

**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 |



CULINARY

8,4g (11,4ml) nitrous oxide chargers N₂O



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1 Description

Silver-purple N₂O Charger containing 8.4g (11.4ml) of nitrous oxide. Disposable steel cylinder containing N₂O 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.

The N₂O complies with the requirements of the regulation (EC) 231/2012 and the requirements of the regulation (EC) 1333/2008.

iSi N₂O cylinders are registered by NSF as a NSF Component.



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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 ₂ O: | 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 |

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4 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. | |

5 General product information

Customs tariff no.: 2811 29 30

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

6 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.

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7 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.

8 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.

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, N₂O, 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 is forbidden.

10.2 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.”

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 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

