



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
- 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

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)

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

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 / S ₂ O ₃ - Titration |
| - Viscosity | - Cannon-Fenske |
| - FT-IR | - Transmission / ATR |
| - Flash Point | - Closed Cup |