



SAFETY DATA SHEET

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

1. 1 Product identifier

Product name	Carbon dioxide, refrigerated liquid
Trade name	Mysoda CO2 Cylinder
Chemical name	Carbon dioxide, refrigerated liquid CAS No: 124-38-9 EC No (from EINECS): 204-696-9
Chemical formula	CO ₂
REACH Registration number	Listed in Annex IV/V of Regulation (EC) No 1907/2006 (REACH), exempted from registration.

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

Relevant identified uses	Carbonation of water with sparkling water makers or soda makers.
Uses advised against	Any other use.

1.3. Details of the supplier of the safety data sheet

Company identity	Mysoda Oy Holkkitie 6, 00880 Helsinki, FINLAND Tel. +358 207 121 590 email: info@mysoda.fi
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1.4. Emergency telephone number

Telephone	+358 9 471 977 FINLAND Poison Information Centre P.O.B 790 (Tukholmankatu 17), HUS, SF - 00029 Helsinki
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation 1272/2008/EC (CLP)

Gases under pressure: Refrigerated liquefied gas

Classification according to Directive 67/548/EEC & 1999/45/EC

Not included in Annex VI. Not classified as hazardous to health. No EC labelling required.

2.2. Label elements

Labelling Regulation EC 1272/2008 (CLP)



Signal words

Physical hazards

Warning

H280: Contains gas under pressure; may explode when heated. The cylinder valve however contains a bursting disc designed to safely release the contents of the cylinder to the atmosphere before the test pressure is reached, thus protecting the cylinder. H281: Refrigerated liquefied gas. Contact with the product may cause cold burns or frostbite.

Precautionary Statements

Storage

P403: Store in a well-ventilated place.

Disposal

None

Precautionary Statement Disposal

Return to supplier.

2.3. Other hazards

Asphyxiant in high concentrations.

SECTION 3: Composition/information on ingredients.**3.1. Substances**

Chemical name	Identifier	Purity	Classification according to Directive 67/548/EEC	Classification according to Regulation 1272/2008/EC (CLP)
Carbon dioxide	CAS No: 124-38-9 EC No; 204-696-9 REACH Registration number: Listed in Annex IV/V of Regulation (EC) No 1907/2006 (REACH), exempted from registration.	100%	Not classified	Refrigerated liquefied gas, H281

Trade name: Mysoda CO2 Cylinder

3.2. Mixtures

Contains no other components or impurities which will influence the classification of the product.

Full text of R-phrases – see chapter 16.

SECTION 4: First aid measures**4.1. Description of first aid measures**

Inhalation	Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
Skin contact	In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.
Eye contact	Rinse the eye with water immediately. Remove contact lenses, if present and easy to do. Continue rinsing. Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance.
Ingestion	Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

Respiratory arrest. In high concentrations may cause asphyxiation. Symptoms may include loss of mobility or consciousness. Contact with evaporating liquid may cause frostbite or freezing skin.

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

None.

SECTION 5: Fire fighting measures

General: Heat may cause the container to explode

5.1. Extinguishing media

Suitable extinguishing media Material will not burn. In case of fire in the surroundings:
use appropriate extinguishing agent.

Suitable extinguishing media Do not use a strong water jet to extinguish

5.2. Special hazards arising from the substance or mixture

Special exposure hazards in a fire Exposure to fire may cause containers to rupture/explode.
Safety device releases all contents to atmosphere.

Hazardous combustion products None.

5.3. Advice for fire-fighters

Special fire fighting procedures Stop leak if safe to do so. Continue water
spray from protected position until container stays cool. Use
extinguishants to contain the fire. Isolate the source of the
fire or let it burn out. Move container away or cool with
water from a protected position.

Special protective equipment for
Fire-fighters

Firefighters must use standard protective equipme including
flame retardant coat, helmet with face shield, gloves, rubber
boots, and in enclosed spaces, SCBA. Guideline: EN 469
Protective clothing for firefighters. Performance
requirements for protective clothing for firefighting. EN
15090 Footwear for firefighters. EN 659 Protective gloves for
firefighters. EN 443 Helmets for fire fighting in buildings and
other structures. EN 137 Respiratory protective devices -
Self-contained opencircuit compressed air breathing
apparatus with full face mask - Requirements, testing,
marking.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Try to stop release. Evacuate area. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Provide adequate ventilation.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3. Methods for containment and cleaning up

Ventilate area. Liquid spillages can cause embrittlement of structural materials.

6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not throw cylinders or cause them to fall. Suck back of water into the container must be prevented. Do not allow back feed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.

7.2. Conditions for safe storage

Boxed cylinders may stand upright, loose cylinders should be laid horizontally and prevented from rolling. Store cylinders away from direct sunlight or other sources of heat. Store in an ambient temperature below 50°C. Cylinders should not be stored in conditions likely to encourage corrosion. Store cylinders in a location free from fire risk and away from sources of heat and ignition. Keep away from combustible material. Cylinders should preferably be stored in open or ground level ventilated areas. If in a small closed room, the doors should be marked with "WARNING. NO VENTILATION. OPEN WITH CAUTION" in letters not less than 25mm high. CO₂ is a heavy gas and any leakage will gather on the lowest level and slowly fill up a closed room.

7.3. Specific end use(s)

Cylinders for use with sparkling water makers or soda makers. Inspect the CO₂ cylinder before use. If the cylinder or the valve attached to it is damaged, do not use it, but contact your dealer, importer or manufacturer. Do not attempt to modify, puncture or incinerate the cylinder. Do not throw the cylinder or cause it to fall. Do not store the CO₂ cylinder in a freezer. If the CO₂ cylinder is colder or warmer than room temperature, it must be gradually brought to room temperature. Do not place it in the freezer or on a heat source to speed up the process.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit value	ILV (EU) - 8H – [mg/m ³] : 9000
	ILV (EU) - 8H – [ppm] : 5000
	TLV© - TWA [ppm] : 5000
	TLV© - STEL [ppm] : 30000

8.2. Exposure controls

Ensure adequate ventilation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state at 20°C// 101.3kPa	Liquefied gas
Colour	Colourless
Odour	No odour warning properties
Odor Threshold	Odor threshold is subjective and is inadequate to warn of over exposure.
pH	Not applicable
Melting point	-56,6 °C
Boiling point	-78,5 °C
Critical temperature	31°C
Flash point	Not applicable to gases and gas mixtures
Evaporation rate	Not applicable to gases and gas mixtures
Flammability	Not flammable
Vapour Pressure 20°C	5730 kPa
Relative density, gas [air=1]	1,52
Relative density, liquid: [water=1]	0,82
Solubility in water	2000 mg/l
Partition coefficient (n-octanol/water)	0,83
Autoignition temperature	Not applicable
Viscosity 20° C	Not applicable
Explosive properties	Not explosive
Oxidising properties	Not applicable

9.2. Other information:

Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity hazard other than the effects described in sub-section below.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

None

10.6. Hazardous decomposition products

None

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	In high concentrations may cause rapid circulatory insufficiency. Symptoms are headache, nausea and vomiting, which may lead to unconsciousness.
Skin corrosion/ irritation	Has no known effect.
Serious Eye Damage/Eye Irritation	Has no known effect.
Respiratory or Skin Sensitization	Has no known effect.
Germ Cell Mutagenicity	Has no known effect.
Carcinogenicity	Has no known effect.
Reproductive toxicity	Has no known effect.
Specific Target Organ Toxicity - Single Exposure	Has no known effect.
Specific Target Organ Toxicity - Repeated Exposure	Has no known effect.
Aspiration Hazard	Not applicable to gases and gas mixtures.

SECTION 12: Ecological information

12.1. Acute toxicity

This product is not harmful to the environment.

12.2 Persistence and Degradability

This product is not harmful to the environment.

12.3 Bioaccumulative potential

Log Pow: 0,83. This product is not harmful to the environment.

12.4 Mobility in soil

This product is not harmful to the environment.

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB

12.6 Other adverse effects




Effects on the ozone layer	May cause frost damage to vegetation
Ozone depletion potential [R11=1]	Not harmful
Global warming potential [CO2=1]	No other information available
Impact on global warming	1
	When discharged in large quantities may contribute to the greenhouse effect.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General	Contact supplier if guidance is required. Vent to atmosphere in a well ventilated place. Discharge to atmosphere in large quantities should be avoided. Do not discharge into any place where its accumulation could be dangerous.
List of hazardous wastes	16 05 05: Gases in pressure containers other than those mentioned in 16 05 04.
13.2 Additional information	No other information.

SECTION 14: Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Environmental hazards	Label	Special precautions for user	Additional information
ADR/RID	UN1013	Carbon dioxide	2.2a	P200	None		Transport category 3. Tunnel restriction code C/E	ADR Special Provision 653 applies to diameter 60mm Mysoda cylinders.
IMO-IMDG	UN1013	Carbon dioxide	2.2a	P200	None		Emergency schedules. Fire F-C. Spillage S-V	
IATA	UN1013	Carbon dioxide	2.2a	200 (Passenger and cargo aircraft)	None		Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers ensure that they are firmly secured. Ensure all cylinders are protected from the sun/heat, are covered and secure. Ensure adequate ventilation. Ensure compliance with applicable regulations.	

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

Seveso Directive 96/82/EC: Not applicable.

15.2. Chemical safety assessment

A CSA does not need to be carried out for this product. Exposure data is included elsewhere in this SDS. Usage instructions are supplied with each product.

SAFETY DATA SHEET IN ACCORDANCE WITH EU REGULATION 453/2010.

ISSUED OCTOBER 31ST, 2015

REVISED AUGUST 6TH, 2021

SECTION 16: Other information

Ensure all national/local regulations are observed.

The hazard of asphyxiation is often overlooked and must be stressed during operator training. Ensure storage areas are ventilated. Contact with liquid CO₂ can cause cold burns/frostbite. Rapidly discharged cylinders can become very cold and protective gloves should be worn. Do not breathe the gas.

Store cylinders away from direct sunlight or other sources of heat. Store in an ambient temperature below 50°C. Store the cylinders securely in boxes to prevent them rolling or falling on warehouse personnel. Do not throw or impact the cylinders.

Ensure packaging is kept dry. Cylinders are heavy; care should be taken to lift the boxes correctly to avoid back injuries.

This Safety Data Sheet replaces previous issues compiled in accordance with 91/155/EEC.

Advice

Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted. Details given in this document are believed to be correct at the time of going to press.

Further information

Note: When using this document care should be taken, as the decimal sign and its position complies with rules for the structure and drafting of international standards and is a comma on the line. As an example, 2,000 is two (to three decimal places) and not two thousand, whilst 1.000 is one thousand and not one (to three decimal places).

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