



Section 1. Product and Company Identification.

1.1 Model Number; DL12 v1 DL13 v1 DL14 v1 DL15 v1
1.2 Description; Portable Compressor (inc Dual Zone) Fridge Freezer/Cool Box for Car/Camping/Travel with LED Display
 Refrigerant R-1234yf.
 32 grams.

1.3 Manufacturer;

Sealey Group.
 Kempson Way,
 Bury St. Edmunds,
 Suffolk.
 IP32 7AR

1.4 Emergency telephone number; 44 (0) 1284 757 500 (Office Hours)

Date of source compilation; 11/12/2019.

Section 2. Hazards Identification.

No applicable to Model Number stated in 1.1 with Description stated in 1.2.

Section 3. Substances.

3.1 Chemical Name (substance)	3.1 CAS No.	3.2 Concentration Volume	Classification	
			Hazard Class & Category Code	Hazard Statements ¹
2,3,3,3-Tetrafluoroprop-1-ene	754-12-1	100 %	-	-

¹For full text of Statements, see Section 16.

Section 4. First Aid Measures.

4.1 Description of first aid measures

Inhalation

Remove from exposure, move to fresh air, and lie down. Keep patient warm and at rest. Artificial respiration and/or oxygen may be necessary. Consult a physician.

Skin Contact

Rapid evaporation of liquid may cause frostbite. Take off all contaminated clothing immediately if not stuck to the skin. Flush area with lukewarm water. Do not use hot water. If frostbite has occurred call a physician.

Eye Contact

Rapid evaporation of liquid in contact with the eye will damage it. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Ingestion

Unlikely route of exposure.

Product is a gas, refer to Inhalation.

If conscious, drink plenty of water.

Seek medical attention.

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

No data available.

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

No data available.

Section 5. Fire Fighting Measures.

5.1. Extinguishing media

Water spray, alcohol resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Decomposition products; hydrogen fluoride, carbonyl halides, carbon monoxide, carbon dioxide.

5.3. Advice for fire-fighters

Vapours are heavier than air. Will cause suffocation.

Vapours may travel away from area before igniting / flashing back to ignition source.

Section 6. Accidental Release Measures.

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area.

Ventilate area.

Prevent / remove sources of ignition.

6.2. Environmental precautions

Vapours are heavier than air. Will cause suffocation.

Vapours may travel away from area before igniting / flashing back to ignition source.

6.3. Methods and material for containment and cleaning up

No data available.

6.4. Reference to other sections

See Section 7 for information on Safe Handling

See Section 8 for information of Personal Protective Equipment.

See Section 13 for information on disposal.

Section 7. Handling and Storage.

7.1. Precautions for safe handling

Not applicable to Model Number identified in 1.1 with Description stated in 1.2

7.2. Conditions for safe storage, including any incompatibilities

Do not allow temperature to exceed 50 °C.

7.3. Specific end use(s)

Intended for use as the refrigerant for the Model Number identified in 1.1 with Description stated in 1.2.

Section 8. Exposure Controls/Personal Protection.

8.1. Control parameters

Not required for Model Number identified in 1.1 with Description stated in 1.2. during normal use.

In case of leaking refrigerant gas;

Use local exhaust to prevent gas accumulating.

Ventilate area.

See Section 6 Accidental Release measures

Section 9. Physical and Chemical Properties.

9.1. Information on basic physical and chemical properties

The following information is not a technical specification or sales specification.

(a) Appearance:	Liquefied gas. Colourless.
(b) Odour:	Slight.
(c) Odour threshold;	No data available.
(d) pH:	Not applicable, product is a gas.
(e) Melting point;	Not applicable, product is a gas.
(f) Initial boiling point;	-29.4 °C
(g) Flash point;	Not applicable, product is a gas.
(h) Evaporation rate;	Not applicable, product is a gas.
(i) Flammability (gas);	
(j) Lower flammability limit	6.2 %
Upper flammability limits;	12.3 %
	Method; ASTM E681-04
(k) Vapour pressure;	6.067 hPa at 21.1 °C
	14.203 hPa at 54.4 °C
(l) Vapour density;	4
(m) Relative density;	Specific Gravity not applicable.
(n) Solubility(ies);	Water solubility; 198.2 mg/l at 24 °C
(o) Partition coefficient: n-octanol/water;	log Pow; 2.15
(p) Auto-ignition temperature;	405 °C
(q) Decomposition temperature;	No data available.
(r) Viscosity;	Not applicable, product is a gas.
(s) Explosive properties;	No data available.
(t) Oxidising properties.	Not expected.

9.2 Other information

Molecular weight 114 g/mol

Section 10. Stability and Reactivity.

10.1. Reactivity	No data available.
10.2. Chemical stability	Stable under normal conditions.
10.3. Possibility of hazardous reactions	Hazardous polymerisation will not occur.
10.4. Conditions to avoid	Heat. Sources of ignition. Sunlight. Temperatures exceeding 50 °C.
10.5. Incompatible materials	Alkali metals. Oxidizers. Aluminium, magnesium, zinc powders.
10.6. Hazardous decomposition products	No data available.

Section 11. Toxicological Information.

11.1. Information on toxicological effects

No data available.

Section 12. Ecological Information.

12.1. Toxicity

Toxicity to fish;

LC50: > 197 mg/l

Exposure time: 96 h

Species: *Cyprinus carpio* (Carp)

Method: OECD Test Guideline 203

Note: No demonstrable toxic effect in saturated solution.

LC50: 10 - 100 mg/l

Species: not specified

Method: The guidelines for the testing of chemicals 203: fish acute toxicity test

Toxicity to daphnia and other aquatic invertebrates;

EC50: > 83 mg/l

Exposure time: 48 h

Species: *Daphnia magna* (Water flea)

Toxicity to algae;

EC50: > 100 mg/l

Species: *Scenedesmus capricornutum* (fresh water algae)

12.2. Persistence and degradability

Not applicable.

12.3. Bioaccumulative potential

Due to the distribution coefficient-octanol/water, accumulation in organisms not expected.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

Not considered to be persistent.

12.6. Other adverse effects

No data available.

Section 13. Disposal Considerations.

13.1. Waste treatment methods

Dispose of in accordance with local authority regulations.

Section 14. Transport Information.

ADR. International Carriage of Dangerous Goods by Road.

14.1. UN number	UN 3358
14.2. Name and Description	Refrigerating machines containing flammable, non-toxic, liquefied gas
14.3. Class	2
14.4. Packing group	-
14.5. Environmental hazards	Does not present an environmental hazard.
14.6. Special precautions for user	No special precautions necessary.

Special Provision 291

Refrigerating machines and refrigerating machine components are not subject to the requirements of ADR if they contain less than 12 kg of gas.

IATA. International Air Transport Association.

14.1. UN number	UN 3358
14.2. UN Proper Shipping Name/Description	Refrigerating machines containing flammable, non-toxic, liquefied gas
14.3. Class or Division	2.1
14.4. Packing group	-
14.5. Environmental hazards	Does not present an environmental hazard.
14.6. Special precautions for user	No special precautions necessary.

Special Provision A103

Refrigerating machines and refrigerating machine components are considered not subject to these Regulations if containing less than 100 g of flammable, non-toxic, liquefied gas.

IMDG. International Maritime Dangerous Goods.

14.1. UN number	UN 3358
14.2. UN proper shipping name	Refrigerating machines containing flammable, non-toxic, liquefied gas
14.3. Class	2.1
14.4. Packing group	-
14.5. Environmental hazards	Does not present an environmental hazard.
14.6. Special precautions for user	No special precautions necessary.
14.7. Transport in bulk – Maritime only.	Bulk transport is not applicable to this product

Special Provision 291

Refrigerating machines and refrigerating machine components are not subject to the provisions of this Code if they contain less than 12 kg of gas.



Section 15. Regulatory Information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available.

15.2. Chemical safety assessment
No data available.

Section 16. Additional Information.

Full text of Phrases and Statements used in Section 3;

Not applicable.

The above information is believed to be accurate and represents the best information currently available.

No warranty is expressed or implied by the above information.

We assume no liability resulting from use of the above information.

The end user should conduct their own investigations to determine the suitability of the above information for their particular purpose.

Issue level	Date	Revisions
1	23/02/20	First issue.

End of Safety Data Sheet.