Producer	iSi GmbH
Address	Kürschnergasse 4, A-1210 Vienna

Name of product	**Article-no.:**
8,4g (11,4ml) nitrous oxide (N_2O) chargers	**0702x, 0703x, 0715x, 0724x, 0745x, 0718x, 0712x**

8,4g (11,4ml) nitrous oxide chargers N_2O

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1 Description

Silver-purple N2O Charger containing 8.4g (11.4ml) of nitrous oxide.
Disposable steel cylinder containing N_2O under high pressure. The contents are released by piercing the metal cap.

iSi Professional 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

It is used in conjunction with equipment for making dairy and non-dairy whipped cream, desserts, foams, sauces, and soups. Max. liquid capacity in the Cream Whipper 0.5 l per cylinder.

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

N_2O complies with the requirements of regulation (EC) 231/2012 and the requirements of the regulation (EC) 1333/2008.

iSi N_2O cylinders are registered by NSF as a NSF Component.

3 Technical data

External surface: lacquered, colour silver-purple

Sealing method: pierceable metal cap with a sealing, crimp closed onto neck-opening of charger

Material of body: special deep drawing steel

Details and tolerances are given in the customer-drawing 60117002.

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:	0,4 mm	0.016 in

Internal Volume (approx.)	11,4 ml	0.70 in^3
Net weight of N_2O:	8,4 g	0.296 oz
Tare wt. of charger (approx.):	20,1 g	0.709 oz
Gross wt. of charger (approx.):	28,5 g	1.005 oz
Filling density:	max. 0,75 kg/l	max. 0.434 oz/in^3
Bursting pressure:	> 50 MPa	> 7.250 lbf/in^2
Test pressure	22,8 MPa at 65°C	3.307 lbf/in^2 at 149°F

Pressure/Temperature Characteristics at a filling density of 0.75 kg/litre:	5,2 MPa at 20°C	754 lbf/in ² at 68°F
	16,0 MPa at 50°C	2.321 lbf/in^2 at 122°F
	25,1 MPa at 70°C	3.640 lbf/in^2 at 158°F
	38,7 MPa at 100°C	5.613 lbf/in^2 at 212°F
	43,3 MPa at 110°C	6.280 lbf/in^2 at 230°F

4 Description of gas

Nitrous oxide, N_2O (other description: laughing gas)
Approved food additive: E942 according to EC directive no. 231/2012
Einecs-number: 233-032-0
CAS- number: 10024-97-2
ATC- code: N01AX13
PubChem: 948

Gas supplied in accordance to iSi Spec. TLV.1019.e / E942 (99% N2O) USP, EU.PH.

Gas density at 0.1 MPa	1,836 kg/m³ at 20° C	0.115 lb/ft³ at 68°F
Relative density (air=1)	1,53 at 20° C	1,53 at 68° F
Critical temperature	36,5° C	98° F
Molecular weight	44,013	
Appearance vapour	colourless	
Appearance liquid	colourless	
Appearance solid	transparent white acicular crystals	
Odour	mildly sweet	
Taste	mildly sweet	
Fire Hazard	non-flammable, oxidizing	
Toxicity	non-toxic, in high concentrations may cause asphyxiation, recommended maximum 0.01% v/v for continuous working conditions.	

5 General product information

Customs tariff no.: 2811 29 30

Safety data sheet: A separate Safety Data Sheet from the supplier of N_2O is available.

6 Warning notices and application

Use cream whippers and chargers only in strict accordance with safety instructions and operating manuals.

- Only use iSi cream chargers in combination with iSi cream whippers.
- Do not use for any other purpose. Do not inhale. Misuse can be physically harmful and dangerous to your health. See note above regarding information on toxicity.
- 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 iSi cream chargers is marked with a “best before” date, according to EU 1169/2011. Although N_2O 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

N_2O 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 a dry place. Do not heat.

9 Cylinder marking and traceability

Each iSi cream 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). In addition, each cylinder is printed with the iSi logo, N_2O, 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

According to IATA transport of an oxidizing agent like N_2O is forbidden.

10.2 Road, train and sea transportation

Chargers filled with Nitrous Oxide 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.

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.”

11 Reach-Regulation

Cream 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.

12 Manufacturing process