

**Product information – 8,4g (11,4ml) nitrous oxide chargers
N₂O**

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Producer iSi GmbH
Address Kürschnergasse 4, A-1210 Vienna

Name of product	Article-no.:
8,4g (11,4ml) nitrous oxide (N ₂ O) chargers	0702x, 0703x, 0715x, 0724x, 0745x, 0718x, 0712x



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1 Description

1.1 Use

A disposable steel cylinder containing nitrous oxide at high pressure. The contents are released by piercing the metal cap. Principal use is in conjunction with appliances designed for producing whipped cream, desserts, foams, sauces and soups. Max. infused quantity 0.5l per charger.

2 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 ₂ O:	8,4 g	0.296 oz
Tare wt. of charger (approx.):	21,1 g	0.74 oz

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DIMENSION	METRIC UNITS	US / IMPERIAL UNITS
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

3 Description of gas

Nitrous oxide, N₂O (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.0193.e / E942 (99% N₂O) USP, EU.PH.

Gas density at 0.1 MPa	1,836 kg/m ³ at 20° C	0.115 lb/ft ³ 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.	

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4 General product information

Customs tariff no.: 2811 29 30

Safety data sheet: A separate Safety Data Sheet from the supplier of N₂O is available.

5 Warning notices and application

Use cream whippers and chargers only in strict accordance to 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.

6 Minimum durability

The packaging of iSi cream chargers is marked with a “best before” date, according to EU 1169/2011. Although N₂O 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

N₂O 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.

8 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).

9 Transportation

9.1 Air transportation

According to IATA transport of an oxidizing agent is forbidden.

9.2 Road, train and sea transportation

Chargers filled with Nitrous Oxide 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

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

11 Manufacturing process

