

P R E S S R E L E A S E

For Immediate Release

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Dangerous R-134a Contamination Found Worldwide Immediate call to check all R-134a Cylinders Worldwide for Contamination

Exton, PA (December 21, 2011). Neutronics has issued the following urgent "*Statement of Action*" to all industries using R134a refrigerant:

Statement of Action

After review of information provided by many reputable sources, Neutronics urgently advises that all industries using R-134a refrigerant immediately test all cylinders thought to be virgin R-134a (including new 30 pound cylinders). This can be done with a Neutronics Ultima ID DX or HV series Refrigerant Identifier. Any cylinder that is "failed" by the identifier or found to contain 100% R134a with ANY "Air" or "Non(NCG)" should be isolated. It has been reported that cylinders containing contaminated refrigerant are marked as "R-134a" and some have counterfeit name brand chemical company labeling. This contaminated refrigerant cannot be identified using standard pressure and temperature measurements of the cylinder.

Background

Several months ago, Neutronics Inc., Refrigerant Analysis Division, was engaged by the ocean going shipping industry to assist with a R-134a refrigerant contamination problem that reportedly resulted in several deaths and a significant interruption to ocean going transport. During the course of this activity, it was discovered that this dangerous refrigerant contamination problem was not isolated to a single industry but had potentially penetrated the R-134a refrigerant supply for applications in many global markets including automotive.

Much of the contaminated R-134a refrigerant has been shown to contain significant quantities of **R-40** (aka Methyl Chloride or Chloromethane). R-40 is extremely toxic, flammable and highly reactive when exposed to aluminum in that it forms a third, highly volatile compound. It is critical to note the safety concerns that R-40 is a harmful and dangerous material that is not suited for use in R-134a refrigeration air conditioning systems. Most, if not all of the contaminated R-134a has been found in counterfeit labeled

"virgin" R-134a cylinders. In one instance it was reported that "thousands" of 30 lb. R-134a refrigerant cylinders have been found to be counterfeits of name brand product. Other suspect virgin R-134a containers have also been found to contain large quantities of R-22 and R-12 refrigerants.

The vast majority of Neutronics manufactured refrigerant identifiers are configured for the detection of R-134a, R-12, R-22 and Hydrocarbons. **It is important to note that the ONLY acceptable readings on Neutronics Ultima ID DX or HV series refrigerant identifiers for a "virgin" R-134a cylinder are:**

R134a	100%
R12	0.0%
R22	0.0%
HC	0.0%
Air/Non	0.0%

No current or previous Neutronics R-134a identifier is/was designed for detection of R40 as a direct contaminant. Not all Neutronics refrigerant identifiers are suitable for safely detecting the presence of R-40 in R-134a (e.g. the "Mini ID R-134a" identifier is not suitable for R-40 detection). Neutronics has evaluated the performance of both current and legacy refrigerant identifiers to determine their suitability for use in testing cylinders with the suspect R-40 material. To date, all reported cases of "virgin" cylinder contamination have included at least 30%-40% R-40 in the cylinder.

A new reference chart published by Neutronics Refrigerant Analysis is now available on the Neutronics website that details the various Neutronics Identifiers currently in the field and how they should react when exposed to R-40 refrigerant. Interested parties should visit www.refrigerantid.com for more information. This information will be readily available on the home page.

As refrigerant identification equipment is widely used in the automotive service industry, Neutronics has determined that their "DX" model automotive refrigerant identifier that meets **SAE J1771** requirements can be used for testing "virgin" R134a cylinders to determine the possible presence of the R-40 contaminant.

Neutronics Vice President Peter Coll commented, "As far as R-134a contaminants are concerned, R-40 is about as bad as it can get. Neutronics Refrigerant Analysis will continue to work closely with SAE, AHR and all other pertinent organizations to help mitigate this very troublesome development."

For additional information, please contact Peter Halpern, Marketing Manager or Peter Coll, Vice President, Neutronics Inc., 456 Creamery Way, Exton, PA 19341, 610-524-8800, 610-524-8807(f), or toll-free 800-378-2287.
