



# Refrigerant R-407C

## Safety Data Sheet GCI-018

Date of Issue: 01/01/2021 Revision date: 10/03/2021

### Section 1: Product and company Information

#### 1.1 Product Identifier

Trade Name : R-407C  
Substance/Mixture : CH2F2, CF3CHF2, CH2FCF3  
MSDS No : GCI-018

#### 1.2 Details of the supplier of the safety data sheet

Name : Globcorp International Co W.L.L  
Address : Shop No 52, Building 2527, Road 1535, Block  
115, Hidd, Kingdom of Bahrain  
Emergency number : +973-34026802/33701856/36487106

#### 1.2 Product Composition / Information of ingredients

Substance Name : R-404A

Components	CAS-No	Concentration (% w/w)
Difluoromethane (HFC-32)	75-10-5	23
Pentafluoroethane (HFC-125)	354-33-6	25
1,1,1,2-Tetrafluoroethane (HFC-134a)	811-97-2	52

### Section 2: Hazard Identification

Hazards identification : Liquefied gas  
May cause frostbite and may displace oxygen and cause suffocation. Contains gas under pressure, may explode if heated. Product may cause frostbite.

### Section 3: First Aid Measures

After Inhalation Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

After Skin contact The liquid may cause frostbite. If exposed to liquid, immediately warm frostbite area with warm water for at least 15 minutes.

After Eye contact Immediately flush eyes thoroughly with water for at least 15 minutes.



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After Ingestion

Ingestion is unlikely because of the physical properties and is not expected to be hazardous. Do not induce vomiting unless instructed to do so by a physician.

### Section 4: Firefighting Measures

Flammable class

Non-flammable.

Specific hazards

Contact with fire may cause containers to rupture or explode.

Hazardous thermal decomposition products

Decomposition products may include the following:

Carbon dioxide

Carbon monoxide

Halogenated compounds

Suitable extinguishing media

Use appropriate extinguishing media for surrounding fire.

Specific methods

Stop flow of product if safe to do so.

Special protective equipment

In confined space use self-contained breathing apparatus.

### Section 5: Handling and Storage

Storage

Keep container below 52°C in a well ventilated place. Maintain cylinders in an upright position and ensure it is firmly secured.

Handling

Use only proper specified equipment which is suitable for this product.

Refer to supplier's container handling instructions. Contact your gas supplier if in doubt.

### Section 6: Exposure controls / Personal protection

Personal protection

Ensure adequate ventilation.

**Exposure Controls:**

Difluoromethane

1000 ppm TWA (8hr)

Pentafluoroethane

1000 ppm TWA (8hr)

1,1,1,2-Tetrafluoroethane

1000 ppm TWA (8hr)



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### Section 7: Physical and Chemical properties

Physical state at 20°C	: Liquefied gas.
Color	: Colorless.
Odor	: Faint ethereal odor.
Molecular formula	: CH <sub>2</sub> F <sub>2</sub> , CH <sub>2</sub> FCF <sub>3</sub> , CF <sub>3</sub> CHF <sub>2</sub>
Molecular weight	: 86.2
Melting point [°C]	: -103
Boiling point [°C]	: -43.8
Critical temperature [°C]	: 86.4
Vapor pressure, 21°C	: 3.0
Relative density, 21°C	: 1.16 g/cm <sup>3</sup>
Saturated density, liquid (water=1)	: 1138 Kg/m <sup>3</sup> (25 °C)
Solubility in water [mg/l]	: Unknown

### Section 8: Stability and Reactivity

Stability and reactivity : Stable under normal conditions.

### Section 9: Toxicological Information

#### Acute Toxicity:

Product/Ingredient Name	Result	Species	Dose	Exposure
Difluoromethane	LC50 Inhalation Gas	Rat	3780 mg/m <sup>3</sup>	1 hour
	LC50 Inhalation Vapor	Rat	1890 g/m <sup>3</sup>	4 hours
Pentafluoroethane	LC50 Inhalation Vapor	Rat	2910 g/m <sup>3</sup>	4 hours
1,1,1,2-Tetrafluoroethane	LC50 Inhalation Vapor	Rat	1500 g/m <sup>3</sup>	4 hours

### Section 10: Disposal Considerations

General : Do not discharge into any place where its accumulation could be dangerous or fatal.



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### Section 11: Transport information

Transport document description	: UN3340, Refrigerant Gas R407C, 2.2
UN-NO (DOT)	: UN3340
Proper shipping name	: Refrigerant gas R407C
Hazard labels (DOT)	: 2.2 – Non-flammable gas



Other transport information	Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure that the vehicle driver is aware of the potential hazards of the load and knows what to do in case of an accident or emergency.
Before Transporting product containers	Ensure that containers are firmly secured. Ensure cylinder valve is closed and not leaking. Ensure valve outlet cap nut or plug is correctly fitted. Ensure valve protection device is correctly fitted. Ensure there is adequate ventilation. Compliance with applicable regulation.

### Section 12: Other Information

Ensure operators understand the oxygen enrichment.

Keep container in a well ventilated place.

Do not breathe the gas.

Ensure all national/local regulations are observed.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*