



Analytical Testing Service

National Refrigerants, Inc. Analytical Testing Service offers easy-to-use sample kits for:

- ❖ Refrigerant
- ❖ Refrigerant Oil
- ❖ Halon
- ❖ Specialty Testing/ GC-MS

Refrigerant: Testing to AHRI Standard 700 Specifications.

Refrigeration Oil: Testing oil quality as indication of system condition.

Halon Testing: Testing to Military/ASTM/ISO Specifications.

Sampling Kit Features

- Easy to use, single use, new sample cylinders
- High-pressure sample cylinder rated to 400 psig suitable for most alternative refrigerants and blends
- Instructions included for proper sampling procedures
- All analysis forms and necessary DOT labeling included
- Prepaid return postage to NRI's analytical laboratory for non-hazardous samples
- All analysis reports are returned with written commentary and recommendations
- Same day results available upon request for additional fee
- Sample cylinders available for very high pressure (VHP) refrigerants like R-508B and R-23



REFRIGERANTS	
PART NO.	DESCRIPTION
NRIHPN	High pressure refrigerant analysis
NRILP	Low pressure refrigerant analysis
Testing liquid phase to AHRI 700 Specifications for Fluorocarbon Refrigerants for one or more of the following:	
<ul style="list-style-type: none"> • IDENTIFICATION (Infrared Spectroscopy) • MOISTURE • ACIDITY • HIGH BOILING RESIDUE/OIL CONTENT • PARTICULATES/SOLIDS • PURITY (Gas Chromatography)/Impurity listing • CHLORIDE 	

LUBRICANTS	
PART NO.	DESCRIPTION
NRIOA	Oil Analysis
Testing of lubricant for one or more of the following:	
<ul style="list-style-type: none"> • IDENTIFICATION (Infrared Spectroscopy) • MOISTURE / ACIDITY • APPEARANCE • VISCOSITY • METALS / ADDITIVES by ICP • RESIDUAL MINERAL OIL (as requested) • FLUORIDE, CHLORIDE and CONDUCTIVITY (as requested, extra cost) 	

NON-CONDENSIBLE GAS	
PART NO.	DESCRIPTION
NRINCN*	Non-Condensibile Gas in Vapor
Testing vapor phase to AHRI 700 Specifications for Fluorocarbon Refrigerants; (Requires a vapor-only sample taken from the source vapor phase)	
*Not applicable to R-11, R-113, R-123	

HALONS
Testing to MILITARY / ASTM / ISO Specifications

LAB CAPABILITIES	
TESTS PERFORMED	METHODS
Purity/Impurities	Pack/Cap Col. GC, FID, TCD, GD-MS
Water	KF Coulometric Titration
Halogen Ion	Ag ⁺ Qualitative / Visual / ISE
Non-Absorbable Gas	Packed Col. GC, TCD
High Boiling Residue	Evaporation / Gravimetric / Volumetric
Suspended Matter	Visual Observation / Gravimetric
Acidity	Aqueous Extration / Base Titration
Color	APHA Color Comparison
Free Halogen	Iodimetry /S ₂ O ₃ – Titration
Viscosity	Cannon-Fenske
FT-IR	Transmission / ATR
Flash Point	Closed Cup