



Changing State of Refrigerants – Digest 2018-7

Honeywell unveils a non-flammable, low GWP alternative to R-410A

Solstice N41 (R-466A)

On June 26th 2018, Honeywell unveiled Solstice N41 R-466A*. It is touted as the only Non-Flammable, Low GWP alternative to R-410A. This breakthrough product could allow the HVAC industry to phase-out R-410A without significant mechanical modifications, and would avoid code changes necessary to adopt other flammable alternative.

Why is this important:

Global Warming and Climate Change are the focus of regulatory changes worldwide. HFC refrigerants have been targeted as one key contributor to Global Warming.

R-410a has a Global Warming Potential (GWP) of 1924. Regulations are in place in Europe and are being adopted in the U.S. that will limit refrigerants in Air Conditioning equipment to 750 GWP or below. The timeline for implementing these regulations varies.

California is proposing an effective date of 1-1-2023. This has equipment manufacturers hustling to find a solution. The EPA has not yet weighted in on a timetable.

Solstice N41 (R466A*) is classified by ASHRAE as a A1 (non-flammable) refrigerant. Prior to this announcement, only A2, A2L, or A3 flammable refrigerants such as R-32, and R-290 (Propane) were capable of meeting this GWP goal.

Building and Fire Codes currently limit the charge size on A2, A2L, or A3 refrigerants to 150 grams (5.35 oz). As a consequence, significant code changes and safety requirements would be needed to permit use of these products on a larger scale.

Solstice N41 (R466A*) is being tested by compressor and equipment manufacturers and could be commercially available as early as 2019.

*R-466A is the provisional ASHRAE designation

For more info go to <http://www.rsd.net/refrigerantsuite/index.php> or call **800-245-8007 ex 00405**