



# Freon™ MO99™ (R-438A) and Freon™ NU-22B™ (R-422B)

## Refrigerants

### Basic Conversion Steps\*

#### 1. Establish system pre-conversion data.

Collect system performance data, including suction pressure, discharge pressure, superheat, and subcooling, of current refrigerant in the system. Review Freon™ MO99™ or NU-22B™ retrofit guidelines—available on freon.com.

#### 2. Recover system's existing refrigerant (R-22 or other).

Refrigerant recovery process must be in accordance with EPA guidelines and recovered into an appropriate recovery cylinder. Assuming a correct charge size, weigh recovered refrigerant. This data can provide an estimated charge size for Freon™ MO99™ or NU-22B™.

#### 3. Perform oil analysis.

Refer to compressor OEM for specific guidelines.

#### 4. Replace filter drier, oil filter, and critical elastomeric seals/gaskets.

To ensure a successful conversion, filter and seal replacement is essential. It is important to complete at this time, as critical elastomeric seals including Schrader valve core seals are components that are difficult to isolate while equipment is operating and may require removal of entire refrigerant charge.

#### 5. Leak check system.

Pressure test system with dry nitrogen. Never use oxygen or compressed air. Do not exceed the equipment's designed pressure rating.

#### 6. Evacuate system.

The system should maintain a minimum vacuum of 500 µm.

#### 7. Charge system with Freon™ MO99™ or NU-22B™.

Invert the cylinder to charge as a liquid. Freon™ MO99™ or NU-22B™ can be added to the high side or receiver with compressor off. Initially, the system should be charged with 85% Freon™ MO99™ or NU-22B™ of the assumed proper charge size. The final charge size of Freon™ MO99™ or NU-22B™ may be up to 95% of the proper R-22 charge. Note that charging ratios may vary depending on system application and design.

#### 8. Start up system.

Monitor pressures, subcooling, and superheat while referencing the Freon™ MO99™ or NU-22B™ PT chart. If additional refrigerant is required, add in 5% increments. If system performance is inadequate, call Chemours Tech2Tech Hotline at (866) 433-8324.

#### 9. Label system.

Label system with the refrigerant and lubricant used to avoid future mixing of refrigerants.

#### 10. Check system post-conversion.

Perform a system leak check. Monitor system's record data and compare to pre-conversion data. If additional technical support is needed, call Chemours Tech2Tech Hotline at (866) 433-8324 with this data in hand.

\*Review Freon™ retrofit guidelines for complete details, available on freon.com.

For more information on Freon™ refrigerants, visit [freon.com](http://freon.com)

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C-11793 (3/19)