

# ROG



Rugged oxygen generator providing a minimum of 90 litres of breathable oxygen

## Applications

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

- First responders / emergency response

## Dimensions

Depth x width (mm)	115 x 115 mm
Height (mm)	284 mm
Weight (kg)	2.3 kg



## Properties

- The oxygen producing chemical is sodium chlorate
- Self contained chemical oxygen generator requires no maintenance during storage
  - The unit is started with an integrated phosphorous match
  - Based on a proven design it produces a minimum of 90 litres of breathable oxygen @ NTP over approximately 15 minutes
  - Associated with a high degree of safety due to the absence of pressurised gases
  - Resistant to shock and vibration
  - Suitable for use at altitudes of up to 20,000 feet
  - Portable and easy to use
  - Handheld operation
  - Unpressurised and non-explosive
  - Cool flow gas technology

## 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 primer is generated by the initiation mechanism, in this case a phosphorous match.

## Specifications

Depth x width (mm)	115 mm
Height (mm)	284 mm
Weight (kg)	2.3 kg
Outer temperature of unit (°C)	≤ 45°C
Oxygen generation (litre)	≥ 90
Minimum delivery duration (minutes)	15
Purity of oxygen (%)	≥ 99.5 %
Carbon monoxide (max. ppm)	5 ppm average
Carbon dioxide (max. ppm)	300 ppm average
Chlorine (max. ppm)	0.2 ppm average
Operating & storage temperature range	-13 to 40 °C
Starter mechanism	Integrated
Average flow rate (litres per minute)	≥ 6
Shelf life (years)	3

## Additional information

### Packaging, transportation & disposal

Oxygen generators are classified as hazardous UN 3356, class 5.1 oxidiser, packed to meet the standards of packing group II, and are packed in accordance with IATA regulations for airfreight (not passenger aircraft) or IMDG regulations for seafreight (special rules apply in the USA).

If possible, recycle to supplier or approved recycling company. If not (e.g. designated as waste), dispose of in accordance with national and local authority regulations, e.g. The Hazardous Waste (England & Wales) Regulations 2005. Refer to SDS for information on chemical composition.

### 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 and 13485.

The ROG is FDA 510K cleared as a class II over the counter (OTC) portable oxygen generator.

The ROG has undergone a range of MIL-STD-810G test protocols to demonstrate air worthiness and suitability of the device in a variety of extreme environmental conditions.

## Molecular Products Limited