



Refrigerant R-410A

Safety Data Sheet GCI-016

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

Section 1: Product and company Information

1.1 Product Identifier

Trade Name	: R-410A
Formula	: CH ₂ F ₂ (50%) & CH ₂ CF ₃ (50%)
MSDS No	: GCI-016

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

1.3 Product Composition / Information of ingredients

Substance name	: R-410A
Contents	: Difluoromethane (CH ₂ F ₂) (50%) + Pentafluoroethane (CH ₂ CF ₃) (50%)

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.
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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.
After Ingestion	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe.



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Section 4: Firefighting Measures

Flammable class	Non-flammable.
Specific hazards	Contact with fire may cause containers to rupture or explode.
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.
Handling	Prevent suck back and back feed into the container. 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.
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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 ₂ F ₂ , CH ₂ CF ₃
Molecular weight	: 72.6
Melting point [°C]	: -155
Boiling point [°C]	: -48.5
Critical temperature [°C]	: 72.8



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Vapor pressure, 21°C	: 215.3 psia
Relative density, gas (air=1)	: 3.0
Relative density, liquid (water=1)	: 1.08 g/cm ³
Solubility in water [mg/l]	: unknown

Section 8: Stability and Reactivity

Stability and reactivity

Stable under normal conditions.

Any source of high temperature, such as lighted cigarettes, flames, hot spots or welding may yield toxic and/or corrosive decomposition products.

Section 9: Toxicological Information

Acute Toxicity:

Product/Ingredient Name	Result	Species	Dose	Exposure
Difluoromethane	LC50 Inhalation Gas	Rat	3780 mg/m ³	1 hour
	LC50 Inhalation Vapor	Rat	1890 g/m ³	4 hours
Pentafluoroethane	LC50 Inhalation Vapor	Rat	2910 g/m ³	4 hours

Section 10: Disposal Considerations

General

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

Section 11: Transport information

Transport document description

: UN3163, Liquefied N.O.S, Pentafluoroethane, Difluoromethane, 2.2

UN-NO (DOT)

: UN3163

Proper shipping name

: Liquefied N.O.S, Pentafluoroethane, Difluoromethane

Hazard labels (DOT)

: 2.2 – Non-flammable gas





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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.