



MATERIAL SAFETY DATA SHEET (MSDS) R407 C

(Please ensure that this MSDS is received by the appropriate person)

Ref. no.: R07 C

DATE: March 2019

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name R407C
Chemical Formula CH₂F₂, CF₃CHF₂, CH₂FCF₃
Trade Name R407A
Company Identification Les Gaz Industriels Ltd
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2 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family: Refrigerant
Components/Impurities: Contains the following components:
Substance Name CAS no.
25% Pentafluoroethane 354-33-6
52% 1,2,1,2-Tetrafluoroethane(R134a) 811-97-2
23% Difluoroethane(R32) 75-10-5
Chemical Abstract Service Number (CAS No.) 7727-37-9
United Nations Number (UN) 3340
Hazchem Warning 2.2 Non- flammable gases

3 HAZARDS IDENTIFICATION

Main Hazards: Skin irritation would result from a defatting action on tissue. Liquid contact with the skin could cause frostbite. Liquid contact with the eyes can cause severe irritation and frostbite. Mist may irritate.

Adverse Health Effects: R407C is low in acute toxicity in animals. When Oxygen levels in air are reduced to 12-14% by displacement, symptoms of asphyxiation, loss of coordination, increased pulse rate and deeper respiration will occur. At high levels, cardiac arrhythmia may occur.

4 FIRST AID MEASURES

Skin/Eye Contact: Immediately flush with large quantities of tepid water for at least 15 minutes. In case of frostbite, spray with tepid water for at least 15 minutes. Apply a sterile dressing, and obtain medical assistance.

Ingestion or Swallowing: Ingestion is not considered a potential route of exposure

Inhalation: In low concentration may cause narcotic effects. Symptoms may include loss of mobility/consciousness. Remove victim to fresh air wearing self-contained breathing apparatus. Apply artificial respiration if victim is not breathing. Keep victim warm and rested. Obtain medical assistance.

5 FIRE FIGHTING MEASURES

Special hazards: Exposure to fire may cause containers or vessels to rupture/explode. R407C is non-flammable.

Hazardous Combustion products: If involved in fire the following toxic and/or corrosive fumes may be produced by thermal decomposition:

Carbonyl fluoride
Carbon monoxide
Hydrogen fluoride

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

Specific Methods: If possible stop flow of product. Move away from the container and cool with water from a protected position

Special protective equipment for firefighters: Use chemically protective clothing. In confined space use self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Evacuate the area. Wear self contained breathing apparatus when entering the area unless atmosphere is approved to be safe. Ensure adequate ventilation.

Environmental Protection: Try to stop release. Prevent from entering sewers, basements and work pits, or any place where its accumulation can be dangerous.

Clean up methods: Ventilate area.

7 HANDLING AND STORAGE

Suck back of water into the container must be prevented. Do not allow feedback into the container. Use only proper specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Refer to supplier's container handling instructions. Keep container below 50°C in a well ventilated space.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Hazards: Avoid any areas where spillage has taken place unless entering with self contained breathing apparatus. Only enter once testing has proved the atmosphere to be safe.

Personal Protection: Ensure adequate ventilation. Do not smoke while handling the product. Protect eyes, face and skin from liquid splashes.

9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DATA

Chemical Symbol CH₂F₂, CF₃CHF₂, CH₂FCF₃
Molecular Weight 86.2
Boiling point @ 101,325 kPa -43.9°C
Relative density, liquid (water =1) 1.2
Relative density, gas (Air = 1) 3
Vapour Pressure 20°C 10.2 bar (a)
Odour Ethereal
Other data Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level

10 STABILITY AND REACTIVITY

Stability And Reactivity: Stable under normal conditions. May react with aluminium. Thermal decomposition yields toxic products which can be corrosive in the presence of moisture

Incompatibilities: Under specific conditions: e.g. very high temperatures and/or appropriate pressures – Freshly abraded aluminium surfaces may cause strong exothermic reaction. Chemically active metals: potassium, calcium, powdered aluminium, magnesium and zinc

Hazardous Decomposition Products: Halogens, halogen acids and possibly carbonyl halides.

11 TOXICOLOGICAL INFORMATION

General: May produce irregular heart beat and nervous symptoms

For further information see Section 3. (Adverse Health Effects).

12 ECOLOGICAL INFORMATION

General: Not covered by the "Montreal Protocol". When discharged in large quantities may contribute to greenhouse effect.

Global warming factor: 1600 (CO₂ =1)



LES GAZ INDUSTRIELS LTD.

UNE VALEUR SÛRE

Est. 1952

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13 DISPOSAL CONSIDERATIONS

Disposal Methods Avoid discharge to the environment. Do not discharge to anyplace where accumulation could be dangerous. Refer to suppliers waste gas recovery programme. Contact supplier if guidance is required.

14 TRANSPORT INFORMATION

ROAD TRANSPORTATION

UN No. 3340
ERG Code 126
Hazchem warning 2.2 Non-flammable gas

SEA TRANSPORTATION

IMDG 3340
Class 2.2
Label Non-flammable gas

AIR TRANSPORTATION

ICAO/IATA Code 3340
Class 2.2

15 REGULATORY INFORMATION

EEC Hazard class Non flammable gas
National legislation OHSact and Regulations 85 of 1993
SABS 10234 and its supplement

16 OTHER INFORMATION

Other Special Considerations: No known data.

17 EXCLUSION OF LIABILITY

Information contained in this publication is accurate at the date of publication. The company does not accept liability arising from the use of this information, or the use, application, adaptation or process of any products described herein.