

Safety Data Sheet

1,1,1,2-Tetrafluoroethane (R 134a)

Creation date: 19.1.2017

Revision date: 21.04.2018

Version 2

UK/E SDS No:4
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1 IDENTIFICATION OF THE SUBSTANCE/ PREPARATION OF THE COMPANY

Product Name

1,1,1,2-Tetrafluoroethene (R 134a)

Trade Name

Icecap

EC No (from EINECS):

CAS No: 811-97-2

Index-Nr.

Chemical Formula CF₃CH₂F

Reach Registration Number

N/A. Does not meet the minimum volume threshold.

Known uses

Refrigerant.

Company Identification

Armarge Ltd 17-19 Park Street Lytham Lancashire FY8 5LU

Email Address help@armarge.com

Emergency Telephone Number +44 (0) 7802715094

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification acc. to regulation (EC) No 1272/2008/EC (CLP/GHS)

Press. Gas (Liquefied gas) – Contains gas under pressure: may explode if heated. P410+403 Protect from sunlight.

Classification acc. to directive 67/548/EEC & 1999/45/EC

This substance is not considered dangerous according to the directive.

Asphyxiant in high concentrations

Risk advice to man and the environment

Liquefied gas

Contact with liquid may cause cold burns/frost bite.

-Label Elements

Labelling Pictograms



-Signal Word

Warning

Hazard Statements

H280 Contains gas under pressure; may explode if heated.

EIGA-As Asphyxiant in high concentrations.

-Precautionary Statements

Precautionary Statement Prevention

Rapid evaporation of the liquid may cause frostbite. Vapour is heavier than air and can cause suffocation.

Precautionary Statement Reaction

None

Precautionary Statement Storage

P403 Store in a well-ventilated place. Do not store long term in direct sunlight.

Precautionary Statement Disposal

Do not incinerate.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation: Substance.

Components/impurities

1,1,1,2-Tetrafluoroethane (R 134a)

CAS No: 811-97-2

Index-Nr.

REACH Registration number:

Not available.

Contains no other components or impurities which will influence the classification of the product.

4 FIRST AID MEASURES

Inhalation

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Remove victim to uncontaminated area. Keep victim warm and rested. Artificial respiration and/or oxygen may be required. Call a doctor.

Skin contact

Low exposure to liquid may cause redness and pain. High exposure to the liquid will cause frostbite. Flush the area with lukewarm water. Do not use hot water. If frostbite has occurred seek medical attention.

Eye contact

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

Ingestion

Ingestion is not considered a potential route of exposure.

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5 FIRE FIGHTING MEASURES

This product is not flammable (ASHRAE 34)

Specific hazards

Exposure may cause containers to rupture/explode. Non-flammable.

Hazardous combustion products

If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition: Hydrogen Fluoride.

Suitable extinguishing media

All known extinguishants can be used.

Specific methods

If possible, stop flow of product. Move container away or cool with water from a protected position.

Special protective equipment for fire fighters

Use self-contained breathing apparatus and chemically protective clothing.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions

Evacuate personnel to a safe area.

Ventilate area.

Environmental precautions

Prevent from entering sewers, basements, or any place where an accumulation can be dangerous.

Clean up method

Material evaporates.

7 HANDLING AND STORAGE

Handling

Avoid breathing vapours or mist.

Avoid contact with skin and clothing.

Provide sufficient air exchange.

No specific measures against fire are required.

Storage

Store in a cool, dry, well ventilated place.

Temperature should not exceed 50C.

8 EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure limit value

UK	8hour TWA	15 min STEL
	1000 ppm	-
	(4240 mg/m3)	

Ensure adequate ventilation, especially in confined areas.

9 PHYSICAL AND CHEMICAL PROPERTIES

General information.

Appearance/colour: Colourless gas.

Odour: Ethereal

Important information on environment, health and safety.

Molecular weight: 102g/mol

Melting point: -101C

Boiling point: -26C

Critical temperature: 100.6C

Flammability Range: Non-Flammable

Relative density, gas: Heavier than air

Vapour Pressure 20C: 5.7 bar

Solubility mg/l water: 1930 mg/l

Other data

Gas/vapour heavier than air. May accumulate in confined spaces, particularly below ground level.

10 STABILITY AND REACTIVITY

Stability and reactivity

May react violently with alkaline-earth and alkali metals.

11 TOXICOLOGICAL INFORMATION

Acute toxicity

No known toxicological effects from this product.

12 ECOLOGICAL INFORMATION

GENERAL

No known ecological damage caused by this product.

When discharged may contribute to the greenhouse effect.

13 DISPOSAL CONSIDERATIONS

General

Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required.

14 TRANSPORT INFORMATION

ADR/RID

Class	2	Classification code	2A
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UN number and proper shipping name

UN 3159 1,1,1,2-Tetrafluoroethane Refrigerant R134a

Labels	2.2	Hazard number	20
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IMDG

Class	2.2
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UN number and proper shipping name

UN 3159 1,1,1,2-Tetrafluoroethane

Labels	2.2
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Packing instructions	P200
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Other transport information

Avoid transportation where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.

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15 REGULATORY INFORMATION

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

16 OTHER INFORMATION

Ensure all national/local regulations are observed.

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