

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**CO2-Druckgasflasche**

Revision date: 08.11.2024

Product code: CO2-Druckgasflasche

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

CO2-Druckgasflasche

**EAN**

4001942080118

4001942080316

**Further trade names**

CARBON DIOXIDE

CO2-Füllung

Substance name: carbon dioxide

CAS No: 124-38-9

EC No: 204-696-9

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

Gas cylinder for adjustment of water parameters in aquarium and ponds.

The product is intended for consumer use.

The product is intended for professional use.

**1.3. Details of the supplier of the safety data sheet**

Company name: sera Werke Heimtierbedarf

J. Ravnak GmbH &amp; Co. KG

Street: Borsigstraße 49

Place: D-52525 Heinsberg

Post-office box: 1466

D-52518 Heinsberg

Telephone: +49 (0)2452 91260

Telefax: +49 (0)2452 5922

E-mail: info@sera.de

Contact person: Dr. Matthias Dahm

E-mail: sds.info@sera.biz

Internet: www.sera.de

Responsible Department: Labor

**1.4. Emergency telephone**

+49 (0)2452 91260 (Only available during office hours.)

**number:**

+49 (0)2452 9126555

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Liquefied gas; H280

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008**

Signal word: Warning

Pictograms:



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**Hazard statements**

H280 Contains gas under pressure; may explode if heated.

**Precautionary statements**

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P410+P403 Protect from sunlight. Store in a well-ventilated place.

**Additional advice on labelling**

The product is classified and labelled according to EC directives or corresponding national laws.

**2.3. Other hazards**

Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Vapours are heavier than air and may spread along floors.

**SECTION 3: Composition/information on ingredients****3.1. Substances****Chemical characterization**Liquefied gas (Carbon dioxide (CO<sub>2</sub>))**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
124-38-9	carbon dioxide			100 %
	204-696-9			
	Liquefied gas; H280			

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

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

Danger of suffocation: High concentrations of gas can create an oxygen-deficient environment.

**After inhalation**

Asphyxiant in high concentrations.

Remove casualty to fresh air and keep warm and at rest. In the case of bluish discoloration (lips, earlobes, finger nails) give oxygen as soon as possible. Immediately call a doctor.

**After contact with skin**

Rapid evaporation of the liquid may cause frostbite.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

No hazards which require special first aid measures

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

Unconsciousness. Asphyxiant in high concentrations. Rapid evaporation of the liquid may cause frostbite.

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

Treat symptomatically.

**SECTION 5: Firefighting measures**

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**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

no restriction

**5.2. Special hazards arising from the substance or mixture**Non-flammable. The product itself does not burn. Pressurised container: May burst if heated. In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>).**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

The product itself does not burn.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Evacuate area. Ensure adequate ventilation, especially in confined areas. The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

**For non-emergency personnel**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

**For emergency responders**

Use suitable breathing apparatus.

**6.2. Environmental precautions**

Prevent further leakage or spillage.

**6.3. Methods and material for containment and cleaning up****For containment**

Provide adequate ventilation.

**For cleaning up**

Leave to vapourize.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Observe instructions for use. Provide adequate ventilation. Do not breathe gas.

**Advice on protection against fire and explosion**

Pressurised container: May burst if heated.

**Advice on general occupational hygiene**

not applicable

**Further information on handling**

Use only in well-ventilated areas. The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Protect pressurised gas bottles against overturning. Keep away from sources of heat (e.g. hot surfaces),

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sparks and open flames.

### Hints on joint storage

Keep away from combustible material.

### Further information on storage conditions

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

### 7.3. Specific end use(s)

Gas cylinder for adjustment of water parameters in aquarium and ponds.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
124-38-9	Carbon dioxide	5000	9000		TWA (8 h)	
		15000	27000		STEL (15 min)	

### 8.2. Exposure controls

#### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear eye protection/face protection. Suitable eye protection: goggles.

##### Hand protection

Hand protection is not required.

##### Skin protection

Body protection: not required.

##### Respiratory protection

Usually no personal respirative protection necessary.

##### Thermal hazards

Pressurised container: May burst if heated.

##### Environmental exposure controls

No special environmental measures are necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	compressed liquefied gas
Colour:	colourless
Odour:	odourless
Odour threshold:	not applicable
Melting point/freezing point:	-56,6 °C
Boiling point or initial boiling point and boiling range:	-78,5 °C
Flammability:	not applicable
	Non-flammable.
Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Flash point:	not applicable
Auto-ignition temperature:	does not ignite
Decomposition temperature:	not determined

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pH-Value:	3,2-3,7
Viscosity / kinematic:	not determined
Water solubility: (at 25 °C)	2,9 g/l
Solubility in other solvents not determined	
Partition coefficient n-octanol/water:	0,83
Vapour pressure: (at 20 °C)	5730 hPa
Vapour pressure:	not determined
Density:	not determined
Relative density (at -56,6 °C):	1,512
Bulk density:	not applicable
Relative vapour density: (at 21 °C)	1,522
Particle characteristics:	not applicable

**9.2. Other information****Information with regard to physical hazard classes****Explosive properties**

No ignition, explosion, self-heating or visible decomposition.

Pressurised container: May burst if heated.

**Sustaining combustion:**

Not sustaining combustion

**Self-ignition temperature**

Solid:

not applicable

Gas:

not applicable

**Oxidizing properties**

not applicable

**Other safety characteristics****Evaporation rate:**

not determined

**Solvent separation test:**

not applicable

**Sublimation point:**

-78,5 °C

**Softening point:**

not applicable

**Pour point:**

not applicable

**Viscosity / dynamic:**

0,07 mPa·s

(at 20 °C)

**Flow time:**

not applicable

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

Avoid high temperatures or direct sunlight. Closed containers may burst when pressure and temperature rise.

**10.5. Incompatible materials**

none

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

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**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

Effects of breathing high concentrations of vapour may include:

Concentration &gt;5%: Dyspnoea, Dizziness, Disorientation, Headache, Spasms, Unconsciousness.

Concentration &gt;8%: Unconsciousness, suffocation.

**Acute toxicity**

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

Concentration &gt;20%: May be fatal if inhaled..

**Irritation and corrosivity**

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Information on likely routes of exposure**

Inhalation, Dermal, Eye contact

**Specific effects in experiment on an animal**

No data available.

**Additional information on tests**

No data available.

**Practical experience**

High concentration of vapours may induce unconsciousness.

**11.2. Information on other hazards****Endocrine disrupting properties**

No data available.

**Other information**

No data available.

**Further information**

Health injuries are not known or expected under normal use.

**SECTION 12: Ecological information****12.1. Toxicity**

At normal temperatures a very volatile or gaseous product, which can easily escape into the atmosphere.

Global warming potential (GWP).

**12.2. Persistence and degradability**

not applicable

**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

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### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
124-38-9	carbon dioxide	0,83

### 12.4. Mobility in soil

At normal temperatures a very volatile or gaseous product, which can easily escape into the atmosphere.

### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

### 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

### 12.7. Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Dispose of waste according to applicable legislation.

#### List of Wastes Code - residues/unused products

160505 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers other than those mentioned in 16 05 04

#### List of Wastes Code - used product

160505 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers other than those mentioned in 16 05 04

#### List of Wastes Code - contaminated packaging

160116 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08); tanks for liquefied gas

#### Contaminated packaging

Completely emptied packages can be recycled. If recycling is not practicable, dispose of in compliance with the European Communities (Toxic and Dangerous Waste) Regs 1982, SI 33 of 1982.

## SECTION 14: Transport information

### Land transport (ADR/RID)

<b>14.1. UN number or ID number:</b>	UN 1013
<b>14.2. UN proper shipping name:</b>	CARBON DIOXIDE
<b>14.3. Transport hazard class(es):</b>	2
<b>14.4. Packing group:</b>	-
Hazard label:	2.2
Classification code:	2A
Special Provisions:	378 392 584 653 662
Limited quantity:	120 mL
Excepted quantity:	E1
Transport category:	3
Hazard No:	20
Tunnel restriction code:	C/E

### Inland waterways transport (ADN)

<b>14.1. UN number or ID number:</b>	UN 1013
<b>14.2. UN proper shipping name:</b>	CARBON DIOXIDE
<b>14.3. Transport hazard class(es):</b>	2
<b>14.4. Packing group:</b>	-

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Hazard label:	2.2
Classification code:	2A
Special Provisions:	378 392 584 653 662
Limited quantity:	120 mL
Excepted quantity:	E1

#### Marine transport (IMDG)

<b>14.1. UN number or ID number:</b>	UN 1013
<b>14.2. UN proper shipping name:</b>	CARBON DIOXIDE
<b>14.3. Transport hazard class(es):</b>	2.2
<b>14.4. Packing group:</b>	-
Hazard label:	2.2
Special Provisions:	378, 392
Limited quantity:	120 mL
Excepted quantity:	E1
EmS:	F-C, S-V

#### Air transport (ICAO-TI/IATA-DGR)

<b>14.1. UN number or ID number:</b>	UN 1013
<b>14.2. UN proper shipping name:</b>	CARBON DIOXIDE
<b>14.3. Transport hazard class(es):</b>	2.2
<b>14.4. Packing group:</b>	-
Hazard label:	2.2
Special Provisions:	A202
Limited quantity Passenger:	Forbidden
Passenger LQ:	Forbidden
Excepted quantity:	E1
IATA-packing instructions - Passenger:	200
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	200
IATA-max. quantity - Cargo:	150 kg

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

Provide adequate ventilation.

#### 14.7. 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

##### EU regulatory information

Information according to Directive 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)
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##### Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

##### National regulatory information

Water hazard class (D):	- - non-hazardous to water
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#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information



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**Abbreviations and acronyms**

Liquefied gas

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Key literature references and sources for data**

Safety Data Sheet, ECHA

**Relevant H and EUH statements (number and full text)**

H280 Contains gas under pressure; may explode if heated.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The receiver of our product is singularly responsible for adhering to existing laws and regulations.