Producer	iSi Gmbh
Address	Kürschnergasse 4, A-1210 Vienna

Name of product	**Article-no.:**
8,4g (11,4ml) carbon dioxide (CO_2) chargers	**0003x, 0004x, 0006x, 0007x, 0013x**

8,4g (11,4ml) carbon dioxide chargers CO_2

Table of Contents

1 Description

1.1 Use

A disposable steel cylinder containing carbon dioxide at high pressure. The contents are released by piercing of the metal cap. Principal use is in conjunction with appliances designed for carbonating water.

2 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^3
Net weight of CO_2:	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

DIMENSION	METRIC UNITS	US / IMPERIAL UNITS
Filling density:	max. 0,75 kg/l	max. 0,434 oz/in³
Bursting pressure:	> 50 MPa	> 7.250 lbf/in²
Test pressure	24,4 MPa at 65°C	3.539 lbf/in² at 149°F

Pressure/Temperature Characteristics at a filling density of 0.75 kg/litre:	5,7 MPa at 20° C	827 lbf/in² at 68° F
	18,0 MPa at 50° C	2.611 lbf/in² at 122° F
	24,4 MPa at 65° C	3.539 lbf/in² at 149° F
	26,5 MPa at 70° C	3.843 lbf/in² at 158° F
	38,8 MPa at 100° C	5.627 lbf/in² at 212° F
	43,0 MPa at 110° C	6.237 lbf/in² at 230° F

3 Description of gas

Carbon dioxide, CO_2
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% CO2) USP, ISBT

Gas density at 0.1 MPa	1,836 kg/m³ 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	

4 General product information

Customs tariff no.: 2811 21 00

Safety data sheet: A separate Safety Data Sheet from the supplier of CO_2 is available.

5 Warning notices and application

Use soda siphons and chargers only in strict accordance to safety instructions and operating manuals.
Only use iSi CO_2 chargers in combination with iSi Soda siphons.
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.

6 Minimum durability

The packaging of the iSi soda chargers is marked with a "best before" date. Although CO_2 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.

7 Storage

CO_2 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.

8 Traceability

Each iSi soda charger is marked with an alphanumeric number in order to ensure the traceability and to increase the product safety (see also directive 2011/91/EU).

9 Transportation

9.1 Air transportation

According to IATA a transport is possible to a limited extent.

9.2 Road, train and sea transportation

Chargers filled with Carbon dioxide are for road and train transport according to ADR/RID and for sea transport according to IMDG special provision 191 and internationally according to UN Model Regulation special provision 191 not classified as dangerous goods:

The special provision 191 stipulates: "Receptacles, small, with a capacity not exceeding 50 ml containing only non-toxic constituents are not subject to these Regulations."

10 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 expressively excluded from the REACH regulation. See regulation EG 1907/2006/REACH, title I/chapter 1/ article 2/ clause 5b and 6d.

11 Manufacturing process