

**MANUFACTURER OF TECHNICAL AEROSOLS AND PRODUCTS FOR INDUSTRY
PROCESSES - MRO - MAINTENANCE
ALTERNATIVE SOLVENTS 100% SAFE**

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GAS LEAK DETECTION SPRAY

**ANTI-CORROSION, ANTI-OXIDATION, SUITABLE FOR ALL MATERIALS
GELATINISED TO ALLOW DETECTION IN ELEVATED SPACES AND VERTICAL SURFACES
CAN BE USED ON PIPES AND PURE OXYGEN CONNECTIONS UP TO 150 bar
HIGHLY SENSITIVE, PRECISELY LOCATE LEAKS
FAR EXCEEDS PERFORMANCE OF AN ELECTRONIC SENSOR
iBiotec® DETECT 1000 SPRAY**

DESCRIPTION

DETECT 1000 leak detector is designed to enable professionals to carry out all types of test. It is formulated to ensure ideal operation with high sensitivity, and also for macro-leaks requiring high surface tension. Usable on all gases except pure oxygen at high pressure (> 150 bar). All fluids (liquids and gases), even if they are not pressurised, naturally seek to escape from a container, especially if it has even the slightest of discontinuities. The result is a leak. The integrity of a container is thus its ability to resist the flow of the fluid enclosed within it. In practice this function is more easily defined by its converse, namely the permeability of the container, i.e. the extent to which it allows its contents to escape or leak. It is easy and convenient to distinguish between two types of integrity for a container, depending on the surface continuity with the fluid:

Volumetric integrity, relating to the continuous surfaces of the container.

Integrity of an assembly or link, i.e. at the join between two continuous surfaces, broken down into static integrity and dynamic integrity during translation or rotation.

Note that it is impossible to obtain theoretically perfect integrity (especially with gases), due to the molecular nature of fluids.

"Absolute integrity" is an unrealistic statement that should be avoided. This does not exclude very high integrity levels, though; these may be defined in three classes: strict, relative, controlled.

It is, however, important to realise that a leak generally contains a random component, and that it often evolves over time. The leak will not be the same at the start of the mechanism's life cycle as at the end. Accordingly, it is always useful to specify the maximum acceptable limits and to carry out continuous checks.

This detection aerosol can be used to measure all gas leaks, and is categorised as a general method not requiring special equipment.

It makes use of the spray and bubble method. The cost of a test is low compared to the investment. The method is highly reliable and offers excellent sensitivity; it can be used on any site.

Note that in extreme cases, if the pressure inside the bubble is close to atmospheric pressure, the bubble may only start to form once the pressure from the leak is sufficient to overcome the surface tension.

PROPERTIES

Highly dependable leak testing fluid.
Suitable for use on pure oxygen up to 150 bar.
Non-flammable.

FIELDS OF USE

Suitable for leak testing of volumes, assemblies and static or dynamic connections. Sleeves, screwed assemblies, welds, gaskets, hoses, crimped couplings, quick couplings, pressure gauges, valves, hoses, compressor tanks, radiators, manifolds, low temperature coils, air conditioners, heat exchangers, hollow bodies, assemblies with gaskets.

Gas cylinders, diving equipment, braking systems, tyres, pressure relief valves.

Also used to detect porous ducts, hoses and pipework.

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	STANDARD	VALUE	MEASUREMENT (UNIT)
Appearance	Visual	Liquid, clear	-
Colour	Visual	Amber	-
Odour	-	None	-
Density at 25°C	NF EN ISO 12185	1002	g/l
Concentration of active ingredients	-	97	%
pH (neat)	NF T90-008	8.3	-
Flow Time Viscosity Cup 3	NF EN ISO 2431	23	s
Refractive index	ISO 5661	1.351	Indicator
Freezing point	ASTM D 97	-11	°C
Hydrocarbon content	LPCH	0	%
Phosphate Content	LPCH	0	%
Chlorine content	GCMS	0	ppm
Heavy metals and metalloid content	GCMS	0	ppm
COD Chemical Oxygen Demand	NFT 90101	6830	mgO ₂ /l
BOD 5 Biological Oxygen Demand after 5 days	NF EN 1899-1	1120	mgO ₂ /l
TSS Total Suspended Solids	NF EN 872	<2	mg/l
VSS Volatile Suspended Solids		<0.2	mg/l
Total Kjeldahl Nitrogen (TKN)	NF EN 25663	405	mgN/l
ThOD Theoretical Oxygen Demand (Seawater)	ISO 15705	7300	mgO ₂ /l
Additional characteristics Surface tension at 20°C	ISO 6295	21.9	Dynes/
Refractive index	ISO 5661	1.3420	-



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