

# Nitrogen (Oxygen Free)

PRODUCT: NITROGEN MSDS NR: 300-00-0023 BOC VERSION: 1.04 DATE: 28/09/06

## 1 IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY

<b>Product name</b>	Nitrogen (Oxygen Free)
<b>Chemical formula</b>	N <sub>2</sub>
<b>Company identification</b>	See end of page 2.
<b>Emergency phone Nos</b>	See end of page 2.

## 2 COMPOSITION/INFORMATION ON INGREDIENTS

<b>Substance/ Preparation</b>	Substance
<b>Components/ Impurities</b>	Contains no other components or impurities which will influence the classification of the product.
<b>CAS Nr</b>	7727-37-9
<b>EEC Nr (from EINECS)</b>	231-783-9
<b>Specification</b>	
Nitrogen (Oxygen Free)	99.998% minimum (Specification includes argon) Conforms to BS4366

## 3 HAZARDS IDENTIFICATION

Compressed gas.  
In high concentrations may cause asphyxiation.

## 4 FIRST AID MEASURES

<b>Inhalation</b>	In high concentrations may cause asphyxiation and death. Symptoms may include loss of mobility/consciousness.  Victim may not be aware of asphyxiation.  Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
<b>Ingestion</b>	Ingestion is not considered a potential route of exposure.

## 5 FIRE FIGHTING MEASURES

<b>Specific hazards</b>	Exposure to fire may cause containers to rupture/explode. Inform Fire Brigade. Non flammable.
<b>Hazardous combustion products</b>	None.
<b>Suitable extinguishing media</b>	All known extinguishants can be used.
<b>Specific methods</b>	If possible, stop flow of product. Move away from container and cool with water from a protected position.
<b>Special protective equipment for fire fighters</b>	In confined space use self-contained breathing apparatus.

## 6 ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation. Post warning notices.
<b>Environmental precautions</b>	Try to stop release if safe to do so.
<b>Clean up methods</b>	Ventilate area.

## 7 HANDLING AND STORAGE

Suck back of water into the container must be prevented. Do not allow backfeed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact BOC if in doubt. Refer to BOC container handling instructions. Keep container below 50°C in a well ventilated place.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Personal protection</b>	Ensure adequate ventilation.
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## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Molecular weight</b>	28
<b>Melting point</b>	-210°C
<b>Boiling point</b>	-196°C
<b>Critical temperature</b>	-147°C
<b>Relative density, gas</b>	0.97 (air= 1)
<b>Relative density, liquid</b>	Not applicable
<b>Vapour Pressure 20°C</b>	Not applicable
<b>Solubility mg/l water</b>	20 mg/l
<b>Appearance/Colour</b>	Colourless gas
<b>Odour</b>	No odour warning properties

## 10 STABILITY AND REACTIVITY

<b>Stability and reactivity</b>	Stable under normal conditions.
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## 11 TOXICOLOGICAL INFORMATION

<b>General</b>	No known toxicological effects from this product.
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## 12 ECOLOGICAL INFORMATION

<b>General</b>	No ecological damage caused by this product
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**SAFETY  
DATA  
SHEET**

**13 DISPOSAL CONSIDERATIONS**

**General** Do not discharge into any place where its accumulation could be dangerous. To atmosphere in a well ventilated place. Contact BOC if guidance is required.

**14 TRANSPORT INFORMATION**

**Proper Shipping Name** Nitrogen, Compressed  
**UN Nr** 1066  
**Class/Div** 2.2  
**ADR/RID Classification Code** 1A  
**ADR/RID Hazard Nr** 20  
**Labelling ADR** Label 2.2: non flammable non toxic gas.  
**Other transport information** Avoid transport on vehicles where the load space is not separated from the driver's compartment.  
 Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.  
 Before transporting product containers ensure that they are firmly secured and:  
 - cylinder valve is closed and not leaking.  
 - valve outlet cap nut or plug (where provided) is correctly fitted.  
 - valve protection device (where provided) is correctly fitted  
 - adequate ventilation.  
 - compliance with applicable regulations.

**15 REGULATORY INFORMATION**

**Number in Annex I of Dir 67/548** Not included in Annex 1.  
**EC Classification** Not classified as dangerous substance.  
**Labelling of cylinders - Symbols** Label 2.2: non flammable non toxic gas.

**16 OTHER INFORMATION**

Ensure all national/local regulations are observed.  
 Asphyxiant in high concentrations.  
 Keep container in well ventilated place.  
 Do not breathe the gas.  
 The hazard of asphyxiation is often overlooked and must be stressed during operator training. Users of breathing apparatus must be trained.  
 This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.  
 Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out. Do not use any other gas as a substitute for nitrogen.  
 Always leak check cylinders when first collected, delivered or used, using an approved leak detection fluid.  
 Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.  
 For further safety information please refer to "Safety Under Pressure" and "Guidance for carriage of gas cylinders on vehicles", both of which are available from your local BOC outlet.

**CYLINDER CHARACTERISTICS**

Cylinder size	Max Fill Pressure at 15°C Bar	Approx. Dimensions incl. valve and guard where supplied (mm)	Approx. Gross Cylinder weight (kg)	Manifolded Cylinder Pallets (MCP)	Max Fill Pressure at 15°C Bar	Approx. Dimensions incl. valve and guard where supplied (mm)	Approx. Gross Cylinder Weight (kg)
X	230	940 x 140	19	WW (15 x W)	230	1290 x 1810 x 840	1500
Y	230	930 x 203	40	WZ (15 x Z)†	300	1290 x 1810 x 840	1800
W	230	1460 x 230	85	*QW (12 x W)	230	2000 x 1035 x 850	1500
Z†	300	1640 x 230	77	*ZW (20 x W)	230	2080 x 1330 x 1090	2300
				*YW (16 x W)	230	2080 x 1120 x 1120	1950

\*Offshore only products.  
 †Outlet connection: NEVOC Type 30 @ 300Bar  
 •Outlet connection: 5/8" BSP female right hand cone recessed



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All BOC Safety Data Sheets are available online at [www.boc.com/uk/sds](http://www.boc.com/uk/sds)

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