

MilSpec MPOG[®]

NSN 4240-99-570-0565



Chemical oxygen generator providing 2600 litres of breathable oxygen

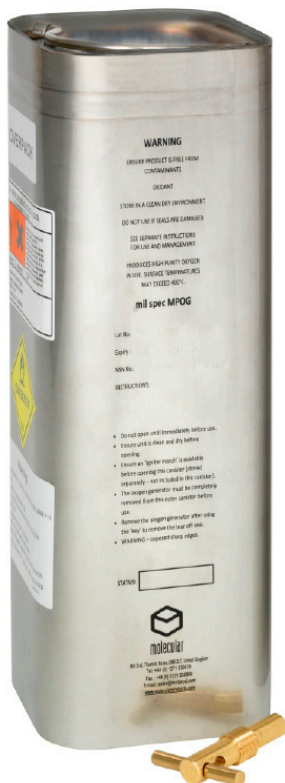
Applications

Safe supply of oxygen for critical life support and revitalisation in the following applications:

- Submarines
- Safe havens

Dimensions

Depth x width (mm)	133 x 133mm (width)
Height (mm)	400mm (height)
Weight (kg)	12.2kg +/- 0.5kg
Stowage volume (litre)	7 litres



Properties

The oxygen producing chemical is sodium chlorate/

- MilSpec MPOG oxygen generators require no maintenance during storage
- Associated with a high degree of safety due to absence of pressurised gases
- MPOGs are packed in an air tight stainless steel canister to protect from contaminants
- c400 litres oxygen per litre storage space @ NTP
- Ignition source – phosphorous match (supplied separately)
- Short time from stowage to operation
- Approx. 2.5 MJ of energy released per generator

How it works

Oxygen is produced by the thermal decomposition of sodium chlorate. This decomposition requires a significant amount of energy input to drive the chlorate decomposition. The source of this energy is the oxidation of iron powder (formulated with the sodium chlorate as a fuel). The initial energy input from the interaction between chlorate and ignition source is generated by the initiation mechanism, in this case a phosphorous match.



Specifications	Stowage	In Use
Depth x width (mm)	c133 x 133mm	c128 x 128mm
Height (mm)	c400mm	c385mm (418mm inc match)
Weight (kg)	12.2kg +/- 0.5kg	
Storage volume (litre)	c7 litres	
Oxygen generation (litre)		>2600 @ NTP
Delivery duration (minutes)		60 - 90
Purity of oxygen (%)		>98 +
Carbon monoxide (max. ppm)		< 50 ppm
Carbon dioxide (max. ppm)		<1000 ppm
Chlorine (max. ppm)		0.1 ppm
Sodium chloride - salt (max. mg/l)		<10
Starter mechanism (not interchangeable)	Phosphorous match supplied separately	

Additional information

Packaging, transportation and disposal

The generators are packed in a stillage (one stillage contains 25 oxygen generators), unless otherwise stated. Dimensions 80 x 80 x 70 cm, net weight 305kg, gross weight 380kg.

The units are not shipped with the starter mechanism. The units are classified as hazardous UN 1479 Oxidising Solid NOS, class 5.1 oxidiser, packing group II, and are packed in accordance with IATA regulations for airfreight (not passenger aircraft) or IMDG regulations for seafreight.

Spent oxygen generators are classified as non-hazardous and can be disposed of to landfill by a specialist waste contractor. Contact Molecular Products regarding the disposal of damaged or used devices, as these are still classified as Oxidizers 5.1 hazardous material.

NSN number of starter mechanism: 1375-99-667-8543

Quality

Molecular Products Ltd's aim is to manufacture chemical products which satisfy completely the needs of our customers. All products are rigorously tested to ensure conformance to the specification. Our activities comply to the requirements of ISO 9001.

Molecular Products Limited

Parkway, Harlow Business Park
Harlow, Essex, CM19 5FR, UK

T +44 (0)1279 445111
F +44 (0)1279 401231

E sales@molprod.com
W www.molecularproducts.com

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