

**Product information – 8,4g (11,4ml) carbon dioxide chargers CO<sub>2</sub>**

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<b>Name of product</b>	<b>Article-no.:</b>
8,4g (11,4ml) carbon dioxide (CO <sub>2</sub> ) chargers	0003x, 0004x, 0006x, 0007x, 0013x



**8,4g (11,4ml) carbon dioxide chargers CO<sub>2</sub>**



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## 1 Description

CO<sub>2</sub> Charger containing 8.4g (11.4ml) of carbon dioxide.

Disposable steel cylinder containing CO<sub>2</sub> under high pressure. The contents are released by piercing the metal cap.

iSi Soda Charger:

- Produced with 100% green electricity
- Climate neutral production (all climate emissions have been reduced or compensated) - certified by TÜV Austria.
- Made from lower-emission, locally sourced, European steel
- Consists of up to 30% recycled steel

## 2 Use

Principal use is in conjunction with appliances designed for carbonating water. With one Soda Charger a carbonation of 1 L water is possible.

The cylinders comply with the requirements of the regulation (EC) 1935/ 2004 on materials and articles intended to come in contact with food.

CO<sub>2</sub> complies with the requirements of regulation (EC) 231/2012 and the requirements of the regulation (EC) 1333/2008.

iSi CO<sub>2</sub> cylinders are registered by NSF as a NSF Component.



**3 Technical data**

External surface: galvanized, CrVI free

Sealing method: Pierceable metal cap, welded to neck opening of charger

Material of body: special deep drawing steel

Details and tolerances are given in the customer-drawing 60118003.

DIMENSION	METRIC UNITS	US / IMPERIAL UNITS
Overall length:	65,3 mm	2,570 in
Body Diameter:	18,3 mm	0,720 in
Neck Diameter:	8,7 mm	0,343 in
Thickness of sealing cap:	0,25 mm	0,01 in

Internal Volume (approx.)	11,4 ml	0,70 in <sup>3</sup>
Net weight of CO <sub>2</sub> :	8,4 g	0,296 oz
Tare wt. of charger (approx.):	21,1 g	0,74 oz
Gross wt. of charger (approx.):	29,5 g	1,04 oz
Filling density:	max. 0,75 kg/l	max. 0,434 oz/in <sup>3</sup>
Bursting pressure:	> 50 MPa	> 7.250 lbf/in <sup>2</sup>
Test pressure	24,4 MPa at 65°C	3.539 lbf/in <sup>2</sup> at 149°F

Pressure/Temperature Characteristics at a filling density of 0.75 kg/litre:	5,7 MPa at 20° C	827 lbf/in <sup>2</sup> at 68° F
	18,0 MPa at 50° C	2.611 lbf/in <sup>2</sup> at 122° F
	24,4 MPa at 65° C	3.539 lbf/in <sup>2</sup> at 149° F
	26,5 MPa at 70° C	3.843 lbf/in <sup>2</sup> at 158° F
	38,8 MPa at 100° C	5.627 lbf/in <sup>2</sup> at 212° F
	43,0 MPa at 110° C	6.237 lbf/in <sup>2</sup> at 230° F

#### 4 Description of gas

Carbon dioxide, CO<sub>2</sub>

Approved food additive: E290 according to EU directive No. 231/2012

Einecs-number: 204-696-9

CAS- number: 124-38-9

ATC-code: V03AN02

PubChem: 280

Gas supplied in accordance to iSi Spec. TLV.0192.e / E290 - 3.5 (99.95% CO<sub>2</sub>) USP, ISBT

Gas density at 0.1 MPa	1,836 kg/m <sup>3</sup> at 20° C	0,115 lb/cu ft at 68° F
Relative density (air=1)	1,53 at 20° C	1,53 at 68° F
Critical temperature	31° C	88° F
Molecular weight	44,01	
Appearance vapour	colourless	
Appearance liquid	colourless	
Appearance solid	transparent white	
Odour	slightly pungent	
Taste	acidic/biting	
Fire Hazard	non-flammable	
Toxicity	non-toxic, in high concentrations may cause asphyxiation recommended max. 0.5% v/v for continuous working conditions	

#### 5 General product information

Customs tariff no.: 2811 21 00

Safety data sheet: A separate Safety Data Sheet from the supplier of CO<sub>2</sub> is available.

#### 6 Warning notices and application

Use soda siphons and chargers only in strict accordance to safety instructions and operating manuals.

- Only use iSi CO<sub>2</sub> chargers in combination with iSi Soda siphons and iSi carbonating systems.
- Do not inhale. Misuse can be physically harmful and dangerous to your health. See toxicity note above.
- Do not use for any other purpose.
- Keep cool and dry. Do not heat. Keep out of sun and temperatures above 50°C (122°F).
- Chargers are under pressure.
- Never dispose of full chargers.
- Never ever use force.
- Keep out of reach of children.
- Keep the packaging until use of last charger.
- Recycle empty chargers and packaging.
- Non-refillable.

## **7 Minimum durability**

The packaging of the iSi soda chargers is marked with a “best before” date. Although CO<sub>2</sub> is unperishable, the “best before” date is defined with 5 years after packing. This will avoid exceeded storage time which could lead to quality and hygiene problems.

## **8 Storage**

CO<sub>2</sub> filled chargers are not classified as dangerous goods, therefore it is not necessary to store them as dangerous goods.

Protect from sunlight. Storage temperature limit: +50°C (122°F)

Store in dry place. Do not heat.

## **9 Cylinder marking and traceability**

Each iSi soda charger is marked with an alphanumeric number to ensure the traceability and to increase the product safety (see also directive 2011/91/EU). In addition, each cylinder is printed with the iSi logo, CO<sub>2</sub>, country of production, nominal filling quantity and recycling symbol. The recycling symbol is intended to indicate the recycling of valuable raw materials.

## **10 Transportation**

### **10.1 Air transportation**

Air Transport is in accordance with IATA and Special Provision A98 restricted possible.

Special Provision A98 states: "Aerosols, gas cartridges and containers, small, containing gas with a capacity of not more than 50 ml, which do not contain any components subject to these instructions, other than a division 2.2 gas, are not subject to these instructions, unless their release could do so, cause extreme annoyance or discomfort to crew members to prevent proper performance of assigned duties.

The words “NOT RESTRICTED” and “SPECIAL PROVISION A98” must appear on airway bills.

### **10.2 Straßen-, Zug- und Seetransport**

Chargers filled with Carbon Dioxide (CO<sub>2</sub>) are for road and train transport according to ADR/RID, for sea transport according to IMDG and internationally according to UN Model Regulation in accordance with UN 2037, Special Provision 191 not subject to the requirements of these regulations.

Special provision 191 states: "Small vessels with a capacity of 50 ml or less, which contain only non-toxic components, are not subject to this regulation."

Unlimited transportation is allowed.

## **11 Reach-Regulation**

Soda chargers are classified according to EU 178/2002 as food respectively food additive and fulfil all requirements of this regulation. Products from EU 178/2002 are expressly excluded from the REACH regulation. See regulation EG 1907/2006/REACH, title I/chapter 1/ article 2/ clause 5b and 6d.

12 Manufacturing process

