A complete family of gas leak detectors from the leaders in gas leak detection technology



- **Gas Leak Detector, the original market leader**
- **Fluorescent Gas Leak Detector, a fluorescent-colored leak detector**
- **Cal-Blue® Plus & Cal-Blue LT, a blue-colored multi-functional leak detector**

All three are freeze-protected and all are formulated for high temperature as well as low temperature applications

APPLICATION

Leak detection is a very important part of the service and maintenance of systems that use gases under pressure. The obvious application is the use of refrigerants in air conditioning and refrigeration. Others include natural gas for heating, nitrogen, oxygen, compressed air and CO2.

In fact, with the advent of new refrigerants and the Containment and handling that they require, gas leak detection has taken on a more significant role in daily HVACR service. And, there are several methods of leak detection tools available, including electronic devices, internal system dyes and chemical gas leak detectors.

Nu-Calgon has over 60 years of experience in the development of chemical gas leak detectors, and their products offer the service technician an accurate, reliable and economical service tool. They have the proper viscosity in order to remain on the surface and facilitate the formulation of the bubbles. And at the same time, they also are non-corrosive to the metal surfaces of the piping and fittings and are functional at low temperatures (freeze-protected) as well as high or elevated temperatures.

DESCRIPTION

Nu-Calgon has a complete family of gas leak detectors, each one having its own distinct features and benefits. Gas Leak Detector has been the market's premier chemical leak detector for nearly 60 years. It is available in 6 fl. oz. bottles (with dauber) and 1 gallon bottles. Cal-Blue Plus is the industry choice for an economical leak detector in quart spray bottles. It is also available in 6 oz bottle with dauber and 1 gallon bottles as well as in a low temperature version, Cal-Blue LT, in quarts and gallons. Fluorescent Gas Leak Detector has the same quality features as Cal-Blue Plus, and it is formulated with a fluorescent dye for ease of detection in bright light or sun light.

OXYGEN USE

Most chemical gas leak detectors are satisfactory for use on oxygen systems. Both Cal-Blue Plus and Fluorescent Gas Leak Detector can also be used on such a system.

Regular Gas Leak Detector, however, is usually not recommended for oxygen systems, particularly liquid oxygen. Because of the unique formulation that comprises Gas Leak Detector, including the raw materials that makes it viscous and freeze-proofed, it is precluded from use with oxygen.

IMPORTANT APPLICATION CHARACTERISTICS

Corrosivity

One of the most important features for a chemical gas leak detector is that it remain non-corrosive to the applied metal surface. Even after the technician wipes the fittings and joints, some residue of the leak detector will invariably remain, making it imperative that the product is non-corrosive. Poorly formulated products are typically soap, and soap contains ammonia which will attack brass and copper. Quality leak detectors like those made by Nu-Calgon are non-corrosive.

Viscosity

The important distinction here is thickness vs. viscosity. A thick product is certainly viscous but not necessarily a quality leak detector. Most “thick” products are usually inexpensive soaps, and soaps are both corrosive and poor at developing long-lasting bubbles. All Nu-Calgon leak detectors are viscous products, enabling them to remain on the metal surface and support long-lasting bubbles. And their viscosity’s are achieved without the use of soaps.

Versus UV Lights

One of the other leak detection tools used today is the internal fluorescent dye. This material is injected into a system, and leaks are ultimately detected through the use of a black light as it illuminates the fluorescent material.

Use of Cal-Blue Plus or Gas Leak Detector will not leave any residue (fluorescent) that would otherwise set off the black light, and are therefore the products of choice when testing a system with an internal fluorescent dye.

Freeze-protection

Top quality gas leak detectors will be formulated with ingredients such as alcohol, glycols or other compounds to lower the freeze point of the product as well as raise its boiling point. This can be important to the technician, either because low temperature applications are involved or because storage in low temperature environment could occur. And not only should the product be freeze-protected, it should also be freeze-thaw stable so if its freezing point is reached, it will remain functional after thawing. All Nu-Calgon leak detectors are freeze-protected and freeze-thaw stable. And in addition, the ingredients that accomplish this also enable the Nu-Calgon products to be used in high temperature applications.

Solids Content

Chemical leak detectors will be amine-based, caustic-based or made with a synthetic surfactant. Caustic-based as well as synthetic surfactant-based products are more economical to manufacture, but the result is a low-solids product that can be corrosive or exhibit poor foam stability. Nu-Calgon products are amine-based, and they exhibit excellent product integrity and foam stability.

GAS LEAK DETECTOR

- Safe and Dependable
- Non-corrosive
- Freeze-protected to -20°F
- High solids and low water content
- Suitable for high temperature use (up to 250°F)
- Detects leaks as small as 1/2 oz. per year

Gas Leak Detector is a straw-colored liquid with a Brookfield viscosity of 120 cps at 26°C. It is a synergistic formulation that produces a viscous film, detecting refrigerant leaks as small as 1/2 ounce per year. It is non-corrosive, non-ingurous, non-staining and harmless to skin.

It has a solids content over 60% indicating a low-water content, and a favorable freeze-point (-20°F). It is available in 1 gallon bottles as well as 6 fl. oz. bottles with dauber applicator. It can be applied to suspect joints, especially “hard to reach” locations, with the dauber applicator. This applicator’s rod is constructed of stainless steel; it will not corrode over time and the package will have years of shelf life.

Gas Leak Detector has been servicing the air conditioning, refrigeration industry since the mid 1950’s, perhaps being the first chemical leak detector in the industry. It is the most recognized and trusted chemical leak detector in the market.



PACKAGING

6 fl. oz. bottle w/dauber	4180-53

CAL-BLUE®PLUS

- High viscosity formulation to enhance contact time.
- Non-corrosive to metals.
- Two freeze-protected versions, Cal-Blue Plus (5°F) and Cal-Blue LT (-20°F).
- Can be used at temperatures up to 225°F.
- Will not effect Ultraviolet (black) lights.
- Long-lasting bubbles.
- Available in easy-to-use spray quart bottles and gallons.
- Suitable for all refrigerants, natural gas and oxygen.
- Sprayer is fully engaged in bottle. No need to hunt for loose sprayers.

Cal-Blue is a blue-colored, viscous liquid that is available in gallons, 6 oz bottles with daubers and easy-to-use quart spray bottles. A low temperature version, Cal-Blue LT, is also available.

This product is a complete gas leak detector. Not only does it detect the smallest leak, it also provides other significant features and benefits. It's high viscosity formula enables it to remain in contact with the applied surface for an extended period of time, thereby allowing the smallest of leaks to be detected. It is also non-corrosive to metal, and this is a significant feature as it helps to maintain the integrity of piping, tubing and fittings. Also, it does not effect Ultraviolet or "black lights". Use Cal-Blue Plus freely on systems with fluorescent dyes as it will not interfere with the subsequent use of ultraviolet light detection. Additionally, Cal-Blue Plus is freeze-protected to 5°F while the "LT" version is good to -20°F. Both are safe for use on most gases, including oxygen.

Cal-Blue is the complete leak detector for today's service technician: high viscosity, freeze-protected, oxygen-safe, non-corrosive and both formulations are available with a spray pump as well as in gallon containers. Regular Cal-Blue is also available in a pressurized spray and a 6 ounce bottle with a dauber.



PACKAGING

Cal-Blue Plus:

6 fl. oz. bottle w/Dauber	4182-53
7 oz. pressurized spray	4182-35
Quart bottle w/sprayer	4182-24
Gallon bottle	4182-08

Cal-Blue LT:

Quart bottle w/sprayer	4183-24
Gallon bottle	4183-08

FLUORESCENT GAS LEAK DETECTOR

- High viscosity formulation to enhance contact time.
- Non-corrosive to metals.
- Freeze protected to 5°F.
- Can be used at temperatures up to 225°F.
- Fluorescence for improved visibility.
- Long-lasting bottles.
- Suitable for all refrigerants, natural gas and oxygen.
- Available in easy-to-use spray quart bottle and gallons.
- Sprayer is fully engaged in bottle. No need to hunt for loose sprayers.

Fluorescent Gas Leak Detector is formulated just like Cal-Blue, but utilizes a fluorescent dye. It is a viscous and freeze-protected liquid that is available in gallons and easy-to-use quart spray bottles.

Like Cal-Blue, Fluorescent Gas Leak Detector is a complete product. Not only does it detect the smallest leak, it also provides other significant features and benefits. It's high viscosity formula enables it to remain in contact with the applied surface for an extended period of time, thereby allowing the smallest of leaks to be detected. It is also non-corrosive to metal, and this is a significant feature as it helps to maintain the integrity of piping, tubing and fittings. In addition, it is fluorescent-colored in order to facilitate visibility of bubbles in sunlight or bright lights. And it is freeze-protected as well as safe for use on most gases, including oxygen.

Fluorescent Gas Leak Detector is another complete leak detector for today's service technician: high viscosity, freeze-protected, oxygen-safe, non-corrosive and available in quart bottles with a spray pump as well as in gallon containers.



PACKAGING

8 oz. Bottle w/dauber	4184-53
Quart bottle w/sprayer	4184-24
Gallon bottle	4184-08

Product Description/Use Comparison

	Gas Leak Detector	Cal-Blue Plus	Cal-Blue LT	Fluorescent Gas Leak Detector
Color	Clear/Straw	Blue	Blue	Fluorescent
Viscosity	120 cps	150 cps	150 cps	150 cps
Freeze-Protected	Yes(-20°F)	Yes(+5°F)	Yes(-20°F)	Yes(+5°F)
High Temp. Usability	Yes(+250°F)	Yes(+225°F)	Yes(+225°F)	Yes(+225°F)
Solids Contents	66%	28%	40%	28%
Non-Corrosive	Yes	Yes	Yes	Yes
Ultraviolet Light Interference	No	No	No	Yes
Oxygen-Safe	No*	Yes	Yes	Yes
Packaging	6 oz. w/dauber 1 gallon	6 oz. w/dauber Quart w/sprayer 1 gallon	Quart w/sprayer 1 gallon	Quart w/sprayer 1 gallon

* Typically acceptable for gaseous oxygen; not recommended for liquid oxygen