

SAFETY DATA SHEET

Revision date 12-Feb-2025

Revision Number 1

1. Identification

Product identifier

Product Name LeakFinder R-134a with Dye and Sealant

Other means of identification

Product Code(s) LF134

UN number or ID number UN3159

Synonyms LF134H

Recommended use of the chemical and restrictions on use

Recommended use Leak Detection Seal refrigerant leaks in air conditioning and refrigeration systems
Refrigerant

Restrictions on use No information available

Details of the supplier of the safety data sheet

Manufacturer

Spectronics Corporation
265 Spagnoli Road
Melville, NY 11747
USA

E-mail address sds@spectroline.com

Emergency telephone number

Emergency Telephone US & Canada: 800-424-9300 (24 HOURS CHEMTREC)
Outside US & Canada: +1 703-741-5970 (24 HOURS CHEMTREC)

2. Hazard(s) identification

Classification

Gases under pressure	Liquefied gas
Simple asphyxiants	Yes

Hazards not otherwise classified (HNOC)

Contact with product may cause frostbite

Label elements

Warning

Hazard statements

Contains gas under pressure; may explode if heated
May displace oxygen and cause rapid suffocation

**Appearance** Liquefied gas**Physical state** Liquid**Odor** Slight**Precautionary Statements - Storage**

Protect from sunlight. Store in a well-ventilated place

Other information

No information available.

3. Composition/information on ingredients**Substance**

Not applicable.

Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures**Description of first aid measures**

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
Ingestion	Rinse mouth.

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media	DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.
Specific hazards arising from the chemical	Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated. Ruptured cylinders may rocket.
Explosion data	
Sensitivity to mechanical impact	Yes.
Sensitivity to static discharge	None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Contents under pressure. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling	Contents under pressure. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight.
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8. Exposure controls/personal protection

Control parameters

Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
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Individual protection measures, such as personal protective equipment

Eye/face protection	No special protective equipment required.
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Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquefied gas
Color	light green
Odor	Slight
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	-108 °C / -162.4 °F	None known
Initial boiling point and boiling range	-26.22 °C / -15.2 °F	None known
Flash point	Does Not Flash	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	569 kPa	@ 20 °C
Relative vapor density	No data available	3.6 (air = 1)
Relative density	1.22	None known
Water solubility	Insoluble	None known
Solubility(ies)	Insoluble in water	None known
Partition coefficient	No data available	None known
Autoignition temperature	> 743 °C / 1369.4 °F	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC content	No information available
Liquid Density	No information available
Bulk density	No information available

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Excessive heat.
Incompatible materials	None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	5,035.20 mg/kg
ATEmix (dermal)	99,999.00 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-dust/mist)	99,999.00 mg/l
ATEmix (inhalation-vapor)	99,999.00 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Other adverse effects No information available.

Interactive effects No information available.

12. Ecological information

Ecotoxicity

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Other adverse effects No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. Transport information

DOT

UN number or ID number	UN3159
Proper shipping name	1,1,1,2-Tetrafluoroethane
Transport hazard class(es)	2.2
Special Provisions	T50
DOT Marine Pollutant	NP
Description	UN3159, 1,1,1,2-Tetrafluoroethane, 2.2
Emergency Response Guide Number	126

TDG

UN number or ID number	UN3159
UN proper shipping name	Refrigerant gas R 134a
Transport hazard class(es)	2.2
Description	UN3159, Refrigerant gas R 134a, 2.2

MEX

UN number or ID number	UN3159
UN proper shipping name	1,1,1,2-Tetrafluoroethane
Transport hazard class(es)	2.2
Description	UN3159, 1,1,1,2-Tetrafluoroethane, 2.2

ICAO (air)

UN number or ID number	UN3159
UN proper shipping name	1,1,1,2-Tetrafluoroethane
Transport hazard class(es)	2.2
Description	UN3159, 1,1,1,2-Tetrafluoroethane, 2.2

IATA

UN number or ID number	UN3159
UN proper shipping name	1,1,1,2-Tetrafluoroethane
Transport hazard class(es)	2.2
Description	UN3159, 1,1,1,2-Tetrafluoroethane, 2.2
ERG Code	2L

IMDG

UN number or ID number	UN3159
UN proper shipping name	1,1,1,2-Tetrafluoroethane
Transport hazard class(es)	2.2
EmS-No.	F-C, S-V
Marine pollutant	NP
Description	UN3159, 1,1,1,2-Tetrafluoroethane, 2.2, (0°C c.c.)

RID

UN number or ID number	UN3159
UN proper shipping name	1,1,1,2-Tetrafluoroethane
Transport hazard class(es)	2.2
Classification code	2A
Description	UN3159, 1,1,1,2-Tetrafluoroethane, 2.2

ADR

UN number or ID number	UN3159
UN proper shipping name	1,1,1,2-Tetrafluoroethane
Transport hazard class(es)	2.2
Classification code	2A
Tunnel restriction code	(C/E)
Special Provisions	662
Description	UN3159, 1,1,1,2-Tetrafluoroethane, 2.2, (C/E)

ADN

UN number or ID number	UN3159
UN proper shipping name	1,1,1,2-Tetrafluoroethane
Transport hazard class(es)	2.2
Classification code	2A
Special Provisions	662
Description	UN3159, 1,1,1,2-Tetrafluoroethane, 2.2
Equipment Requirements	PP

15. Regulatory information

International Inventories

TSCA	Complies.
DSL/NDL	Complies.
EINECS/ELINCS	Complies.
ENCS	Complies.
IECSC	Complies.
KECI	Complies.
PICCS	Does not comply.
AIIC	Complies.
NZIoC	Complies.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

<u>NFPA</u>	Health hazards 0	Flammability 1	Instability 0	Special hazards -
<u>HMIS</u>	Health hazards 0	Flammability 1	Physical hazards 0	Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Revision date 12-Feb-2025

Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

End of Safety Data Sheet