

National Refrigerants, Inc.

Analytical Laboratory

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Refrigerant Analysis Report

Customer:	Johnson Controls	P.O. No.:	NRIHP
Address:	812 First State Blvd. Wilmington DE 19804	Refrigerant Type:	R-134a
Contact:	Kevin M. Fraze	Job Location:	DuPont Experimental E315
Telephone:	302-598-4688	System S/N:	
Fax:	kevin.m.fraze@jci.com	Sample ID#:	750RAGEFA 2
		Lab. Reference:	160218-71
		Date Rec.:	2/18/16

Analysis

		<u>Sample Results</u>	<u>AHRI-700 Spec.</u>
Identification	By Gas Chromatography	R-134a	_____
Moisture	parts per million by weight	19	10 Max. (1)
High Boiling Residue	per cent by volume	0.1	0.01 Max.
Acidity	parts per million (as HCl)	<0.2	1 Max.
Non-Condensable Gas	per cent by volume	-	1.5 Max.
Chloride	pass/fail	Pass	pass
Purity	% by weight (Gas Chromatography)	99.96	99.5 Min.
Particulates	pass/fail	Pass	pass
Other			

(1) 20 ppm for R-11, 113, 123.

Comments: The high boiling residue (0.1%) is a clear light yellow oil. All other above test results show good quality in-service R-134a and indicate normal system performance. The only significant organic impurity present individually is R-143a: 0.01%. Resample at next scheduled maintenance interval.

Laboratory Supervisor: Dan Wright, Manager Digitally signed by Dan Wright, Manager
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Date: 2016.02.22 09:16:31 -0500 Date: 2/19/2016

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