

# MineSpec MPOG™



Chemical oxygen generator providing 2600 litres of breathable oxygen

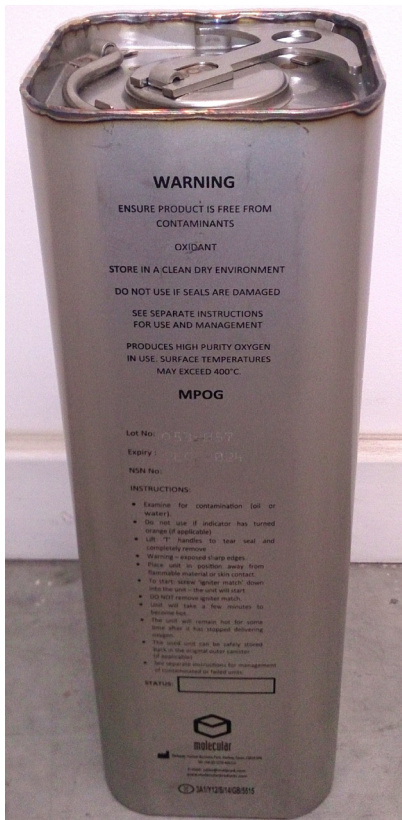
## Applications

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

- Enclosed environments
- Safe havens

## Dimensions

Depth x width (mm)	128 x 128mm
Height (mm)	385mm
Weight (kg)	11kg
Stowage volume (litre)	6.4 litres



## Properties

The oxygen producing chemical is sodium chlorate.

- MineSpec MPOG oxygen generators require no maintenance during storage
- The unit is started with a phosphorous match, which is supplied separately
- Based on a proven design it produces c2600 litres of breathable oxygen @ NTP over 60 - 90 minutes
- Associated with a high degree of safety due to the absence of pressurised gases
- c400 litres oxygen per litre storage space @ NTP
- 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.



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## Specifications

Depth x width (mm)	128 - 128 mm
Height (mm)	385 mm
Weight (kg)	Circa. 11 kg
Storage volume (litre)	6.4 litres
Oxygen generation (litre)	>2600 @ NTP
Average delivery duration (minutes)	60 - 90
Purity of oxygen (%)	>98 +
Carbon monoxide (max. ppm)	50 ppm average
Carbon dioxide (max. ppm)	1000 ppm average
Chlorine (max. ppm)	0.1 ppm average
Sodium chloride - salt (max. mg/l)	<10
Starter mechanism (not interchangeable)	Phosphorous match supplied separately

## Additional information

### Packaging, transportation and disposal

Two generators are packed in to a box and each box is stacked on to a pallet. Each box has dimensions circa. 298 x 153 x 415 mm.

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.

### 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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