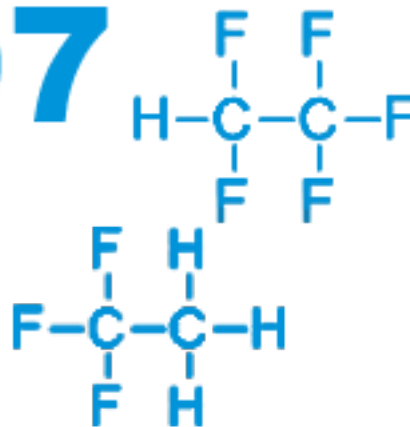


R507

50 % R125
50 % R143a



Refrigerant R507

Safety Instruction (Translation from the original language)
O_764011_5

COPYRIGHT

All Rights reserved.

No part of this documentation may be copied or published by means of printing, photocopying, microfilm or otherwise without prior written consent of

- GEA Refrigeration Germany GmbH

herein after referred to as the **manufacturer**. This restriction also applies to the drawings and diagrams contained in the documentation.

LEGAL NOTICE

This documentation has been written in all conscience. However, the manufacturer cannot be held responsible, neither for any errors occurring in this documentation nor for their consequences.

SYMBOLS USED



Danger

Stands for an immediate danger leading to severe physical injuries or death.

▶ Description for avoiding the danger.



Warning!

Stands for a potentially dangerous situation leading to severe physical injuries or death.

▶ Description for avoiding the dangerous situation.



Caution!

Stands for a potentially dangerous situation which could lead to minor physical injuries or damage to property.

▶ Description for avoiding the dangerous situation.

Notice

Stands for important information that must be observed for the intended use and function of the product.

▶ Description of the required action for the intended function of the product.

TABLE OF CONTENTS

1	Safety Instructions R507 refrigerant	7
1.1	R507 specification	7
1.2	Personal protective equipment	8
1.3	Emergency equipment	8
1.4	First aid when using R507, immediate measures	8
1.5	Eye injuries	9
1.6	Skin contact	9
1.7	Injuries from swallowing liquid refrigerant	9

1 Safety Instructions R507 refrigerant

1.1 R507 specification

Composition

azeotropic HFC mixture:

pentafluoroethane CF_3CHF_2 (R-125) 50 mass-%

1,1,1-trifluoroethane CF_3CH_3 (R-143a) 50 mass-%

Molecular mass

98.8 kg/kmol

Colour

colorless

Odour

ether-like

Gas density

- approx. 5.2 kg/m^3 at $25 \text{ }^\circ\text{C}$
- heavier than air
- collects at floor level

Handling

Ensure good room ventilation at floor level as well.

Dangerous reactions

When overheated, for example in contact with welding flame: Thermal decomposition into poisonous and caustic products. **Do not smoke!**

Classification group

L1 (The refrigerant is in gaseous form not flammable in any concentration in air.)

Safety group

A1 (no or only insignificant poisonous or caustic effect)

Toxicological details

Primary irritant effect on skin or eyes: Frostbite possible from splash of liquefied gas.

The product leads to asphyxiation at high concentrations. The increasing lack of oxygen is noticeable through sleepiness and difficulty in breathing. In addition the mucous membranes become irritated.

Environmental details

Not easily biodegradable. Do not allow into ground water, lakes and rivers or sewerage system.

Disposal information

Hazardous waste incineration by the manufacturer.

1.2 Personal protective equipment

Protective gloves and eye protection are to be provided for every person concerned with maintenance, repair and recovery and to be used by them.

A respirator with filter should always be used when welding or soldering is carried out in the presence of refrigerants. The filter insert should offer protection from the decomposition products.

An adequate ventilation must be carried out.

1.3 Emergency equipment

The following emergency equipment is to be provided in the case of a refrigeration plant with a refrigerant capacity of more than 200 kg of refrigerant and also when a special machinery room is available:

- respiratory protection equipment independent of the ambient air
- first-aid equipment
- emergency shower for eye rinsing.

The respiratory protection equipment must be suitable for that refrigerant. It must consist of at least two independent respirators.

First-aid equipment, medicine and special chemical preparations as well as protective coverings, etc. must be available and stored outside of the special machine room but near the entrance. Special attention should be given to medicines for the immediate treatment of eye injuries. Medicines and other chemical preparations are to be acquired only in consultation with specialists.

The water for eye rinsing must be regulated with a thermostat (mixed warm/cold water), in order to avoid cold shock to the injured person.

1.4 First aid when using R507, immediate measures

If the injured person is unconscious

- Call a doctor and an ambulance equipped with a respirator immediately.
- The injured person should be brought into a well-ventilated room or outdoors until the arrival of the ambulance, as long as this is safe. The injured person should be placed on his or her side.
- Inform the doctor that the injured person was exposed to the refrigerant R507. Preferably, the injured person should be given an appropriate label.
- Loosen the clothing around the chest in order to facilitate breathing.
- Mouth-to-mouth resuscitation is to be applied if required.
- Persons who have breathed in a large amount of fumes are to be treated as quickly as possible with oxygen by a knowledgeable person. In addition they should be kept as quiet as possible.
- Water or other fluids should never be administered except as ordered by the doctor.
- Do not administer adrenalin-ephedrin.

1.5 Eye injuries

- Do not rub the eyes.
- Remove contact lenses, if present.
- Lift the eyelid and rinse for at least 20 min. with copious amounts of water.
- Then take the injured person immediately to an eye specialist or accident hospital.

1.6 Skin contact

- Rinse the affected area for at least 20 min. with copious amounts of water, at the same time removing the clothing.
- Do not cover the affected skin areas with clothing, bandages or dressings, oil, etc.
- After rinsing take the injured person to a doctor or accident hospital as quickly as possible.

1.7 Injuries from swallowing liquid refrigerant

Give the injured person, as long as he or she is conscious, as much water or other warm drink as possible.

Notice

For more information see:

- ▶ prEN 378-1
 - ▶ prEN 378-3
 - ▶ Safety data sheet no. 87892, Höchst AG
-

We live our values.

Excellence · Passion · Integrity · Responsibility · GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

GEA Germany

GEA Refrigeration Germany GmbH

Holzhauser Strasse 165
13509 Berlin, Germany

Tel +49 (0)30 435 92 847
Fax +49 (0)30 435 92 777

www.gea.com/contact
www.gea.com

GEA North America Inc.

GEA Refrigeration North America, Inc

3475 Board Road
York, PA 17406, USA

Tel +1 717 767 6411
Fax +1 717 764 3627

www.gea.com/contact
www.gea.com

GEA Netherlands

GEA Refrigeration Netherlands N.V.

Parallelweg 25
5223 AL 's-Hertogenbosch,
Netherlands

Tel +31 (0)73 6203 911

www.gea.com/contact
www.gea.com