

Attenzione



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

1.1. Product identifier Trade

name : carbon dioxide
carbon dioxide
Carbon dioxide

Sheet No. : 018
Other means of identification : carbon dioxide
CAS number : 124-38-9
EC number : 204-696-9
EU index number : ---

REACH registration number : Indicated in the list of substances in Annex IV/V of REACH, exempt from the obligation registration.

Chemical formula: CO₂

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

Relevant uses identified : Industrial and professional use. Do a risk analysis before use.
Test gas/Calibration gas.
Shielding gas in welding processes.
Gas for inerting, dilution, purging.
Food applications.
Use in the production of electronic/photovoltaic components. Extinguishing agent.
Pharmaceutical industry applications.

Uses advised against : Uses other than those listed above are not intended, contact the supplier for further information information on other uses.
Consumer use.

1.3. Information about the supplier of the safety data sheet

Supplier

GAS MARINE BV srl
Lungotorrente Secca 23MR 16163 Genova
Tel: +39 010 71676
E-mail: info@gasmarine.it

Email address (competent person responsible for SDS) : massimiliano@gasmarine.com

1.4. Emergency telephone number Emergency

telephone number : 800.452661 (24h/24h, 365 days/year)

country	Organism/society	Address	Emergency number	Comments
Italy	Poison Control Center "Papa Giovanni XXIII" hospital, clinical toxicology, Department of clinical pharmacy and pharmacology	piazza OMS, 1 24127 Bergamo	800 883300	--
Italy	Poison Control Center Niguarda Ca' Granda hospital	piazza Ospedale Maggiore, 3 20162 Milano	+39 02 66101029	--
Italy	Poison Control Center National Toxicological Information Centre, IRCCS Salvatore Maugeri Foundation Work and Rehabilitation Clinic	via Salvatore Maugeri, 10 27100 Pavia	+39 0382 24444	--
Italy	Poison Control Center "Agostino Gemelli" Polyclinic, Clinical Toxicology Service	largo Agostino Gemelli, 8 00168 Roma	+39 06 3054343	--
Italy	Poison Control Center "Umberto I" Polyclinic, PRGM emergency toxicology, University of Rome	viale del Policlinico, 155 00161 Roma	+39 06 49978000	--
Italy	Poison Control Center Bambino Gesù Children's Hospital, DEA Emergency and Reception Department	piazza Sant'Onofrio, 4 00165 Roma	+39 06 68593726	--
Italy	Poison Control Center University hospital united	viale Luigi Pinto, 1 71122 Foggia	800 183459	--
Italy	Poison Control Center "Antonio Cardarelli" hospital, III anesthesia and resuscitation service	via Antonio Cardarelli, 9 80131 Napoli	+39 081 5453333	--
Italy	Poison Control Center Integrated university hospital (AOUI) of Verona with headquarters in Borgo Trento	piazzale Aristide Stefani, 1 37126 Verona	800 011858	--
Italy	Poison Control Center Careggi University Hospital, U.O. Medical toxicology	largo Brambilla, 3 50134 Firenze	+39 055 7947819	--

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture Classification

according to Regulation (EC) No. 1272/2008 [CLP]

Physical dangers

Gas under pressure: Refrigerated liquefied gas

H281

2.2. Label elements

Labeling according to EC regulation no. 1272/2008 [CLP]

Hazard pictograms (CLP):



Warning Statements (CLP)

Hazard Statements (CLP)

Precautionary Statements

(CLP)

- Prevention

- Reaction

- Conservation

GHS04

: Attention

: H281 - Contains refrigerated gas; may cause burns or cryogenic injuries.

: P282 - Use thermal gloves and face shield or eye protection.

: P336+P315 - Thaw frozen parts using warm water. Do not rub the part interested. Consult a doctor immediately.

: P403 - Store in a well-ventilated place.

2.3. Other dangers

Asphyxiant in high concentrations.
 In high concentrations, carbon dioxide rapidly causes respiratory failure even when the oxygen content is at normal levels. Symptoms are headache, nausea and vomiting which can lead to loss of consciousness and death.
 Not classified as PBT or vPvB.
 The substance/mixture does not have properties that interfere with the endocrine system.

SECTION 3: composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP], ATE, M factors
carbon dioxide (chilled liquid)	CAS number: 124-38-9 EC number: 204-696-9 EU Index Number: --- REACH registration number: *1	100	Press. Gas (Ref. Liq.), H281

Full text of H and EUH statements: see section 16.

It does not contain other products and/or impurities that influence the classification of the product.

* 1: Indicated in the list of substances in Annex IV/V of REACH, exempt from registration.

* 2: Registration not required: substance manufactured or imported in quantities <1t/year.

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- Inhalation : Move the victim to an uncontaminated area wearing self-contained breathing apparatus. Maintain the patient lying down and warm. Call a doctor. Proceed with cardiopulmonary resuscitation if breathing stops.
- Contact with skin : In case of frostbite burns, spray with water for at least 15 minutes. Apply a sterile gauze. Get medical help.
- Contact with eyes : Immediately flush eyes with water for at least 15 minutes.
- Ingestion : Ingestion is considered an unlikely route of exposure.

4.2. Main symptoms and effects, both acute and delayed

In high concentrations it can cause asphyxiation. Symptoms may include loss of mobility and/or consciousness. Victims may not be aware of asphyxiation.
 Low concentrations of CO₂ cause increased breathing rate and headaches. Refer to section 11.

4.3. Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Fire fighting measures

5.1. Extinguishing media

- Suitable extinguishing means : Water spray.
- Unsuitable extinguishing media : The product does not burn, use fire fighting measures appropriate to the surrounding fire. : Do not use water jets to extinguish the fire.

5.2. Special hazards arising from the substance or mixture

- Specific hazards : Exposure to flames may cause the container to rupture or explode.
- Hazardous combustion products : None.

5.3. Recommendations for fire extinguishers

- Specific methods : Use firefighting measures appropriate to the surrounding fire. Exposure to flames and heat can cause the container to break. Cool containers exposed to risk with shower jets of water from a protected position. Do not pour contaminated fire water into sewer drains. If possible, stop the product leakage. If possible, use water spray to reduce fumes. In the event of a leak, do not spray the container with water. Cool the surrounding area with water (from a protected position) to contain the fire. Move containers away from the fire area if this can be done without risk.
- Special protective equipment for firefighters : Use self-contained breathing apparatus in confined spaces. Standard protective clothing and protective equipment (self-contained breathing apparatus) for firefighters. UNI EN 137 standard - Respiratory protection devices - Open-circuit compressed air self-contained breathing apparatus with full mask. UNI EN 469 standard - Protective clothing for firefighters. UNI EN 659 standard - Protective gloves for firefighters.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For those who do not intervene directly : Operate in accordance with the local emergency plan. Attempt to stop the leak. Evacuate the area. Ensure adequate ventilation. Use protective clothing. Avoid entry into sewers, basements, excavations and areas where accumulation may be dangerous. Stay upwind. For more information on personal protective equipment, refer to section 8.
- For those who intervene directly : Use self-contained breathing apparatus to enter the affected area if it is not proven that the atmosphere is breathable. When the release of asphyxiating gases is possible, oxygen detectors should be used. For more information please refer to section 5.3.

6.2. Environmental precautions

- Attempt to stop the leak.
Liquid leaks can cause the structures to become brittle.

6.3. Methods and materials for containment and cleanup

- Ventilate the area.

6.4. Reference to other sections

- See also sections 8 and 13.

SECTION 7: handling and storage

7.1. Precautions for safe handling Safe

- use of the product : The product must be handled in accordance with good safety and hygiene practices industrial. Only experienced and appropriately trained personnel can handle gases under pressure. Do not breathe the gas. Avoid releasing product into the work area. Do not smoke while handling the product. Use only specific equipment suitable for the product, pressure and temperature of use. If in doubt, contact your gas supplier.

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Tanks containing or which have contained flammable or explosive products must not be rendered inert with liquid carbon dioxide. Any formation of solid CO₂ particles must be excluded. The system must be correctly earthed to avoid the risk of electrostatic discharge. Pay attention to the risk of electrostatic energy formation when using CO₂ fire extinguishers. Do not use them in areas where flammable atmospheres may form. Avoid suction of water, acids and alkalis. Ensure that the entire gas distribution system has been (or is regularly) checked for leaks before use. Consider safety valves in gas installations.

Safe handling of the gas container

: Do not allow gas to flow back into the container.
Open the valve slowly to avoid pressure surges.
Avoid sucking water into the container.
Protect containers from physical damage; do not drag, roll, slide or drop. When moving containers, even if for short distances, use the appropriate handling means (trolleys, hand trolleys, etc...) designed for the transport of such containers. Leave the valve caps in place until the container has been secured to a wall or workbench or placed in a suitable stand and is ready for use.
If the operator encounters any difficulty while operating the valve, discontinue use and contact the supplier.
Never attempt to repair or modify container valves or safety devices.
Damaged valves must be reported to the supplier immediately.
Keep container valves clean and free of contaminants, especially oil and water.
Refit the caps and/or caps of the valves and containers, where supplied, as soon as the container is disconnected from the equipment.
Close the container valve after each use even if empty, even if still connected to the equipment.
Never attempt to transfer gases from one container to another.
Do not use direct flame or electric heating to increase the internal pressure of the container.
Do not remove or make illegible the labels affixed by the supplier to identify the contents of the container.

7.2. Conditions for safe storage, including any incompatibilities

For further information on the safe storage of refrigerated carbon dioxide refer to the document "Refrigerated CO₂ storage at users' premises" (EIGA Doc. 66), available at <http://www.eiga.eu> and consult your supplier.
Observe local regulations and legislative requirements regarding the storage of containers. The containers must not be stored in conditions that favor corrosive phenomena.
The caps and/or plugs must be fitted.
Containers must be stored upright and anchored to prevent them from falling.
Containers in storage should be checked periodically for general condition and any leaks.
Keep container below 50°C in a well-ventilated area.
Store containers in areas where there is no risk of fire, away from heat sources and sources of ignition.
Keep away from combustible substances.

7.3. Specific end uses

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

carbon dioxide (chilled liquid) (124-38-9)	
EU - Indicative Occupational Exposure Limit Value (IOEL)	
Local name	Carbon dioxide
IOEL TWA	9000 mg/m ³
IOEL TWA [ppm]	5000 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
Italy - Occupational exposure limit values	
Local name	Carbon dioxide
OEL TWA	9000 mg/m ³
OEL TWA [ppm]	5000 ppm
Regulatory reference	Annex XXXVIII of Legislative Decree 9 April 2008, n. 81 and subsequent amendments.
USA - ACGIH - Occupational exposure limit values	
Local name	Carbon dioxide
ACGIH OEL TWA [ppm]	5000 ppm
ACGIH OEL STEL [ppm]	30000 ppm
Comment (ACGIH)	TLV® Basis: Asphyxia
Regulatory reference	ACGIH 2022

DNEL (Derived No Effect Level) : No data available.

PNEC (Predicted No-Effect Concentrations) : No data available.

8.2. Exposure controls

8.2.1. Suitable technical controls

Provide adequate general and local exhaust ventilation.
 Pressurized systems should be checked periodically for leaks.
 Ensure exposure is well below occupational exposure limits (where available).
 When the release of asphyxiating gases is possible, oxygen detectors should be used.
 When CO₂ release is possible, CO₂ detectors should be used. Consider using a work permit system, for example for maintenance activities.

8.2.2. Individual protection measures, for example personal protective equipment

A risk analysis should be conducted and documented in each work area, to assess the risk related to the use of the product and to identify the appropriate PPE for the identified risks. The following recommendations should be considered.
 PPE compliant with the recommended UNI/EN/ISO standards must be selected.

- Eye/face protection : Wear goggles and a face shield during decanting operations disconnection of the hose.
UNI EN 166 standard - Personal eye protection - Specifications.
- Skin protection
- Hand protection : Wear work gloves when handling gas containers.
UNI EN 388 standard - Protective gloves against mechanical risks, performance level 1 or higher.
Wear cryogenic gloves when transferring or disconnecting the hose.

- Others : UNI EN 511 standard - Protective gloves against the cold.
: Wear safety shoes when handling containers.
- Protezione per le vie respiratorie : UNI EN ISO 20345 standard - Personal protective equipment - Safety footwear.
: In low-oxygen environments, self-contained breathing apparatus or a supply system should be used
di aria respirabile con maschera.
Si raccomanda l'utilizzo di autorespiratori se non si conoscono le caratteristiche dell'esposizione, ad esempio, durante le attività di manutenzione.
Norma UNI EN 137 - Dispositivi di protezione delle vie respiratorie - Autorespiratori a circuito aperto ad aria compressa con maschera intera.
Consultare le istruzioni date dal fornitore del dispositivo di protezione per la scelta del dispositivo appropriato.
- Thermal hazards : None other than those indicated in the previous sections.

8.2.3. Environmental exposure controls

None necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
- Physical state at 20°C / 101.3kPa	: Gaseous.
- Color	: Colorless.
Odor	: Odorless.
	The olfactory threshold is subjective and inadequate to warn of overexposure.
Melting Point / Freezing Point	: -78.5 °C The melting point under normal conditions does not exist. At atmospheric pressure the Solid carbon dioxide sublimates into gaseous carbon dioxide at -78.5°C
Boiling point	: -56.6 °C
Flammability	: Not flammable.
Lower explosive limit	: Not applicable.
Upper explosive limit	: Not applicable.
Flash point	: Not applicable to gases and gas mixtures.
Auto-ignition temperature	: Not flammable.
Decomposition temperature	: Not applicable.
pH	: Not applicable to gases and gas mixtures.
Kinematic viscosity	: Not applicable to gases and gas mixtures.
Solubility in water [20°C]	: 2000 mg/l
Partition coefficient n-octanol/water (Log Kow)	: 0.83
Vapor pressure [20°C]	: 57.3 bar(a)
Vapor pressure [50°C]	: Reliable data not available.
Density and/or relative density	: Not applicable to gases and gas mixtures.
Relative vapor density (air=1) Characteristics of the particles	: 1.52 : Not applicable to gases and gas mixtures. Nanoforms are not relevant to gases and gas mixtures.

9.2. More information

9.2.1. Information regarding physical hazard classes

Oxidizing properties	: It has no oxidizing properties. : 31
Critical temperature [°C]	: °C

9.2.2. Other safety features	: 44 g/mol
Molecular mass	: Gas/vapour heavier than air. May accumulate in enclosed spaces particularly at level of the ground or below it.
Other data	

SECTION 10: stability and reactivity

10.1. Reactivity

Non ci sono ulteriori pericoli di reattività oltre a quelli descritti nei paragrafi sottostanti.



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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of dangerous reactions

None.

10.4. Conditions to avoid

Avoid humidity in systems.

10.5. Incompatible materials

Materials such as carbon steels, low alloy steels and plastics become brittle at low temperatures and are subject to failure. Use materials suitable for the cryogenic conditions present in systems containing refrigerated liquid gases.
Please consult ISO 11114 for additional information on material compatibility.

10.6. Hazardous decomposition products

None.

SECTION 11: toxicological information

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

Acute toxicity	: No toxicological effects are expected from this product if the limit values are respected
Skin corrosion/irritation	exposure.
Serious eye damage/irritation	: No known effects from this product.
Respiratory or skin sensitization	: No known effects from this product.
Mutagenicity	: No known effects from this product.
Carcinogenicity	: No known effects from this product.
Toxic for reproduction: fertility	: No known effects from this product.
Toxic for reproduction: fetus	: No known effects from this product.
Specific target organ toxicity (STOT) — single exposure	: No known effects from this product.
Specific target organ toxicity (STOT) — repeated exposure	: No known effects from this product.
Danger in case of aspiration	: No known effects from this product.
11.2. Information about other hazards	: Not applicable to gases and gas mixtures.
More information	: Unlike simple asphyxiants, carbon dioxide has the ability to cause death even when normal oxygen levels are maintained (20-21%). It has been found that 5% CO ₂ contributes synergistically to the increase in toxicity of other gases (CO, NO ₂). CO ₂ has been shown to increase the production of carboxy or meta hemoglobin from these gases, probably due to its stimulatory effects on the respiratory and circulatory systems. For further information please refer to the document 'EIGA Safety Info 24: Carbon Dioxide, Physiological Hazards' available at www.eiga.eu . The substance/mixture does not have properties that interfere with the endocrine system.

SECTION 12: Ecological information

12.1. Toxicity

Assessment	: This product does not cause any ecological damage.	
EC50 48h - Daphnia magna [mg/l]	EC50	: Data not available.
72h - Algae [mg/l]	: Data not available.	
LC50 96h - Fish [mg/l]	: Data not available.	

12.2. Persistence and degradability

Assessment	: This product does not cause any ecological damage.
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12.3. Bioaccumulative potential

Assessment : This product does not cause any ecological damage.

12.4. Mobility in soil

Assessment : This product does not cause any ecological damage.

12.5. Results of PBT and vPvB assessment

Assessment : Not classified as PBT or vPvB.

12.6. Endocrine disrupting properties

Assessment : The substance/mixture does not have properties that interfere with the endocrine system.

12.7. Other adverse effects

Other adverse effects : May cause damage to vegetation by freezing.
 Effect on the ozone layer : No effect on the ozone layer.
 Global Warming Potential (GWP) [CO₂=1] : 1
 Effects on global warming : If discharged in large quantities it can contribute to the greenhouse effect.
 Contains greenhouse gases.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

List of hazardous waste (according to Commission Decision 2000/532/EC and subsequent amendments) : May be discharged to atmosphere in well-ventilated area.
 Avoid direct discharge of large quantities into the atmosphere.
 Do not discharge where accumulation may be dangerous.
 Return the unused product in the original container to the supplier.
 : 16 05 05: gases in pressure containers, other than those mentioned in 16 05 04*.

13.2. Additional information

The treatment and disposal of waste by external companies must be carried out in compliance with current legislation.

SECTION 14: Transport information

14.1. UN number or ID number

According to the requirements of ADR/RID/IMDG/IATA/ADN UN Number : 1013

14.2. Official UN shipping name Road/rail

transport :
 (ADR/RID) Air transport : CARBON DIOXIDE
 (ICAO-TI / IATA-DGR) : Carbon dioxide,
 Sea transport (IMDG) : CARBON DIOXIDE,

14.3. Transport hazard classes

Labeling



2.2: Non-flammable, non-toxic gases.

Road/rail transport (ADR/RID)

Class : 2
 Classification code : 2A
 Hazard identification number : 20
 Tunnel restriction code : C/E - Transport in tanks: passage prohibited in category C, D and E tunnels; Others transport: passage prohibited in category E tunnels

Transport by air (ICAO-TI / IATA-DGR) Class/ Division (incidental risk(s))	: 2.2
Sea transport (IMDG)	
Class/ Division (accessory risk(s)) Emergency Sheet (EmS) - Fire	: 2.2 : F-C
Emergency Sheet (EmS) - Spill	: S-V
14.4. Packing group	
Road/rail transport (ADR/RID)	: Not applicable.
Air transport (ICAO-TI / IATA-DGR)	: Not applicable. :
Sea transport (IMDG)	Not applicable.
14.5. Dangers for the environment	
Road/rail transport (ADR/RID)	: None.
Air transport (ICAO-TI / IATA-DGR)	: None.
Sea transport (IMDG)	: None.
14.6. Special precautions for users	
Packing instructions	
Road/rail transport (ADR/RID) Air transport (ICAO-TI / IATA-DGR)	: P200.
Passenger and cargo planes	: 200.
Cargo planes only	: 200.
Sea transport (IMDG)	: P200.
Precautionary measures for transport	: Avoid transport on vehicles where the loading area is not separated from the passenger compartment. Make sure the driver is informed of the potential risk of the load and knows what to do in the event of an accident or emergency. Before starting transport: - Make sure there is adequate ventilation. - Make sure the load is well secured. - Make sure the valve is closed and not leaking. - Make sure that the valve blind plug, where supplied, is correctly fitted. - Make sure that the cap, where supplied, is correctly fitted. Transport emergency telephone number: 800.452661 (operating 24 hours a day, 365 days a year, at the National Response Center of the S.E.T. Transport Emergency Service).

14.7. Maritime transport in bulk in accordance with IMO acts

Not applicable.

SECTION 15: Regulatory information

15.1. Health, safety and environmental laws and regulations specific to the substance or mixture

EU regulations

Restrictions on use	: None.
Further rules, limitations and legal requirements	: Not included in the PIC Regulation list (Reg. (EU) No. 649/2012). Not included in the list of the POP regulation (reg. (EU) No. 2019/1021). : Not included.
Seveso Directive 2012/18/EU (Seveso III)	
National standards	: Ensure compliance with all national and local regulations.
Regulatory reference	
15.2. Chemical safety assessment	A Chemical Safety Assessment (CSA) is not required for this product.

SECTION 16: other information

Indications of changes	: Safety data sheet drawn up in accordance with Regulation (EU) No. 2020/878.
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Section	Modified item	Edit	Notes
1.2	Relevant uses identified	Edit	--
1.2	Uses advised against	Edit	--
1.4	Emergency telephone number	Edit	--
2.3	Other hazards that do not contribute to the classification	Edit	--
5.1	Suitable extinguishing media	Edit	--
6.1	Emergency procedures	Edit	Changes to the structure and content of the section
7.1	Safe use of the product	Edit	--
7.2	Conditions for safe storage, including any incompatibilities	Edit	--
8.2	Respiratory protection	Edit	--
9.1	Information on basic physical and chemical properties	Edit	Changes to the structure and content of the section, pursuant to the reg. (EU) No. 2020/878
9.2	More information	Edit	Changes to the structure and content of the section, pursuant to the reg. (EU) No. 2020/878
11.1	Acute toxicity	Edit	--
11.2	Information about other hazards	Edit	--
12.6	Endocrine disrupting properties	Edit	--
15.1	Further rules, limitations and legal requirements	Edit	--
16	Full text of H and EUH hazard statements	Edit	--
16	Additional information	Edit	--
16	Abbreviations and acronyms	Edit	--
16	Indications of changes	Edit	--
16	Training tips	Edit	--

Abbreviations and acronyms

: ADR - Agreement relating to international transport of dangerous goods by route - Agreement relating to the international transport of dangerous goods by road.
 ATE - Acute Toxicity Estimate - Estimate of acute toxicity.
 CAS - Chemical Abstract Service number - Numerical identifier attributed by the Chemical Abstract Service to chemical substances.
 CLP - Classification Labeling Packaging - Regulation (EC) No. 1272/2008 relating to the classification, labeling and packaging of substances and mixtures.
 CSA - Chemical Safety Assessment - Chemical safety assessment.
 PPE - Personal Protective Equipment.
 EINECS - European Inventory of Existing Commercial Chemical Substances - European register of chemical substances on commerce.
 EN - European Standard - European standard.
 IATA - International Air Transport Association - International Air Transport Association.
 IMDG code - International Maritime Dangerous Goods code - Code for the transport of dangerous goods by sea.
 LC50 - Lethal Concentration 50 - Lethal concentration for 50% of the population tested.
 UN - United Nations Organization.
 PBT - Persistent, Bioaccumulative and Toxic - Persistent, bioaccumulative and toxic.
 vPvB - very Persistent and very Bioaccumulative - Very persistent and very bioaccumulative.
 REACH - Registration, Evaluation, Authorization and Restriction of Chemicals - Regulation (EC) No. 1907/2006 concerning the registration, evaluation, authorization and restriction of chemical substances.
 RID - Règlement concernant le transport International railaire des marchandises Dangereuses - Regulation concerning the international transport of dangerous goods by rail.
 RMM - Risk Management Measures - Risk management measures.
 STOT-RE: Specific Target Organ Toxicity-Repeated Exposure.
 STOT-SE: Specific Target Organ Toxicity-Single Exposure.
 UFI - Unique Formula Identifier.



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Training tips

WGK - Wassergefährdungsklassen - Hazard classes for water.

: The risk of asphyxia is often underestimated and must be clearly highlighted during operator training.

For further information please refer to the document "Dangers of asphyxiation" (EIGA SL 01), available at <http://www.eiga.eu>.

Additional information

: Classification in accordance with the procedures and calculation methods of Regulation (EC) No. 1272/2008 (CLP).

The bibliographical references and main data sources are stored and kept updated in the document "Classification and labeling guide" (EIGA Doc. 169) available at <http://www.eiga.eu>.

For further information, contact the Toll Free Line: 800.452661 (operating 24 hours a day, 365 days a year, at the National Response Center of the Transport Emergency Service SET.).

Full text of H and EUH hazard statements

H281

: Contains refrigerated gas; may cause burns or cryogenic injuries.

Press. Gas (Ref. Liq.)

: Gas under pressure: Refrigerated liquefied gas

WAIVER OF LIABILITY

: Before using this product in any new process or experiment, it must be

conducted an in-depth study on the safety and compatibility of the product itself with materials.

The information contained in this document is believed to be valid at the time of printing. Although the utmost care has been taken in drafting this document, the Company must not be held responsible for any damage or injury resulting from its use.

End of document