



SAFETY DATA SHEET

C-GAS R-407C

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

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name C-GAS R-407C
Chemical name 1,1,1,2-Tetrafluoroethane, Pentafluoroethane and Difluoromethane mixtures

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Refrigerant.

1.3. Details of the supplier of the safety data sheet

Manufacturer/ Supplier Cantaş Kimya Sanayi ve Ticaret A.Ş.
Çerkeşli Mahallesi, Gebze V (Kimya) İhtisas OSB, Fatma Börü Caddesi No:5/1 41455 Dilovası/ Kocaeli
Tel: 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) / (EC 1272/2008)

Physical hazards Press. Gas (Liq.) - H280

Health hazards Not Classified

Environmental hazards Not Classified

2.2. Label elements

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



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SECTION 3: Composition/information on ingredients

3.2. Mixtures

1,1,1,2-Tetrafluoroethane	50-54 %
CAS number: 811-97-2	EC number: 212-377-0
Classification Press. Gas (Liq.) - H280	
Pentafluoroethane	23-27 %
CAS number: 354-33-6	EC number: 206-557-8
Classification Press. Gas (Liq.) - H280	
Difluoromethane	21-25 %
CAS number: 75-10-5	EC number: 200-839-4
Classification 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 measures

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.



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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 medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant 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 (CO ₂).

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 measures

6.1. Personal precautions, protective 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. 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.
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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).
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6.3. Methods and material for containment and cleaning up

Methods for 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.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

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. Eliminate all sources of ignition.

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/Personal protection

8.1. Control parameters

Occupational exposure limits

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 4240 mg/m³

Norflurane (1,1,1,2-Tetrafluoroethane)

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/m³

Workers - Inhalation; Long term systemic effects: 13936 mg/m³



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Norflurane (1,1,1,2-Tetrafluoroethane) (CAS: 811-97-2)

DNEL	Workers - Inhalation; Long term systemic effects: 13936 mg/m ³ Consumer - Inhalation; Long term systemic effects: 2476 mg/m ³
PNEC	Fresh water; 0,1 mg/l marine water; 0,01 mg/l Sediment (Freshwater); 0,75 mg/kg STP; 73 mg/l

Pentafluoroethane (CAS: 354-33-6)

DNEL	Workers - Inhalation; systemic effects: 16 444 mg/m ³ Consumer - Inhalation; systemic effects: 1753 mg/m ³
PNEC	- Fresh water; 0,1 mg/l - Water, Intermittent release; 1 mg/l - Sediment (Freshwater); 0,6 mg/l

Diffuoromethane (CAS: 75-10-5)

DNEL	Workers - Inhalation; Long term systemic effects: 7035 mg/m ³ Consumer - Inhalation; Long term systemic effects: 750 mg/m ³
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.



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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.

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.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	-43.9°C
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



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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	No information available.
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 products

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 information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - oral	
Notes (oral LD₅₀)	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 LC₅₀)	Based on available data the classification criteria are not met.



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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.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
Specific target organ toxicity - single exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
Specific target organ toxicity - repeated 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.	



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Norflurane (1,1,1,2-Tetrafluoroethane)

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC50 >567000 ppm, Inhalation, Rat (OECD Test Guideline 403)

Skin corrosion/irritation

Animal data Rabbit. Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Rabbit. Not irritating.

Skin sensitisation

Skin sensitisation - Guinea pig: Not sensitising.
- Rat: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Note: In vitro tests did not show mutagenic effects.
Bacterial reverse mutation test: Negative. (OECD Guideline 471)
Chromosome aberration: Negative. (OECD Guideline 473)

Genotoxicity - in vivo Mammalian Erythrocyte Micronucleus Test: Negative. Mouse
Unscheduled in vivo DNA synthesis (UDS) assay in mammalian liver cells Rat
Negative.
(OECD Guideline 486)
Method of Administration: inhalation (gas)

Carcinogenicity Method of application: Inhalation 2 yil (OECD Guideline 453) Negative.

Carcinogenicity

Reproductive toxicity

Reproductive toxicity - fertility Mouse Method of application: Inhalation Negative.

Reproductive toxicity - development Rabbit Method of application: Inhalation OECD 414 Negative.

Repeated dose toxicity NOAEL 50000 ppm, Inhalation, Rat
LOAEL > 50000 ppm, Inhalation, Rat
OECD 413
NOAEC 40000 mbp, Inhalation, Dog
Test atmosferi: gaz. Notes:: Cardiac sensitization
LOAEC 80000 mbp, Inhalation, Dog
Test atmosphere: gas. Symptoms: May cause cardiac arrhythmia.
Cardiac Sensitization Threshold 334000 mbp, Inhalation, Dog

Pentafluoroethane

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC50 > 800000 ppm, Inhalation, Rat



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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 chromosomal aberration test., (OECD 473): Negative.
 Mammalian Erythrocyte Micronucleus Test, (OECD Guideline 474), Mouse: Negative.

Reproductive toxicity

Reproductive toxicity - fertility - NOAEL 50000 ppm, Inhalation, Rabbit Note: Did not show teratogenic effects in animal experiments.
 - NOAEL 50000 ppm, Inhalation, Rat Note: Did not show teratogenic effects in animal experiments.
 Rat Uygulama şekli: Soluma (OECD 422) Negative.

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 LC₅₀) LC50 > 520000 ppm, Inhalation, Rat

Respiratory sensitisation

Respiratory sensitisation Cardiac Sensitization Threshold Species: Dogs
 Note: No-observed-effect level: >350000 ppm

Germ cell mutagenicity



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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: Ecological information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity Based on available data the classification criteria are not met.

Ecological information on ingredients.

Norflurane (1,1,1,2-Tetrafluoroethane)

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hour: 450 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hour: 980 mg/l, Daphnia magna (Water flea)

Acute toxicity - aquatic plants ErC₅₀, 96 hour: >100 mg/l, Algae
Based on the test results of similar product.

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)



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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 information on ingredients.

Norflurane (1,1,1,2-Tetrafluoroethane)

Persistence and degradability Not readily biodegradable. (OECD 301D)

Pentafluoroethane

Persistence and degradability Not readily biodegradable. 5 % 28d (OECD 301D)

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Ecological information on ingredients.

Norflurane (1,1,1,2-Tetrafluoroethane)

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: 1.06

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.



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SECTION 13: Disposal considerations

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

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

14.1. UN number or ID number

UN No. (ADR/RID)	3340
UN No. (IMDG)	3340
UN No. (ICAO)	3340
UN No. (ADN)	3340

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	REFRIGERANT GAS R 407C
Proper shipping name (IMDG)	REFRIGERANT GAS R 407C
Proper shipping name (ICAO)	REFRIGERANT GAS R 407C
Proper shipping name (ADN)	REFRIGERANT GAS R 407C

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





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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

Emergency Action Code 2TE

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 according to IMO instruments Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations Health and Safety at Work etc. Act 1974 (as amended).
 The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
 EH40/2005 Workplace exposure limits.

EU legislation 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).
 Commission Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
 Commission Regulation (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 (REACH).

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.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.



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 Commission Regulation (EU) 2020/878 of 18 June 2020.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	<p>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). EC₅₀: 50% of maximal Effective Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.</p>
Classification abbreviations and acronyms	<p>Press. Gas (Liq.) = Gas under pressure: Liquefied gas</p>
Key literature references and sources for data	<p>Source: European Chemicals Agency, http://echa.europa.eu/</p>
Classification procedures according to SI 2019 No. 720	<p>Press. Gas (Liq.) - H280: : Expert judgement., On basis of test data.</p>
Training advice	<p>Read and follow manufacturer's recommendations. Only trained personnel should use this material.</p>
Issued by	<p>Büşra TARAKCI / CRAD gbf@crad.com.tr Tel+90 216 3354600</p>
Note to organizer	<p>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. This SDS is prepared based on the information and documents received from product owner. CRAD or/and SDS author shall not be responsible for incorrect prepared of SDS and pecuniary loss or intangible damages because of deficient or wrong information and documents which comes from product owner.</p>
Revision date	20/03/2023
Revision	1.2
Supersedes date	07/05/2018
SDS number	8096
Hazard statements in full	<p>H220 Extremely flammable gas. H280 Contains gas under pressure; may explode if heated.</p>

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