

## SAFETY DATA SHEET C-GAS R410A

### Commission Regulation (EU) 2020/878 of 18 June 2020. According to Regulation (EC) No 1907/2006, Annex II, as amended. According to the REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577, as amended.

SECTION 1: Identification of the substance/mixture and of the company/undertaking		
1.1. Product identifier		
Product name	C-GAS R410A	
Chemical name	Difluoromethane and Pentafluoroethane mixtures	
1.2. Relevant identified uses of the substance or mixture and uses advised against		
Identified uses	Refrigerant.	
<i>1.3. Details of the supplier of the</i> Manufacturer/ Supplier	safety data sheet Cantas Chemical Industry And Commerce Inc. Çerkeşli Mahallesi, Gebze V (Kimya) İhtisas OSB, Fatma Börü Caddesi No:5/1 41455 Dilovası/ Kocaeli T el: 0212 910 1260 / (Monday - Friday, 8:30 am-5:30 pm) E-posta: info@cantaskimya.com	
1.4. Emergency telephone number		
Emergency telephone	Cantaş: +90 212 910 12 60	
SECTION 2: Hazards identification		
2.1. Classification of the substance or mixture		
Classification (SI 2019 No. 720)		
Physical hazards	Press. Gas (Liq.) - H280	
Health hazards	Not Classified	
Environmental hazards	Not Classified	
Additional information 2.2. Label elements	Classification (Regulation (EC) No. 1272/2008).	
Hazard pictograms		
Signal word	Warning	
Hazard statements	H280 Contains gas under pressure; may explode if heated.	
Precautionary statements	P410+P403 Protect from sunlight. Store in a well-ventilated place.	
2.3. Other hazards		

Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing. Misuse or intentional inhalation abuse may cause death without warning symptoms, due to cardiac effects Rapid evaporation of the product may cause frostbite. May displace oxygen and cause rapid suffocation



SECTION 3: Composition/information on ingredients		
3.2. Mixtures		
Pentafluoroethane	49.5-51.5%	
CAS number: 354-33-6	EC number: 206-557-8	
<b>Classification</b> Press. Gas (Liq.) - H280		
Difluoromethane	48.5 - 50.5%	
CAS number: 75-10-5	EC number: 200-839-4	
<b>Classification</b> Flam. Gas 1A - H220 Press. Gas (Liq.) - H280		
The full text for all hazard statements is displayed in Section 16.		
SECTION 4: First aid measures		
4.1. Description of first aid mea	isures	
General information	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.	
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.	
Ingestion	Rinse mouth thoroughly with water. Remove any dentures. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.	
Skin contact	Rinse with water. Get medical attention if symptoms are severe or persist after washing.	
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.	
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.	
4.2. Most important symptoms	and effects, both acute and delayed	
General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	May cause respiratory irritation.	
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur.	
Skin contact	No specific symptoms known.	



Eye contact	No specific symptoms known. May be slightly irritating to eyes.	
4.3. Indication of any immediate n	nedical attention and special treatment needed	
Notes for the doctor	Treat symptomatically.	
SECTION 5: Firefighting measure	S	
5.1. Extinguishing media		
Suitable extinguishing media	The product is not flammable. Extinguish with foam, carbon dioxide, dry powder or water fog. Use fire- extinguishing media suitable for the surrounding fire.	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.	
5.2. Special hazards arising from the substance or mixture		
Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up.	
Hazardous combustion products	Carbon monoxide (CO). Carbon dioxide (CO2).	
5.3. Advice for firefighters		
Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.	
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing will provide a basic level of protection for chemical incidents.	
SECTION 6: Accidental release m	ieasures	
6.1. Personal precautions, protect	tive equipment and emergency procedures	
Personal precautions	No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material.	
6.2. Environmental precautions		
Environmental precautions	Exposure to aquatic environment unlikely. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).	
6.3. Methods and material for containment and cleaning up		
	tainment and cleaning up	
Methods for cleaning up	tainment and cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.	
Methods for cleaning up 6.4. Reference to other sections	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in	



SECTION 7: Handling and storage			
7.1. Precautions for safe handling			
Usage precautions	Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Provide adequate ventilation.		
Advice on general occupational hygiene	Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.		
7.2. Conditions for safe storage, including any incompatibilities			
Storage precautions	Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep horizontal design tube/drum/tanks horizontal, vertical design tube/drum/tank upright. Protect containers from damage. Protect from sunlight. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.		
7.3. Specific end use(s)			
Specific end use(s)	The identified uses for this product are detailed in Section 1.2.		
SECTION 8: Exposure controls/Pe	ersonal protection		
8.1. Control parameters			
Occupational exposure limits			
Long-term exposure limit (8-hour	TWA): WEL 1000 ppm 4240 mg/m³		
Pentafluoroethane			
Long-term exposure limit (8-hour TWA): WEL 2000 ppm			
Difluoromethane			
Long-term exposure limit (8-hour TWA): WEL 1000 ppm 2200 mg/m³ WEL = Workplace Exposure Limit.			
DNEL	Consumer - Inhalation; Long term systemic effects: 2476 mg/m <sup>3</sup> Workers - Inhalation; Long term systemic effects: 13936 mg/m <sup>3</sup>		
	Pentafluoroethane (CAS: 354-33-6)		
DNEL	Workers - Inhalation; systemic effects: 16 444 mg/m <sup>3</sup> Consumer - Inhalation; systemic effects: 1753 mg/m <sup>3</sup>		
PNEC	- Fresh water; 0,1 mg/l - Water, Intermittent release; 1 mg/l - Sediment (Freshwater); 0,6 mg/l		



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#### Difluoromethane (CAS: 75-10-5)

DNEL

Workers - Inhalation; Long term systemic effects: 7035 mg/m<sup>3</sup> Consumer - Inhalation; Long term systemic effects: 750 mg/m<sup>3</sup>

PNEC

Fresh water; 0,142 mg/l Sediment (Freshwater); 0,534 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls	Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment that provides appropriate eye and face protection should be worn. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, wear gloves that are proven to be impervious to the chemical and resist degradation. To protect hands against cold burns, gloves must comply with the EN 511 standard. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
Hygiene measures	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'UKCA'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges suitable for intended use should be used. Full face mask respirators with replaceable filter cartridges suitable for intended use should be used. Half mask and quarter mask respirators with replaceable filter cartridges suitable for intended use should be used.
Environmental exposure controls	Keep container tightly sealed when not in use.



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#### SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties		
Appearance	Liquefied gas	
Colour	Colourless.	
Odour	Mild. Ether.	
Odour threshold	No information available.	
рН	No information available.	
Melting point	-43.9°C	
Initial boiling point and range	No information available.	
Flash point	No information available.	
Evaporation rate	No information available.	
Flammability (solid, gas)	No information available.	
Upper/lower flammability or explosive limits	No information available.	
Vapour pressure	1174 @ 25°C	
Vapour density	3.0	
Relative density	1.14	
Solubility(ies)	No information available.	
Auto-ignition temperature	685°C	
Decomposition Temperature	No information available.	
Viscosity	No information available.	
Explosive properties	No information available.	
Oxidising properties	Not available.	
Particle characteristics	Not applicable.	
9.2. Other information		
Other information	None.	

#### SECTION 10: Stability and reactivity

10.1. Reactivity	
Reactivity	See the other subsections of this section for further details.
10.2. Chemical stability	
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.



10.3. Possibility of hazardous reactions		
Possibility of hazardous reactions	No potentially hazardous reactions known.	
10.4. Conditions to avoid		
Conditions to avoid	Avoid excessive heat for prolonged periods of time. Containers can burst violently or explode when heated, due to excessive pressure build-up.	
10.5. Incompatible materials		
Materials to avoid	Strong oxidising agents.	
10.6. Hazardous decomposition p	roducts	
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.	
SECTION 11: Toxicological inform	ation	
11.1. Information on hazard class	es as defined in Regulation (EC) No 1272/2008	
Acute toxicity - oral Notes (oral LD∞)	Based on available data the classification criteria are not met.	
Acute toxicity - dermal Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.	
Acute toxicity - inhalation Notes (inhalation LC∞)	Based on available data the classification criteria are not met.	
Skin corrosion/irritation Skin corrosion/irritation	Based on available data the classification criteria are not met.	
Serious eye damage/irritation Serious eye damage/irritation	Based on available data the classification criteria are not met.	
Respiratory sensitisation Respiratory sensitisation	Based on available data the classification criteria are not met.	
Skin sensitisation Skin sensitisation	Based on available data the classification criteria are not met.	
Germ cell mutagenicity Genotoxicity - in vitro	Based on available data the classification criteria are not met.	
Carcinogenicity Carcinogenicity	Based on available data the classification criteria are not met.	
IARC carcinogenicity	None of the ingredients are listed or exempt.	
Reproductive toxicity Reproductive toxicity - fertility	Based on available data the classification criteria are not met.	



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Reproductive toxicity - development	Based on available data the classification criteria are not met.	
Specific target organ toxicity - sing	jle exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.	
Specific target organ toxicity - repo	eated exposure	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.	
Aspiration hazard Aspiration hazard	Not relevant. Gas.	
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	May cause respiratory irritation.	
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur.	
Skin contact	No specific symptoms known.	
Eye contact	No specific symptoms known.	
Route of exposure	Inhalation Skin and/or eye contact	
Target organs	No specific target organs known.	
11.2. Information on other hazards		
Information on other hazards	This product does not contain any known or suspected endocrine disruptors.	
Toxicological information on ingredients.		
	Pentafluoroethane	

Acute toxicity - inhalation	
Notes (inhalation LC <sub>50</sub> )	LC50 > 800000 ppm, Inhalation, Rat
Respiratory sensitisation	
Respiratory sensitisation	Cardiac Sensitization Threshold Species: Dogs Note: No-observed-effect level: 75000 ppm Lowest observed effect level: 100 000 ppm

Germ cell mutagenicity



Genotoxicity - in vitro	Ames test: Negative. Cell type: Human lymphocytes Result: Negative Method: Mutagenicity (in vitro mammalian cytogenetic test)	
	Test Method: Chromosome aberration test in vitro Result: Negative	
	Cell type: Human lymphocytes Result: Negative	
	Cell type: Chinese Hamster Ovary Cells Result: Negative Bacterial reverse mutation test, (OECD 471): Negative. In vitro mammalian cell gene mutation test: Negative. Based on the test results of similar product. In vitro chromosal aberration test., (OECD 473): Negative.	
Poproductive toxicity	Mammalian Erythrocyte Micronucleus Test, (OECD Guideline 474), Mouse: Negative.	
Reproductive toxicity Reproductive toxicity - fertility	<ul> <li>NOAEL 50000 ppm, Inhalation, Rabbit Note: Did not show teratogenic effects in animal experiments.</li> <li>NOAEL 50000 ppm, Inhalation, Rat Note: Did not show teratogenic effects in animal experiments.</li> <li>Rat Uygulama şekli: Soluma (OECD 422) Negative.</li> </ul>	
Reproductive toxicity - development	Maternal toxicity: - NOAEL: 50000 ppm, Inhalation, Rabbit Note: Did not show teratogenic effects in animal experiments. Maternal toxicity: - NOAEL: 50000 ppm, Inhalation, Rabbit Note: Did not show teratogenic effects in animal experiments.	
Repeated dose toxicity	Species: Rat Application Route: Inhalation Exposure time: (4 Weeks) NOEL: 50000 ppm Subchronic toxicity	
	Difluoromethane	
Acute toxicity - inhalation		
Notes (inhalation LC <sub>50</sub> )	LC50 > 520000 ppm, Inhalation, Rat	
Respiratory sensitisation		
Respiratory sensitisation	Cardiac Sensitization Threshold Species: Dogs Note: No-observed-effect level: >350000 ppm	
Germ cell mutagenicity		
Genotoxicity - in vitro	Ames test: Negative.	
Genotoxicity - in vivo	Species: Mouse Cell type: Bone marrow Method: Mutagenicity (micronucleus test) Result: Negative	



	Reproductive toxicity			
	Reproductive toxicity - fertility	- NOAEL 50000 ppm, , Rat Note: Did not show teratogenic effects in animal experiments. - NOEL 50000 ppm, , Rabbit Note: Did not show teratogenic effects in animal experiments.		
	Repeated dose toxicity	Species: Rat Application Route: Inhalation Exposure time: (90 d) NOEL: 50000 ppm Subchronic toxicity		
SECTION 12	2: Ecological information			
Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.			
12.1. Toxicit	y			
Toxicity	Based on available data the classification criteria are not met.			
Ecological in	Ecological information on ingredients.			
Pentafluoroethane				
	Acute aquatic toxicity			
	Acute toxicity - fish	LC₅₀, 96 hour: >100 mg/l, Oncorhynchus mykiss (Rainbow trout) Based on the test results of similar product.		
	Acute toxicity - aquatic invertebrates	EC₅₀, 48 hour: >100 mg/l, Daphnia magna (Water flea)		
	Acute toxicity - aquatic plants	ErC50, 72 hour: >100 mg/l, Pseudokirchneriella subcapitata (OECD 201) Based on the test results of similar product.		
		NOEC, 72 hour: >1 mg/l, Pseudokirchneriella subcapitata (OECD 201)		
		Based on the test results of similar product.		
	12.2. Persistence and degradability         Persistence and degradability         The degradability of the product is not known.			
Ecological in	formation on ingredients.			
		Pentafluoroethane		
	Persistence and degradability	Not readily biodegradable. 5 % 28d (OECD 301D)		
12.3. Bioacc	umulative potential			
Bioaccumula	ative potential No data a	available on bioaccumulation.		
Ecological information on ingredients.				



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Pentafluoroethane

Partition coefficient

log Pow: 1.48 (OECD 107)

Difluoromethane

Partition coefficient	log Pow: 0.714	
12.4. Mobility in soil		
Mobility	Not relevant.	
12.5. Results of PBT and vPvB assessment		
Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.	
12.6. Endocrine disrupting properties		
Endocrine disrupting properties	The product does not contain any endocrine disrupting substance.	
12.7. Other adverse effects		
Other adverse effects	None known.	
SECTION 13: Disposal consideration	tions	
13.1. Waste treatment methods		
General information	The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products	
	wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.	
Disposal methods	wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out.	
Disposal methods SECTION 14: Transport information	wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous. Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.	
	wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous. Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.	
SECTION 14: Transport information	wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous. Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.	

14.2. UN proper shipping name

UN No. (ICAO)

UN No. (ADN)

Proper shipping name (ADR/RID) LIQUEFIED GAS, N.O.S. (Pentafluoroethane, Difluoromethane)

3163

3163



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Proper shipping name (IMDG)	LIQUEFIED GAS, N.O.S. (Pentafluoroethane, Difluoromethane)
Proper shipping name (ICAO)	LIQUEFIED GAS, N.O.S. (Pentafluoroethane, Difluoromethane)
Proper shipping name (ADN)	LIQUEFIED GAS, N.O.S. (Pentafluoroethane, Difluoromethane)
14.3. Transport hazard class(es)	
ADR/RID class	2.2
ADR/RID classification code	2A
ADR/RID label	2.2
IMDG class	2.2
ICAO class/division	2.2
ADN class	2.2
Transport labels	

#### Transport labels



#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user	
EmS	F-C, S-V
ADR transport category	3
Hazard Identification Number (ADR/RID)	20
Tunnel restriction code	(C/E)

14.7. Maritime transport in bulk according to IMO instruments

Maritime transport in bulk	Not applicable.
according to IMO instruments	



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#### **SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture	
National regulations	<ul> <li>Health and Safety at Work etc. Act 1974 (as amended).</li> <li>The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].</li> <li>EH40/2005 Workplace exposure limits.</li> <li>Commission Regulation (EU) 2020/878 of 18 June 2020.</li> <li>Commission Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)</li> <li>Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).</li> </ul>
Authorisations (SI 2020 No. 1577 Annex XIV) and REACH 1907/2006, Annex XIV	No specific authorisations are known for this product.
Restrictions (SI 2020 No. 1577 Annex XVII) and REACH 1907/2006, Annex XVII	No specific restrictions on use are known for this product.
Seveso Directive - Control of major accident hazards	Not relevant.
15.2. Chemical safety assessment	

No chemical safety assessment has been carried out.

#### **SECTION 16: Other information**

Abbreviations and acronyms used in the safety data sheet	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. IATA: International Air Transport Association. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate. LC50: Lethal Concentration to 50 % of a test population. LD50: Lethal Dose to 50% of a test population (Median Lethal Dose). EC <sub>50</sub> : 50% of maximal Effective Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.
Classification abbreviations and acronyms	Press. Gas (Liq.) = Gas under pressure: Liquefied gas



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Key literature references and sources for data	Source: European Chemicals Agency, http://echa.europa.eu/
Classification procedures according to SI 2019 No. 720	Press. Gas (Liq.) - H280: : Expert judgement., On basis of test data.
Revision comments	SDS has been revised under the current regulations.
Issued by	Büşra Tarakci / CRAD gbf@crad.com.tr Tel.:+90 216 3354600
Note to organizer	The certificate information is used exclusively for this SDS. No changes can be made to this SDS without the knowledge and approval of the certificate holder or the certificate information can not be used for another SDS. Otherwise, the certificate will assume no responsibility for the owner SDS.
Revision date	08/03/2023
Revision	2.1
Supersedes date	07/05/2018
SDS number	8097
Hazard statements in full	H220 Extremely flammable gas. H280 Contains gas under pressure; may explode if heated.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.