further information: Exposure to high levels of vapour may cause headaches and dizziness.

Section 12: Ecological information

12.1 Toxicity

trans-1,3,3,3-TETRAFLUOROPROP-1-ENE (R1234Ze)

Daphnia EC50: > 160 mg/l (48h)

Carp NOEC: > 117 mg/l (96h)

Algae EC50: > 170 mg/l (72h)

12.2 Persistence and degradability

Not readily biodegradable

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Contains no PBT or vPvB substances

12.6 Other adverse effects

None expected

Section 13: Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local and national regulations. Contact licensed waste disposal company. Most aerosols can be recycled. Do not pierce or burn or use a cutting torch on the empty aerosol container.

Section 14: Transport information

General

The UN number for all aerosols is 1950. Aerosols packed in fibreboard cartons up to 30 kg gross weight, or shrink/stretch wrapped onto trays up to 20 kg gross weight may be transported as Limited Quantities, and should display the LQ symbol on the pack. The following information relates to all other aerosols not transported as Limited Quantities:

14.1 UN Number

ADR/RID/ADN; IMDG; ICAO: 1950

14.2 UN proper shipping name

AEROSOLS

14.3 Transport hazard class(es)

ADR/RID/ADN Class: 2, 5A

ADR/RID/ADN Class: Class 2, Gases

ADR Label No.: 2.2

IMDG Class: 2

ICAO Class/Division: 2

ICAO Subsidiary risk: 2.2

Transport labels: Gas under pressure

14.4 Packing group

ADR/RID/ADN; IMDG; ICAO: Not applicable for aerosols

14.5 Environmental hazards

Marine Pollutant: Not applicable for aerosols

14.6 Special precautions for user

EmS: F-D, S-U

Tunnel restriction code: (E)

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

Not applicable

Section 15: Regulatory information

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

UK Regulatory References

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2001 No.2677) with amendments.

EU Directives

Regulations (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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Statutory Instruments

The Chemicals (Hazard information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Guidance Notes

Health and Safety Executive Workplace Exposure Limits EH40.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been performed on this product.

Section 16: Other information

Hazard statements in full:

H229 Pressurised container: may burst if heated.

H280 Contains gas under pressure; may explode if heated.

The responsibility to ensure safe working conditions within the workplace remains with the user. The information on this SDS is given as a guide to the precautions required to maintain a safe work environment. This product is for professional use only. Not for sale or resale to the general public. Use in applications other than those described above may give rise to risks not covered by the information on this SDS. The physical and chemical properties on this SDS are typical properties and are not a specification. Please report any errors.