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Bacharach Adds R514A Refrigerant Gas to its NDIR Sensor Products

New Kensington, PA – Bacharach Inc., a leading manufacturer of refrigerant gas leak detection and monitoring instruments, and combustion and emission analyzers, adds R514A to its gas library of detectable refrigerants as chiller applications within the refrigeration industry demand refrigerants with low GWP (Global Warming Potential). Bacharach’s proprietary NDIR (Non-Dispersive Infrared) technology allows its instrumentation to measure levels as low as 1 ppm of refrigerant, while maintaining high accuracy and enabling the early detection of refrigerant leaks.

“The calibration curve for R514A has now been added into the software for our Multi-Zone and Single Zone continuous refrigerant monitors as well as our portable spot leak detection devices. Our proprietary sensor technology allows us to create these curves quickly to keep up with development of new and better refrigerants. This enables the precise measurement of all refrigerants, including the new products like R514A, to maintain the high standards expected from Bacharach’s market leading sensor technology.” said Mr. Tom Burniston, Product Manager, Fixed Instruments. “Bacharach’s NDIR sensors allow for fast response times, long-sensor life, high accuracy, repeatability, minimal maintenance and no cross sensitivity,” he said.

About R514A

R514A is a refrigerant with a very low GWP of under 2 and is targeted as a replacement for R123 in centrifugal chiller applications. It is a blend of HFO 1336mzz(Z) (74.7%) with trans-1,2-dichloroethene (25.3%), a gas not previously used in refrigerants.

ASHRAE 34 classes R514A as a “B1” refrigerant, meaning that it is not flammable, but is classed as having higher toxicity, with an OEL (Occupational Exposure Limit) of 323ppm. This highlights the importance of the early
detection of refrigerant leaks which could be harmful, and reduce refrigeration system efficiencies.

**About Bacharach products accepting the new R514A refrigerant:**

1. **HGM-MZ** – Fixed leak monitor for up to 16 remote areas detecting refrigerant levels as low as 1 ppm. Configurations are also available to monitor CO₂ and NH₃.
2. **HGM-SZ** – Fixed leak monitor for one location to detect and measure CFC, HFC, and HCFC, leaks down to 1 ppm. Configurations are also available to monitor CO₂ and NH₃.
3. **PGM-IR** – Portable leak monitor for halogenated refrigerants or CO₂. Unaffected by changes in temperature and humidity, detecting limits as low as 1 ppm enabling quick, thorough inspections and leak surveys.
4. **H25-IR** – Industrial grade leak analyzer for white goods manufacturing, eliminates the need for a calibrated reference leak source while detecting CFC, HFC and HCFC refrigerants down to 0.03 oz/year (0.85 g/yr).

Bacharach continues its support of the cooling and refrigeration industries by the expansion of R514A to its library of refrigerant gasses; offering more gasses to be detected and monitored while assisting in the use of refrigerants less harmful to the environment.

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**About Bacharach**

Bacharach is a global leader in the design, manufacture, and service of combustion gas analysis and refrigeration leak detectors and monitoring instrumentation. Bacharach products make the heating, ventilation, air-conditioning and refrigeration (HVACR) industries safer, cleaner, and more energy efficient. Headquarters and manufacturing operations for combustion analyzers and infrared leak detection and monitoring instruments are located in New Kensington, PA. The company’s core applications are: heating, ventilating, air conditioning, chiller plants, food and beverage processing, supermarkets & food retail, conditioned occupied spaces, refrigerated storage, white goods manufacturing, boilers & generators, industrial appliances, commercial and industrial plants, power generation engines, commercial refrigeration and data rooms. Please visit [www.mybacharach.com](http://www.mybacharach.com) for additional information.