
SAFETY DATA SHEET

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

1.1 Product identifier

- Product Name: CARBON DIOXIDE
- Product Part Number:

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

- Use of the substance/mixture: Industrial and professional. Perform risk assessment prior to use, Beverage product dispensing, Freezing applications, Fire extinguishing media, Shielding gas., Test gas / Calibration gas. Laboratory use Contact supplier for more uses information
- Industrial and professional. Perform risk assessment prior to use
- Shielding gas.
- Test gas / Calibration gas. Laboratory use Contact supplier for more uses information
- Beverage product dispensing
- Shielding gas.

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Wilhelmsen Ships Service AS
- Address of Supplier: Willem Barentszstraat 50, 3165AB Rotterdam, The Netherlands
- Telephone: +31 4877 777 Fax: +31 4877 888
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- Head office: Wilhelmsen Ships Service AS
- Strandveien 20, N1324 Lysaker
- Norway, Tel: (47) 6349 440 35
-
- Other suppliers SEE SECTION 16!!!
- For quotations contact your local Customer Services
-
- Responsible Person: Product HSE Manager,
- Email: Email: WSS.GLOBAL.SDSINFO@wilhelmsen.com
- Telephone: Tel.: +31 10 4877775

1.4 Emergency telephone number

- ****ONLY TO BE USED IN CASE OF AN INCIDENT****
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- International 24hrs Emergency NCEC: + 44 1865 407333
- American Chemistry Council 24hrs +1 703 527 3887
- American 24hrs Emergency CHEMTREC (800) 424 9300
- Greece: Poisoning emergency center, +30 210 7793777
- Norway: Poison information centre, +47 22591300
- Sweden: Poison information centre, +46 08 33 12 31
- China NRCC 24hrs emergency telephone number: +86-0532-8388 9090
- Wilhelmsen Ships Service, Melbourne, AUSTRALIA Emergency 24hrs: +61 3 9630 0998

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

- Not hazardous according to current The Dangerous Substances Directive (67/548/EEC)
- This product is not classified as hazardous according to Directive 1999/45/EEC
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SECTION 2 Hazards identification (....)

- Regulations 1272/2008/EEC. Classification, labeling and packing of dangerous substances and preparations
- Signal Word: Warning
- Symbols: GHS04
- Contains refrigerated gas; may cause cryogenic burns or injury (H281).
- Contains gas under pressure; may explode if heated (H280).

2.2 Label elements



- Signal Word: Warning
-
- Contains:
- CARBON DIOXIDE
-
- Hazard phrases
 - Contains refrigerated gas; may cause cryogenic burns or injury (H281).
 - Contains gas under pressure; may explode if heated (H280).
- Precautionary Phrases
 - Wear cold insulating gloves/face shield/eye protection (P282).
 - Thaw frosted parts with lukewarm water. Do not rub affected area (P336).
 - Get immediate medical advice/attention (P315).
 - Store in a well-ventilated place (P403).

2.3 Other hazards

- Not a PBT according to REACH Annex XIII
- Not applicable
- Odour: Odourless
- Appearance: Gas, colourless

SECTION 3 Composition/information on ingredients

3.1 Mixtures

- Carbon dioxide
 - Concentration: 100
 - CAS Number: 124-38-9
 - EC Number: 204-696-9
 - R/H Phrases: -
 - Symbols: -
 - Categories: Liq. Gas

SECTION 4 First aid measures

4.1 Description of first aid measures

- IF ON SKIN: Immerse in cool water/wrap in wet bandages (P302+P334).
- Obtain immediate medical attention
-
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305+P351+P338).

SECTION 4 First aid measures (....)

- If substance has got into eyes, immediately wash out with plenty of water for at least 15 minutes
 - Irrigate eyes thoroughly whilst lifting eyelids
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 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P341).
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340).
 - Wear Breathing Apparatus
 - Apply artificial respiration only if patient is not breathing
- 4.2 Most important symptoms and effects, both acute and delayed
- Possible frost-bite of affected areas
 - In cases of severe exposure, dizziness, confusion, headache or stupor may develop
 - In cases of severe exposure, respiratory failure may develop
- 4.3 Indication of any immediate medical attention and special treatment needed
- No information available
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SECTION 5 Fire-fighting measures

- 5.1 Extinguishing media
- Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions
- 5.2 Special hazards arising from the substance or mixture
- Pressurized container
 - Inform Fire Brigade of potential danger of exploding and rocketing cylinders
- 5.3 Advice for firefighters
- Keep container(s) exposed to fire cool, by spraying with water
 - Inform Fire Brigade of potential danger of exploding and rocketing cylinders
 - Wear Breathing Apparatus
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SECTION 6 Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
- Shut off source of leak if safe to do so
 - In poorly ventilated areas or confined spaces, use an airline respirator or self-contained breathing apparatus
- 6.2 Environmental Precautions
- Avoid release to the environment. Refer to special instructions/Safety data sheets (S61)
- 6.3 Methods and material for containment and cleaning up
- Shut off source of leak if safe to do so
 - Allow product to evaporate
 - Ventilate area
- 6.4 Reference to other sections
- See Section 13
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SECTION 7 Handling and storage

- 7.1 Precautions for safe handling
- Ensure adequate ventilation
- 7.2 Conditions for safe storage, including any incompatibilities
- Keep in a cool, dry, well ventilated place
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SECTION 7 Handling and storage (....)

- Do not store above 45 °C
- 7.3 Specific end use(s)
- Contact supplier for further information
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SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- Carbon dioxide
TLV (TWA) 5000 ppm (Carbondioxide)
OES / STEL (TLV) 30000 ppm

8.2 Exposure controls

- The undiluted product must not be used in a confined space without good ventilation

8.3 Occupational exposure controls



- In poorly ventilated areas or confined spaces, use an airline respirator or self-contained breathing apparatus
 - Wear safety boots when handling cylinders.
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SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Odour: Odourless
- Appearance: Liquefied pressure gas
- pH - not applicable
- Boiling point -78 °C to 760 °C
- Vapour pressure 5700 kPa @ 25 °C
- Vapour density (air = 1) 1.52
- Melting point -57 °C to 760 °C
- Water solubility 2 g/l
- Not flammable
- Unstable above
- Auto-ignition point 760 deg C

9.2 Other information

- No information available
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SECTION 10 Stability and reactivity

10.1 Reactivity

- This article is considered stable under normal conditions

10.2 Chemical stability

- This article is considered stable under normal conditions

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose

10.4 Conditions to avoid

- Avoid overheating

10.5 Incompatible materials

- Not applicable
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SECTION 10 Stability and reactivity (....)

10.6 Hazardous Decomposition Products

- No hazardous decomposition products known
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SECTION 11 Toxicological information

11.1 Information on toxicological effects

- No effects in humans
- Inhalation
Asphyxiant
- Contact with skin
May cause frost-bite
- Contact with eyes
May cause frost-bite
- Ingestion
Not regarded as a potential route of exposure.
- Carcinogenicity
No evidence of carcinogenic effects

11.2 Contact with eyes

- May cause frost-bite

11.3 Contact with skin

- May cause frost-bite

11.4 Ingestion

- Not regarded as a potential route of exposure.

11.5 Inhalation

- Asphyxiant
-

SECTION 12 Ecological information

12.1 Toxicity

- On available data, substance is not harmful to aquatic life

12.2 Persistence and degradability

- Not applicable

12.3 Bioaccumulation Potential

- Not applicable

12.4 Mobility in soil

- This substance is volatile

12.5 Results of PBT and vPvB assessment

12.6 Other Adverse Effects

- Contains greenhouse gas(es) not covered by 842/2006/EC
- This product is controlled under the "Montreal Protocol" (1992 revision).
- Global Warming Potential: 1 (CO₂ = 1; 100 years)
- Ozone Depletion Potential: 0
- GWP and ODP values according to IPCC/ASHRAE/ARI.
- IPCC = Intergovernmental Panel on Climate Control
- ASHRAE = American Society of Heating, Refrigeration and Air-Conditioning Engineers
- ARI = American Refrigeration Institute

SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Disposal should be in accordance with manufacturer's instructions

13.2 Classification

- Not applicable
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SECTION 14 Transport information

14.1 UN

- UN No.: UN1013
- Proper Shipping Name: CARBON DIOXIDE
- Hazard Class: 2.2
- Packing Group: n/a

14.2 Environmental hazards

- On available data, substance is not harmful to the environment

14.3 Special precautions for user

- Gas cylinders must be equipped with valve protection caps during transport.

14.4 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

- Not applicable
- Not applicable

14.5 Road/Rail (ADR/RID)

- ADR UN No.: UN1013
- Proper Shipping Name: CARBON DIOXIDE
- ADR Hazard Class: 2.2
- ADR Packing Group: n/a

14.6 Sea (IMDG)

- IMDG UN No.: UN1013
- Proper Shipping Name: CARBON DIOXIDE
- IMDG Hazard Class: 2.2
- IMDG Pack Group: n/a
- IMDG EmS: F-C, S-V

14.7 Air (ICAO/IATA)

- ICAO UN No.: UN1013
- Proper Shipping Name: CARBON DIOXIDE
- ICAO Hazard Class: 2.2
- ICAO Packing Group: n/a

14.8 DOT / CFR (US Department of Transportation)

- Identification Number: UN1013
- DOT Proper Shipping Name: CARBON DIOXIDE
- DOT Labels:
- Product RQ (lbs): n/a

SECTION 15 Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- This Safety Data Sheet has been prepared in accordance with article 31 and annex II in REACH and Directive 453/2010/EU.
- Council Directive 1999/45/EEC Classification, packing and labelling of dangerous preparations.
- Dangerous Substances Directive (67/548/EEC). Classification, packaging and labelling of dangerous substances
- Regulations 1272/2008/EEC. Classification, labeling and packing of dangerous substances and preparations

15.2 Chemical Safety Assessment

- None
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SECTION 16 Other information

The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents

The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer

The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties

The most up-to-date version of this MSDS can be found on www.wilhelmsen.com/shipsservice

OTHER CONTACT INFORMATION MAJOR CHEMICAL OFFICES

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