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## Medical Nitrous Oxide E.P.

### Base anaesthetic and freezing agent

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Nitrous Oxide is a non-flammable, colourless oxidising gas with a slightly sweetish taste and odour. It vigorously supports combustion of materials which will not normally burn in air. Nitrous Oxide is a Schedule 4 drug for Therapeutic use.

**Uses** Nitrous Oxide is widely used as a base anaesthetic generally supplemented with either potent volatile or intravenous anaesthetic agents. These supplements are required in approximately half of their normal anaesthetising dose because of the anaesthetic effect of the Nitrous Oxide. It is used extensively for relative analgesia and as a freezing agent in cryosurgery.



Ultramarine shoulder

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**Indications** Nitrous Oxide is indicated in adults and children for general anaesthesia (usually as an adjuvant to other volatile or intravenous anaesthetics) and analgesia (with Oxygen) e.g. dentistry and obstetrics.

**Contraindications**

- Should not be administered without the required level of Oxygen (at least 30%)
- Hypersensitivity to Nitrous Oxide or any other gas component is contraindicated
- Should not be used with any condition where air is entrapped within a body
- Nitrous Oxide should not be used on intoxicated or heavily sedated patients
- Where there is prolonged exposure, monitoring of peripheral blood for features of megaloblastic anaemia and leucopenia is recommended

**Precautions**

- Worksafe exposure standard TLV-TWA is 25 ppm as an 8 hour time weighted average
- For gas withdrawal use cylinder upright
- Liquid Nitrous Oxide presents a low temperature hazard and should not be allowed to contact the skin or clothing
- Nitrous Oxide is a simple asphyxiant in the absence of Oxygen. Classified as hazardous according to the criteria of Worksafe Australia
- Scavenging of waste Nitrous Oxide gas should be used to maintain levels to below the 25 ppm exposure limit

**Dosage and Administration** Nitrous Oxide is inhaled through a face mask or tracheal tube by means of an anaesthetic apparatus. The gas is breathed in by the patient and absorbed through the lungs. Nitrous Oxide should only be administered by medical personnel trained in the appropriate techniques. Cylinder should only be used in conjunction with Medical Nitrous Oxide gas pressure regulators.

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## Classifications

### Compressed

1070 UN NUMBER 114 AUST. MSDS

2.2, 5.1 CLASS 109 N.Z. MSDS

### Liquid

2201 UN NUMBER 121 AUST. MSDS

2.2, 5.1 CLASS 109 N.Z. MSDS

## AUST. Specifications

### Medical Nitrous Oxide E.P. (AUSTR 34466)

#### Component – (nominal) Compressed and Liquid

Nitrous Oxide > 98.0% (gas)

#### Impurities (max)

Carbon Dioxide < 300 ppm

Carbon Monoxide < 5 ppm

N<sub>2</sub>O/NO < 2 ppm

Moisture < 67 ppm

#### Liquid Supply

Cryogenic storage vessels of capacities from 130 m<sup>3</sup> to 600 m<sup>3</sup>

#### Liquid Order Code

631

## AUST. Order Codes

Cylinders	Contents (Litres)	Weight (kg)	Approximate Gauge Pressure kPa (g) at 15°C
610C	935	1.75	4,700
610D	3,520	6.6	4,700
610E	8,970	16.8	4,700
610G	18,690	35.0	4,700
610F8	124,400	233	4,700

#### Cylinder Outlets

AS 2473 Fig. 13 Pin Index

## N.Z. Specifications

### Medical Nitrous Oxide E.P. (TT50-4008)

#### Components – (nominal) Compressed and Liquid

Nitrous Oxide ≥ 98%

#### Impurities (max)

Carbon Dioxide < 300 ppm

Carbon Monoxide < 5 ppm

N<sub>2</sub>O/NO < 2 ppm

Moisture < 67 ppm

## N.Z. Order Codes

Cylinders	Weight (kg)
190A	1.99
190D	6.60
190G	33.9

#### Cylinder Outlets

AS 2473.3 Fig. 13 Pin Index

## Equipment

Description	Inlet Fitting	Part Number AUST	Part Number NZ
Nitrous Oxide Regulator Series-0	Pin Index	518808	CW518808

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