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.

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
- Pre-paid 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-508a and R-503

**REFRIGERANTS**

Part # NRIHPN - High pressure refrigerant analysis
Part # NRILP - Low pressure refrigerant analysis
Testing liquid phase to AHRI 700 Specifications for Fluorocarbon Refrigerants for one or more of the following:

- IDENTIFICATION (Infrared Spectroscopy)
- MOISTURE
- ACIDITY
- HIGH BOILING RESIDUE/OIL CONTENT
- PARTICULATES/SOLIDS
- PURITY (Gas Chromatography)/Impurity listing
- CHLORIDE

**NON-CONDENSABLE GAS**

Part # NRINCN
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

**LUBRICANTS**

Part # NRIOA (Oil Analysis)
Testing of lubricant for one or more of the following:

- IDENTIFICATION (Infrared Spectroscopy)
- MOISTURE / ACIDITY
- APPEARANCE
- VISCOSITY
- METALS / ADDITIVES by ICP
- RESIDUAL MINERAL OIL (as requested)
- FLUORIDE, CHLORIDE and CONDUCTIVITY (as requested, extra cost)

**LAB CAPABILITIES**

- Purity / Impurities - Pack/Cap Col. GC, FID, TCD, GC-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 Extraction / Base Titration
- Color - APHA Color Comparison
- Free Halogen - Iodimetry / S₂O₃⁻⁻ - Titration
- Viscosity - Cannon-Fenske
- FT-IR - Transmission / ATR
- Flash Point - Closed Cup

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