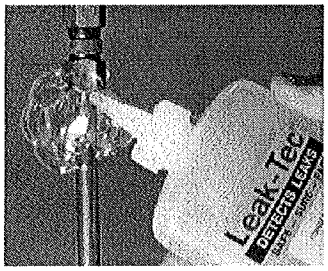
american gas & chemical co. ltd.
DETECTION TECHNOLOGY

Leak-Tec Thin Film Bubble Testing Solutions



About Thin Film Leak Testing
Thin film bubble testing is the most common and one of the most reliable methods of detecting and locating leaks. Thin film leak testing has many inherent advantages:

- It is easy to use and requires little operator training.
- It is inexpensive to use and not subject to break down like complex instrumentation.
- It operates immediately and continues to give indications.
- It can be extremely sensitive, finding leaks down to 1×10^{-6} (.000001) standard cc/second. The equivalent of losing a pound of Freon every 2,700 years.

With the increasing importance of thin film leak testing, the old time standby - soap and water - is gone forever. Soap and water has low sensitivity and tends to obscure small leaks by foaming when applied. Many industrial companies and organizations, such as the USAF, ASTM and ASME have banned the use of soap. These companies and organizations use and recommend only synthetic bubble solutions like Leak-Tec.

Over the last thirty-five years, Leak-Tec bubble solutions have become synonymous with quality leak testing. With over 5,000 customers (including almost all of the Fortune 500 Industrials) depending upon us, we are called upon repeatedly to solve difficult leakage problems. As a result, we have developed and continue to improve upon the most comprehensive line of field proven bubble solutions. With this background of development technology, our products represent the forefront in leak testing science.

Leak-Tec formulas consist of mixtures of stable synthetic surfactants with low surface tension and low interfacial tension on metals, whether clean, tarnished, oily or covered with oxidation products. Leak-Tec wets, spreads evenly and rapidly and responds to minute leaks with clusters of bubbles which collapse and re-form continually (the eye can see this far better than the gradual growth of one or two larger bubbles). Leak-Tec is approximately neutral (in the same range as good quality water), keeps well, is immune to bacterial action and does not develop sediment for any reason. Leak-Tec is no more corrosive than water and leaves no undesirable residue upon evaporation (e.g. allows paint to adhere well even if not wiped or flushed away). Leak-Tec is packaged for immediate and convenient use.

In addition to a complete line of scientifically developed formulas, we fully support our products with a comprehensive quality control program, detailed certifications, and process specifications. Our large stock and record for on time delivery makes us easy to deal with and

save you time.

The Formulas					
FORMULA#	APPLICATION	TEMPERATURE	CI*	SENSITIVITY	
16-OX	Gaseous Oxygen Systems (MIL-PRF-25567)	+35 to 160° F	V	$1x10^{-6}$cc/sec	buy now
72V	Vacuum Leaks & High Pressure	+35 to 170° F	V	$5x10^{-4}$cc/sec	buy now
112	Chlorine Systems: water purification	+35 to 160° F	IV	$1x10^{-5}$cc/sec	buy now
277	Polyethylene Pipes & rubber seals	+35 to 160° F	IV	$1x10^{-5}$cc/sec	buy now
277C	Refinery & Natural Gas Systems	+35 to 160° F	IV	$1x10^{-5}$cc/sec	buy now
277NE	Nuclear Applications; Dissimilar metal joints	+35 to 160° F	I, II, V	$1x10^{-6}$cc/sec	buy now
372E	General Purpose: Compressed air & stable gases	+35 to 160° F	IV	$1x10^{-5}$cc/sec	buy now
372G	Air-conditioning/Refrigeration Systems; Fire Extinguishers	-35 to 190° F	IV	$1x10^{-4}$cc/sec	buy now
372H	Very low temperature testing	-65 to 160° F	IV	$5x10^{-5}$cc/sec	buy now
OX-315	Liquid Oxygen Systems	+35 to 160° F	IV, V	$1x10^{-6}$cc/sec	buy now
OX-315IV	For Metal Corrosion Problems	+35 to 160° F	III	$1x10^{-5}$cc/sec	call
415	High Temperature Testing	+210 to 415° F	V	$5x10^{-5}$cc/sec	buy now
577V	Fluorescent & Vacuum Testing	+35 to 160° F	I, V	$1x10^{-5}$cc/sec	buy now
FM-1	Missile Fuel & Oxidizer Systems	+32 to 160° F	V	$1x10^{-6}$cc/sec	call
OX-65-C	Gaseous Oxygen Systems (Low Temperature) MIL-PRF-25567	-65 to 180° F	V	$1x10^{-5}$cc/sec	buy now

Corrosion Index (Because the mechanisms of corrosion are not always the same, Leak-Tec solutions have been formulated with different types of inhibitor systems. The following table defines the general guidelines for each index numeral:

I	Inhibits stress corrosion cracking of stainless steels, magnesium and titanium alloys
II	Inhibits electrolytic corrosion between dissimilar metals
III	Inhibits surface corrosion on cast iron and mild steels. This system is poisonous and is not required for most steels. It may even cause slight corrosion on aluminum, copper and brass.
IV	Inhibits normal corrosion on aluminum, copper, brass and on most metals.
V	Meets the corrosion and faying edge requirements of MIL-L-25567

Packaging Options

All Leak-Tec formulas except 72V are available in 4oz plastic squeeze bottles, gallons, and 55-gallon drums.

FORMULA# AVAILABILITY	4oz squeeze bottle	8oz squeeze bottle	8oz dauber bottle	10oz aerosol can	1-gallon jug	5-gallon pail	55-gallon drum
PACKING	-01	-02	-03	-18	-05	-06	-07

CODE:							
16-OX	*	*	*	*	*	*	*
72V				*			
112	*				*	*	*
277	*				*	*	*
277C	*				*	*	*
277NE	*				*	*	*
372E	*	*	*	*	*	*	*
372G	*	*	*	*	*	*	*
372H	*	*	*	*	*	*	*
OX-315	*				*	*	*
OX-315III	*				*		*
415	*	*	*	*	*	*	*
577V	*		*	*	*	*	*
FM-1	*				*	*	*
OX-65-C	*	*		*	*	*	*
72V-41	Available in 14oz aerosol can only						

Most Leak-Tec formulas are available immediately from stock.

ANSI Approved Specification
ASTM E515 Standard Method of Testing for Leaks Using Bubble Emission Techniques
Available from the American Society for Testing and Materials or
American Gas & Chemical Co. Ltd.