

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

amended by 2020/878/EU

GENERIC EU SDS - NO COUNTRY SPECIFIC DATA

HENDI Soda chargers CO₂

Version number: 2.0
Replaces version of: 04.01.2019 (1)

Revision: 25.08.2026

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

1.1 Product identifier

Trade name

HENDI Soda chargers CO₂

Identification of the substance

Carbon dioxide

Registration number (REACH)

REACH: listed in Annex IV / V of EC 1907/2006 exempted from registration.
Directive 2008/84/EC, page 28 "E290 Carbon Dioxide".

EC number

204-696-9

CAS number

124-38-9

Alternative name(s)

Carbon Dioxide cartridges, max. 7,8gr CO₂ cartridges

Article number

588406 Soda chargers 10pcs box

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

Relevant identified uses

Soda water / beer / cocktails / drinks and for other food grade carbonization purposes. Carbon dioxide cartridges are only suitable for the preparation of carbonated beverages in suitable devices. Use cartridges only in accordance with the instructions of the dispenser.

Uses advised against

Do not use for other than recommended use

1.3 Details of the supplier of the safety data sheet

Hendi BV
Innovatielaan 6
6745 XW De Klomp
Netherlands

Telephone: +31 (0)317 681040
e-mail: info@hendi.eu
Website: www.hendi.eu

1.4 Emergency telephone number

Emergency information service

+31 (0)317 681040
This number is only available during the following office hours: Mon-Fri 09:00 - 17:00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

CLP Classification is not applicable for food additive (CLP Art 1.5 (e)).

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

CLP Labelling is not applicable for food additive (CLP Art 1.5 (e)).

2.3 Other hazards



Pressurized container.

The cartridges may not be sold to persons below 18 years of age. Contains gas under pressure; may explode if heated. Keep out of reach of children. Do not puncture or burn, even after use. Not even after use puncture or burn the empty charger. Do not

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expose to direct sunlight. The chargers (cartridges) are under pressure, the temperature should not exceed 50°C (122°F). Store in a well-ventilated place. Store in a dry and cool place. The chargers are in accordance to the norm EN 16509. Contents: 10,4 ml (max. 7,8 g) pure carbon dioxide gas (CO₂) (E290). Disposal and processing: Contact your local waste disposal company. Keep aimed away from body or head during discharging and replacement. Do not refill. Never dispose of full chargers. Dispose of packaging only after using the last charger. Asphyxiant in high concentrations. Contact with liquid may cause cold burns/frostbite.

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance	Carbon dioxide
Identifiers	
CAS No	124-38-9
EC No	204-696-9
Purity	99 %
Molecular formula	CO ₂
Molar mass	44,01 g/mol

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.

Following skin contact

Thaw frosted parts with lukewarm water. Do not rub affected area. DO NOT USE HOT WATER. A physician should see the patient promptly if the cryogenic "burn" has resulted in blistering of the dermal surface or deep tissue freezing. If skin irritation or rash occurs: Get medical advice/attention.

Following eye contact

Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Persons with potential exposure to carbon dioxide should not wear contact lenses.

Following ingestion

Rinse mouth with water (only if the person is conscious). Call a POISON CENTER or doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

For specialist advice physicians should contact the poison centre.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water; Water spray; Foam; Dry extinguishing powder; Carbon dioxide (CO₂);

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Co-ordinate firefighting measures to the fire surroundings.

5.2 Special hazards arising from the substance or mixture

Contact with the product can cause burns and/or frostbite. Contains gas under pressure; may explode if heated.

Hazardous combustion products

During fire hazardous fumes/smoke could be produced. Oxygen compounds. Hydrogen compounds. Carbon monoxide (CO). Carbon dioxide (CO₂).

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance. Cool chargers to prevent pressure buildup and possible explosion, when exposed to extreme heat. Closed chargers can explode due to buildup of pressure when exposed to extreme heat.

Special protective equipment for firefighters

Self-contained breathing apparatus (EN 137). Standard protective clothing for firefighters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Follow emergency procedures such as the need to evacuate the danger area or to consult an expert. Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Remove persons to safety. Ventilate affected area.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Use personal protective equipment as required.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

- specific notes/details

Do not puncture charger. Protect charger from abuse. Protect from extreme temperatures. Do not attempt to refill charger. Never dispose of full chargers. Never force open. Keep out of reach of children and minors. If charger is punctured, gas will escape and freeze charger, obviate direct contact with charger to avoid cold-burns.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

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- flammability hazards

Protect from sunlight.

- incompatible substances or mixtures

Keep away from alkalis, oxidising substances, acids.

Control of effects

Protect against external exposure, such as

High temperatures. UV-radiation/sunlight.

Consideration of other advice

Store in a well-ventilated place. Keep container tightly closed.

- specific designs for storage rooms or vessels

- storage temperature

Maximum temperature of processing:
50 °C

- packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Generic EU SDS - No country specific limit values mentioned.

Relevant DNELs/DMELs/PNECs and other threshold levels

No data available.

8.2 Exposure controls

Appropriate engineering controls

General ventilation. Provide eyewash stations and safety showers at the workplace.

Individual protection measures (personal protective equipment)

Eye/face protection

Not required for normal use. Use safety glasses if there is a risk of eye contamination. (EN ISO 16321).
Keep aimed away from body or head during discharging and replacement.

Skin protection

Not required for normal use. Use gloves if there is a risk of hand contamination. During discharge or replacement only work with dry hands to protect the fingers from freezing to the charger holder during filling.

- hand protection



Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. The selection of the suitable gloves does not only depend on the material, but also on other quality characteristics and varies from manufacturer to manufacturer. Wash hands thoroughly after handling.

- type of material

Nitrile rubber

- material thickness

Use gloves with a minimum material thickness: $\geq 0,38$ mm.

- breakthrough time of the glove material

Use gloves with a minimum breakthrough time of the glove material: >480 minutes (permeation: level 6).

- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

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Respiratory protection

Not required for normal use. In case of inadequate ventilation wear respiratory protection. Full face mask/half mask/quarter mask (EN 136/140). Type: ABEK-P2 (combined filters against gases, vapours and particles, colour code: Brown/Grey/Yellow/Green/White).

Environmental exposure controls

Take appropriate precautions to avoid uncontrolled release into the environment. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	gaseous (compressed)
Colour	colourless
Odour	odourless
Melting point/freezing point	-56,6 °C
Boiling point or initial boiling point and boiling range	-78,5 °C
Flammability	non-combustible
Lower and upper explosion limit	LEL: UEL: not determined
Flash point	not applicable
Auto-ignition temperature	calculated value, referring to a component of the mixture not relevant
Decomposition temperature	no data available
pH (value)	not applicable (gaseous)
Kinematic viscosity	not relevant

Solubility

Water solubility	0,82 g/l at 15 °C
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Partition coefficient n-octanol/water (log value)	not relevant (inorganic)
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Vapour pressure	56,88 bar at 20 °C
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Density and/or relative density

Density	not determined
Relative vapour density	not relevant (gaseous)

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Particle characteristics	not relevant (gaseous)
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9.2 Other information

Pressure/temperature characteristics at filling density of 0.75 kg/liter: 57 bar at 20°C; 170 bar at 50°C; 245 bar at 70°C; 365 bar at 100°C; 400 bar at 110°C

Parameter of CO₂ cartridges:

Overall Length (approx.): 65mm

Body Diameter: 18mm

Neck Diameter: 8.7mm

Internal Volume (approx.): 10.4 ml min.

Net weight of CO₂ (approx.): 7.8 gr

Tare wt. of cartridges (approx.): 21 gr

Gross wt. of cartridges (approx.): 28.8 gr

Bursting pressure: >500 bar

TUV test report cartridges on request available. The chargers are in accordance to the norm EN 16509.

Information with regard to physical hazard classes	there is no additional information
Other safety characteristics	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

It's a reactive substance. Gas under pressure.

If heated:

Danger of explosion. Gas under pressure. Danger of bursting container.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Protect from extreme temperatures. Do not puncture charger. Keep away from heat, static electricity discharges and all sources of ignition.

10.5 Incompatible materials

Strong oxidisers. Strong acids.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

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

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic. Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin. Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant. Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitizer. Based on available data, the classification criteria are not met.

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Germ cell mutagenicity

Shall not be classified as germ cell mutagenic. Based on available data, the classification criteria are not met.

Carcinogenicity

Shall not be classified as carcinogenic. Based on available data, the classification criteria are not met.

Reproductive toxicity

Shall not be classified as a reproductive toxicant. Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure). Based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure). Based on available data, the classification criteria are not met.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard. Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Other information

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6 Endocrine disrupting properties

Information on this property is not available.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Recycling/reclamation of other inorganic materials.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packages

Only packages which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Never dispose of full chargers. .

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SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID/ADN	UN 1013
IMDG-Code	UN 1013
ICAO-TI	UN 1013

14.2 UN proper shipping name

ADR/RID/ADN	CARBON DIOXIDE
IMDG-Code	CARBON DIOXIDE
ICAO-TI	Carbon dioxide

14.3 Transport hazard class(es)

ADR/RID/ADN	2
IMDG-Code	2.2
ICAO-TI	2.2

14.4 Packing group

not assigned

14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Maritime transport in bulk according to IMO instruments

No data available.

Additional information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - additional information

Classification code	2A
Danger label(s)	2.2



Special provisions (SP)	378, 392, 406, 584, 662
Excepted quantities (EQ)	E1
Limited quantities (LQ)	120 ml
Transport category (TC)	3
Tunnel restriction code (TRC)	C/E
Hazard identification No	20

SECTION 15: Regulatory information

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

This Safety Data Sheet is purely informative and does comply with EU regulations, but not with country-specific regulations.

Relevant provisions of the European Union (EU)

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Restrictions according to REACH, Annex XVII

Not listed.

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

Not listed.

Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
	not assigned		

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

Pollutant release and transfer registers (PRTR)			
Name acc. to inventory	CAS No	Remarks	Threshold for releases to air (kg/year)
carbon dioxide	124-38-9		100 million

Water Framework Directive (WFD)

Not listed.

Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/2006 and repealing Regulation (EU) No 98/2013

Not listed.

Regulation on persistent organic pollutants (POP)

Not listed.

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance by the supplier.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Complete revision of the safety data sheet.

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level

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Abbr.	Descriptions of used abbreviations
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LEL	Lower explosion limit (LEL)
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
SVHC	Substance of Very High Concern
UEL	Upper explosion limit (UEL)
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Training advice

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training. Persons related to the transportation of the dangerous goods in compliance with the ADR Agreement should be properly trained within the scope of performed tasks (general training, on-the-job training and training related to the safety issues).

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product. All information given in this Safety Data Sheet is exclusively related to the product described and is provided assuming that the product will be used in a way and for the purposes as stated by the manufacturer. The information is based on our present state of knowledge and will be reviewed regularly. This Safety Data Sheet has only been set up with the intention to describe the safety aspects of the product and therefore should not be construed as guaranteeing specific properties of the product of concern or its suitability for a particular application. It is the user's own responsibility to take the precautionary measures described and also to take care that this information is complete and adequate for the use of this product. It is recommended to pass through the information in this Safety Data Sheet, whenever necessary in an adapted form, to all staff and interested parties of concern. Changes, printing and typesetting errors reserved.