

R 134A

SAFETY DATA SHEET

The contents and format of this folder are in accordance with the European Commission Directive CE 2001/58/CE

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

1.1. Product identifier

Ref. nr : REACH Prereg 05-2118668481-35-0000

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

Use : For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : **Magneti Marelli Aftermarket Sp. z o.o.**
Plac pod Lipami 5, 40-476 Katowice
e-mail: checkstar@magnetimarelli.com
www.magnetimarelli-checkstar.pl

1.4. Emergency telephone number : +48 32 60 36 142

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Hazard Class and Category
Code Regulation EC 1272/2008 (CLP)

• Physical hazards : Gases under pressure - Liquefied gas - Warning - (CLP : Press. Gas) - H280

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Labelling Regulation EC 1272/2008 (CLP)

• Hazard pictograms



• Hazard pictograms code : SGH04
• Signal words : Warning
• Hazard statements : H280 - Contains gas under pressure; may explode if heated.

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SECTION 2 Hazards identification (continued)

• Pictograms (Precautionary statements)



• Precautionary statements

- Storage

: P403 - Store in well-ventilated place.
P410 - Protect from sunlight.

2.3. Other hazards

None under normal conditions.

SECTION 3 Composition/information on ingredients

Manufacture formula

: CF3CH2F

Components

: This product is not hazardous.

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

:

100 %

811-97-2

212-377-0

—

provisNot classified. (DSD)

Impurities

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

SECTION 4 First aid measures

4.1. Description of first aid measures

- General information

: In the event of faintness, seek medical advice.

- Inhalation

: Assure fresh air breathing.
If breathing is difficult, give oxygen.

- Skin contact

: In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.

- Eye contact

: Continue to rinse eye with clean water for 20-30 minutes, retracting eyelids often.

- Ingestion

: Ingestion unlikely.

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

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

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SECTION 5 Fire-fighting measures

5.1. Extinguishing media

- Suitable extinguishing media : All extinguishing media can be used.

5.2. Special hazards arising from the substance or mixture

Specific hazards : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
High temperature may liberate toxic gases.

5.3. Advice for fire-fighters

Special protective equipment for fire fighters : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.2. Environmental precautions

6.3. Methods and material for containment and cleaning up

Clean up methods : Evacuate and limit access.
Ventilate confined spaces before entering.

6.4. Reference to other sections

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Handling : Ensure cylinder valve is closed and not leaking after each use.
Securely chain cylinders when in use and protect against physical damage.
Where contact with eyes or skin is likely, wear suitable protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage :
Keep container in a well-ventilated place.

7.3. Specific end use(s)

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SECTION 8 Exposure controls/personal protection

8.1. Control parameters

- Personal protection** : Avoid all unnecessary exposure.
- **Respiratory protection** : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.
- **Eye protection** : Safety glasses.
- **Hand protection** : Insulated impervious plastic or neoprene coated gloves and other clothing should be worn to protect hands and other skin areas potentially exposed to cold liquid or gas.
- **Others** : Wear impervious rubber safety shoes.

8.2. Occupational Exposure Limits

Occupational Exposure Limits : 1,1,1,2-Tetrafluoroethane (R 134a) : OEL (UK)-LTEL [ppm] : 1000
1,1,1,2-Tetrafluoroethane (R 134a) : NGV - [ppm] : 500
1,1,1,2-Tetrafluoroethane (R 134a) : NGV - [mg/m³] : 2000
1,1,1,2-Tetrafluoroethane (R 134a) : KTV - [ppm] : 750
1,1,1,2-Tetrafluoroethane (R 134a) : KTV - [mg/m³] : 3000
1,1,1,2-Tetrafluoroethane (R 134a) : MAK (AU) Tagesmittelwert (ml/m³) : 1000
1,1,1,2-Tetrafluoroethane (R 134a) : MAK (AU) Tagesmittelwert (mg/m³) : 4200
1,1,1,2-Tetrafluoroethane (R 134a) : MAK (AU) Kurzzeitwerte (mg/m³) : 16800
1,1,1,2-Tetrafluoroethane (R 134a) : MAK (AU) Kurzzeitwerte (ml/m³) : 4000 LTEL: 1000 ppm

General : Ensure adequate air ventilation.

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

- **Appearance**
- Physical state at 20 °C** : Gas.
- Colour** : Colourless.
- **Odour**
- Odour** : Barely perceptible.
- **Odour threshold**
 - **pH**

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SECTION 9 Physical and chemical properties (continued)

- Melting point / Freezing point
- Initial boiling point - boiling range
- Boiling point [°C] : -26.5
- Flash point
- Flash point [°C] : Not applicable.
- Evaporation rate
- Flammability
- Explosion limits (lower - upper)
- Explosion limits - lower [%] : Not applicable.
- Explosion limits - upper [%] : Not applicable.
- Vapour pressure
- Vapour pressure [20°C] : 96 psia
- Vapour density
- Relative density
- Density : 3.18 (aria 1)
- Solubility
- Solubility in water : 0.15%
- Partition coefficient : n-octanol / water
- Auto-ignition temperature
- Auto-ignition temperature [°C] : Not applicable.
- Thermal decomposition
- Viscosity
- Explosive Properties
- Oxidising properties

SECTION 10 Stability and reactivity

10.1. Reactivity

Stability and reactivity : Stable under normal conditions.

10.2. Chemical stability

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

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SECTION 10 Stability and reactivity (continued)

Conditions to avoid : Avoid :
Overheating.

10.5. Incompatible materials

Materials to avoid : Alkali.

10.6. Hazardous decomposition products

Hazardous decomposition products : On exposure to high temperature, may decompose, releasing toxic gases.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Rat oral LD50 [mg/kg] : No data available.

Chronic toxicity : May produce irregular heart beat and nervous symptoms.

SECTION 12 Ecological information

12.1. Toxicity

LC50-96 Hour - fish [mg/l] : No data available.

12.2. Persistence - degradability

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

Global warming potential [CO₂=1] : 1300 When discharged in large quantities may contribute to the greenhouse effect.

SECTION 13 Disposal considerations

13.1. Waste treatment methods

General : Avoid release to the environment.
Comply with local regulations for disposal.
Refer to manufacturer or supplier for information on recovery or recycling.

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SECTION 14 Transport information

14.1. UN Number

UN No. : 3159

14.2. Proper shipping name

14.3. Transport Hazard
Classification

19 Labelling ADR



ADR/RID

: Group : A
Class : 2

H.I. nr

: 20

Proper shipping name

: 1,1,1,2-TETRAFLUOROETHANE (REFRIGERANT GAS R 134A)

14.4. Packing group

14.5. Environmental hazards

14.6. Special precautions for
user14.7. Bulk transport - annex II
Marpol 73/78 - IBC

SECTION 15 Regulatory information

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

Ensure all national/local regulations are observed.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006.

Directive 2006/121/EC of the European Parliament and of the Council of 18 December 2006.

EUROPEAN COMMUNITIES

EC Classification

: 1,1,1,2-Tetrafluoroethane (R 134a)
CAS No :000811-97-2
EC No :212-377-0
Annex No :---

EC Labelling

Symbol(s) : None.

R Phrase(s) : None.

S Phrase(s) : None.

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SECTION 15 Regulatory information (continued)

Other : None.

15.2. Chemical Safety Assessment

SECTION 16 Other information

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