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› Nu-Calgon Emkarate RL68H Polyol Ester Refrigeration Lubricant User Manual

## Nu-Calgon 4316-44

# Nu-Calgon Emkarate RL68H Polyol Ester Refrigeration Lubricant

MODEL: 4316-44

## 1. Introduction

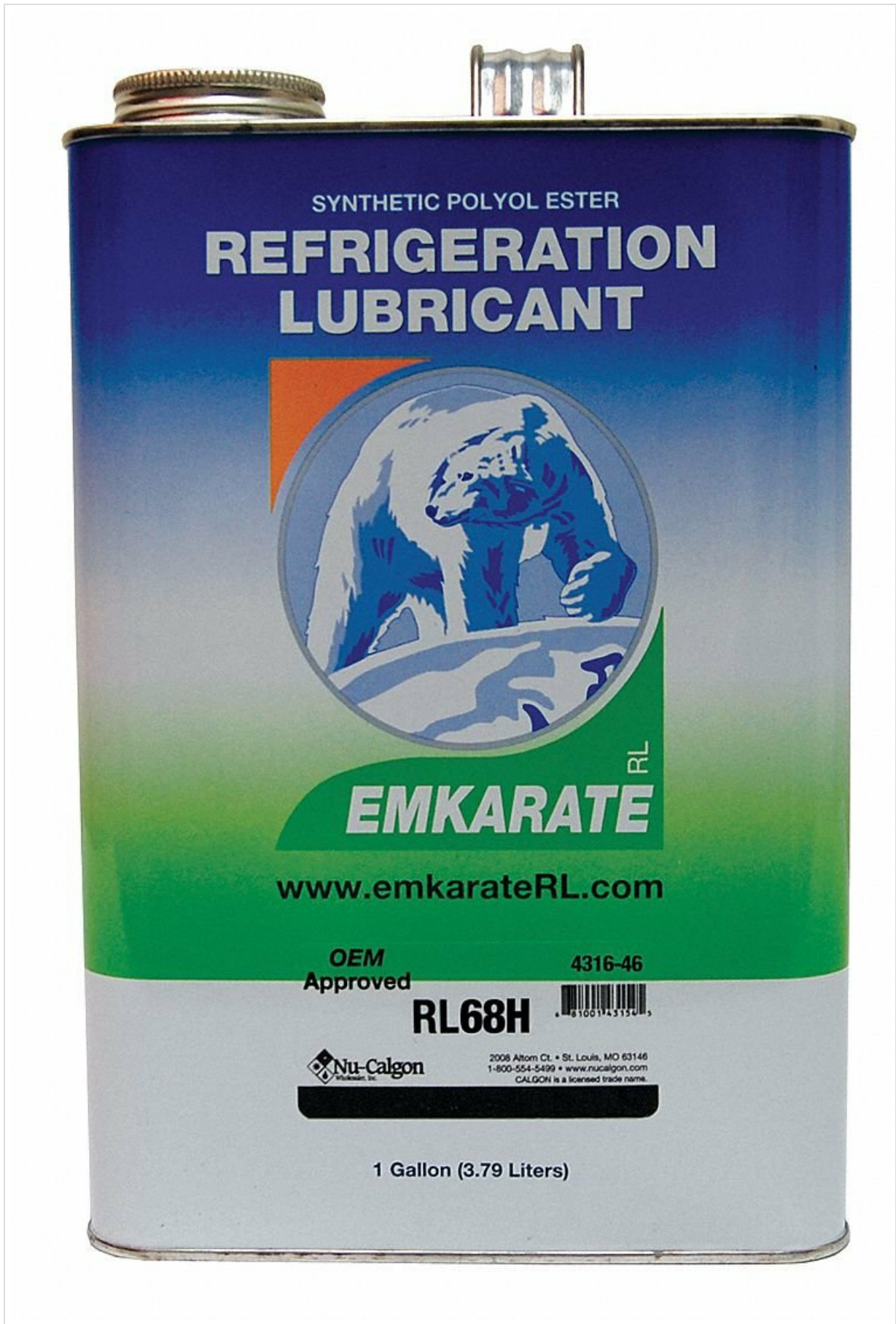
This manual provides essential information for the safe and effective use of Nu-Calgon Emkarate RL68H Polyol Ester Refrigeration Lubricant. Please read these instructions carefully before handling or applying the product to ensure optimal performance and safety.

## 2. Product Overview

The Emkarate family of lubricants consists of a wide range of polyol ester refrigeration oil products. They are specifically designed for use with HFC refrigerants, developed to meet the performance demands of the refrigeration industry. This superior performance is achieved with base fluids that are specifically formulated to deliver optimum performance with minimal additive levels.

### Key Features:

- Excellent thermal and chemical stability.
- Compatible with a wide range of elastomers, polymeric materials, and other materials of construction.
- Preferred choice for servicing and retrofitting existing equipment as well as for OEM charging.
- 1 quart volume.
- 300 SUS viscosity.



**Image Description:** A metal can with a blue and green label. The label prominently displays 'SYNTHETIC POLYOL ESTER REFRIGERATION LUBRICANT' and 'EMKARATE RL68H'. A graphic of a polar bear is visible. The Nu-Calgon logo and contact information are also present. The label indicates '1 Gallon (3.79 Liters)', though this specific product is sold as a 1 quart volume.

### 3. Safety Information

Always handle chemical products with care. Refer to the Safety Data Sheet (SDS) for comprehensive safety information before use. The SDS is available from Nu-Calgon or your supplier.

- **Personal Protective Equipment (PPE):** Wear appropriate PPE, including safety glasses or goggles and chemical-resistant gloves, to prevent skin and eye contact.
- **Ventilation:** Use in a well-ventilated area to avoid inhalation of vapors.
- **First Aid:** In case of contact, flush affected areas with plenty of water. If irritation persists or if ingested, seek immediate medical attention.
- **Flammability:** Keep away from open flames, sparks, and hot surfaces.
- **Spill Response:** Contain and clean up spills immediately using absorbent materials. Dispose of contaminated materials according to local regulations.

## 4. Setup and Preparation for Use

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Before introducing the lubricant into a refrigeration system, ensure the system is clean and free of contaminants. Compatibility with existing lubricants or system components should be verified if not performing a complete system flush.

1. **System Cleanliness:** Ensure the refrigeration system is thoroughly cleaned and evacuated to remove moisture and non-condensable gases.
2. **Compatibility Check:** If retrofitting, ensure the system components (seals, hoses, etc.) are compatible with polyol ester lubricants.
3. **Opening Container:** Open the lubricant container carefully to prevent contamination. Use clean, dry tools.

## 5. Operating Instructions (Application)

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Emkarate RL68H is designed for use in refrigeration and air conditioning systems utilizing HFC refrigerants. Follow standard industry practices and equipment manufacturer guidelines for lubricant charging.

1. **Charging Method:** Charge the lubricant into the system using a dedicated, clean, and dry charging pump or manifold.
2. **Quantity:** Refer to the equipment manufacturer's specifications for the correct lubricant charge volume.
3. **Avoid Contamination:** Minimize exposure of the lubricant to atmospheric moisture. Polyol esters are hygroscopic and can absorb moisture, which can degrade performance.

## 6. Maintenance

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Regular maintenance of refrigeration systems is crucial for longevity and efficiency. This includes periodic checks of lubricant quality and levels.

- **Lubricant Analysis:** Periodically test lubricant samples for acid content, moisture, and metal wear particles to monitor system health.
- **Filter Replacement:** Ensure system filters are replaced as per manufacturer recommendations to prevent contamination of the lubricant.
- **Top-Off:** If topping off the system, use only Emkarate RL68H to maintain consistent lubricant properties.

## 7. Storage

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Proper storage is essential to maintain the quality and performance of Emkarate RL68H lubricant.

- Store in original, tightly sealed containers.

- Keep in a cool, dry, well-ventilated area, away from direct sunlight and sources of ignition.
- Avoid extreme temperatures.

## 8. Disposal

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Dispose of used lubricant and empty containers in accordance with all local, state, and federal environmental regulations. Do not discharge into drains or the environment.

- Contact a licensed waste disposal company for proper handling of used lubricants.
- Empty containers may contain product residue and should be handled with the same care as the full product.

## 9. Troubleshooting

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If issues arise with your refrigeration system after lubricant application, consider the following:

- **Poor System Performance:** Check for proper lubricant charge, refrigerant levels, and system leaks. Ensure no moisture contamination has occurred.
- **Unusual Odors or Discoloration:** This may indicate lubricant degradation or contamination. Perform a lubricant analysis and consider a system flush and recharge.
- **Component Failure:** Verify compatibility of all system components with polyol ester lubricants.

For complex issues, consult a qualified HVAC/R technician.

## 10. Specifications

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| Attribute            | Value                      |
|----------------------|----------------------------|
| Brand                | Nu-Calgon                  |
| Model Number         | 4316-44                    |
| Liquid Volume        | 1 Quarts                   |
| Viscosity            | 300 SUS viscosity          |
| Item Form            | Liquid                     |
| Package Information  | Bottle                     |
| Manufacturer         | Nu-Calgon Wholesaler, Inc. |
| Date First Available | May 20, 2010               |

## 11. Warranty and Support

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For specific warranty information or technical support regarding Nu-Calgon Emkarate RL68H, please contact Nu-Calgon directly or refer to their official website.

### **Nu-Calgon Wholesaler, Inc.**

2008 Altom Ct. St. Louis, MO 63146

Phone: 1-800-554-5499

Website: [www.nucalgon.com](http://www.nucalgon.com)

