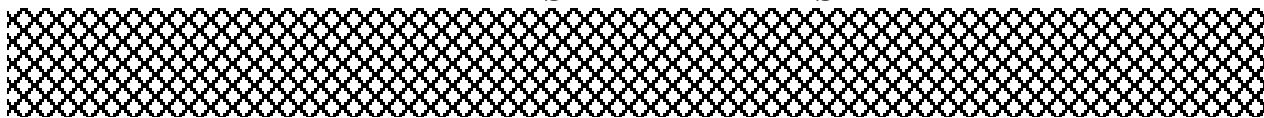




MATERIAL SAFETY DATA SHEET



PRODUCT: NRI REFRIGERANT OIL
PRODUCT CODE: WF68
CHEMICAL NAME/FAMILY: REFRIGERANT OIL

MANUFACTURER / DISTRIBUTOR: NATIONAL REFRIGERANTS, INC.
ADDRESS: 11401 Roosevelt Boulevard Phila., Pa. 19154
INFORMATION: 800-262-0012 EMERGENCY: 800-424-9300
DATE: 01/12 PREPARER: Matt Callahan

COMPOSITION/ INFORMATION ON INGREDIENTS

The criteria for listing components in the composition section is as follows: carcinogens are listed when present at 0.1 % or greater; components which are otherwise hazardous according to OSHA are listed when present at 1.0 % or greater; non-hazardous components are listed at 3.0 % or greater. This is not intended to be a complete compositional disclosure. Refer to section 14 for applicable states' Right To Know and other regulatory information.

Product and / or component (s) carcinogenic according to:
OSHA IARC NTP OTHER NONE
- - - - X

Composition: (Sequence Number and Chemical Name)

Table with 3 columns: Seq., Chemical Name, CAS Number, Range in %. Contains 2 rows of ingredient data.

Mineral oil mist has a permissible exposure limit (PEL); therefore, this product, by definition, is considered hazardous by OSHA (1910.1200)

# component, by definition, is considered hazardous according to OSHA because it carries the permissible exposure limit (PEL) for mineral oil mist.

Exposure limits referenced by sequence number in the composition section

Table with 2 columns: Seq., Limit. Lists exposure limits for mineral oil mist.

PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: Not determined
SPECIFIC GRAVITY: .895
VAPOR DENSITY: Not determined
SOLUBILITY IN WATER (%): <.1
APPEARANCE AND ODOR: Clear yellow liquid / bland odor
VISCOSITY: 64.6 cSt at 40.0 C
VOC CONTENT: Not determined



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## HAZARD IDENTIFICATION

### Emergency Overview

Appearance:  
Clear yellow liquid  
Odor:  
Bland odor

### WARNING STATEMENT

CAUTION! Oil mist may cause respiratory irritation

HMIS		NFPA	
Health: 0	Reactivity: 0	Health: 0	Reactivity: 0
Flammable: 1	Special: --	Flammable: 1	Special: --

### POTENTIAL HEALTH EFFECTS

	Eye	Skin	Inhalation	Ingestion
<b>Primary Route of Exposure:</b>	<u>X</u>	<u>X</u>	<u>X</u>	--

### EFFECTS OF OVEREXPOSURE

#### Acute:

##### Eyes:

May cause minimal irritation, experienced as temporary discomfort.

##### Skin:

Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause defatting of the skin or irritation, seen as local redness with possible mild discomfort.

Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects below, and section 11 for information regarding potential long term effects.

##### Inhalation:

Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness.

##### Ingestion:

If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur.

##### Sensitization Properties:

Unknown.

##### Chronic:

No adverse effects have been documented in humans as a result of chronic exposure. Section 11 may contain applicable animal data.

##### Medical Conditions Aggravated by Exposure:

Because of its irritating properties, repeated skin contact may aggravate an existing dermatitis (skin condition).

##### Other Remarks:

None

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### FIRE AND EXPLOSION HAZARD DATA

**FLASH POINT:** 355°F (coc)

**IGNITION TEMPERATURE:** Not determined

**FLAMMABLE LIMITS:** LEL: Not determined UEL: Not Determined

**EXTINGUISHING MEDIA:** Use water spray, foam, dry chemical or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** None

**SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:** No special equipment or procedures required.

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### STABILITY AND REACTIVITY DATA

**This Material Reacts Violently With:**

(If others are checked below, see comments for details)

Air	Water	Heat	Strong Oxidizers	Others	None of These
—	—	—	<u>X</u>	—	—

**Comments:**

None

**Products Evolved When Subjected to Heat or Combustion:**

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones.

**Hazardous Polymerizations: Do Not Occur**

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### EXPOSURE CONTROLS / PERSONAL PROTECTION

**Protective Equipment (Type)**

**Eye / Face Protection:**

Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

**Skin Protection:**

Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry- cleaned.

**Respiratory Protection:**

Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

**Ventilation:**

Adequate to meet occupational exposure limits (see below).

**Exposure Limit for Total Product:**

Mineral oil mist: OSHA PEL - TWA 5mg/m<sup>3</sup>; ACGIH TLV - TWA 5mg/m<sup>3</sup>



**EMERGENCY AND FIRST AID PROCEDURES:**

**EYES:** Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

**SKIN:** Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

**INHALATION:** If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

**INGESTION:** If more than several mouthfuls of this material are swallowed, give two glasses of water (16oz.). Get medical attention.

**OTHER INSTRUCTIONS:** Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

**PRECAUTIONS/CONTROL MEASURES FOR SAFE HANDLING AND USE**

**STEPS TO BE TAKEN IN CASE OF RELEASE OR SPILL:** Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

**WASTE DISPOSAL METHODS:** Dispose of in accordance with Federal, State, and Local regulations.

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

**PRECAUTIONS FOR STORAGE AND HANDLING:** Periods of exposure to high temperatures should be minimized. Water contamination should be avoided. Minimum feasible handling temperatures should be maintained.

**WORK/HYGIENIC PRACTICES:** Wash thoroughly after handling.

**REGULATORY INFORMATION**

**FEDERAL REGULATIONS:**

**SARA Title III:**

**Section 302/304 Extremely Hazardous Substances**

None

**Section 313 Toxic Chemical**

None

**Section 311 Hazardous Categorization:**

Acute	Chronic	Fire	Pressure	Reactive	N/A
X	—	—	—	—	—

**TSCA Inventory Status:**

This product is listed on the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.



**State Regulations:**

**California Proposition 65:**

The following detectable components of this product are substances, or belong to classes of substances, known to the State of California to cause cancer and/or reproductive toxicity. **None**

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**TOXICOLOGICAL INFORMATION**

**Toxicological Information (Animal Toxicity Data)**

**Median Lethal Dose**

**Oral:**

LD50 believed to be > 5.00 g/kg (rat) practically non-toxic

**Inhalation:**

Not determined.

**Dermal:**

LD50 believed to be > 3.00 g/kg (rabbit) practically non-toxic

**Irritation Index, Estimation of Irritation (Species)**

**Skin:**

(Draize) believed to be > .50 - 3.00 / 8.0 (rabbit) no appreciable effect

**Eyes:**

(Draize) believed to be < 15.00 / 110 (rabbit) no appreciable effect

**Sensitization:**

Not determined.

**Other:**

Some low viscosity naphthenic oils have caused skin irritation and skin tumors in laboratory animals when repeatedly applied and left in place between applications. The significance of this effect to humans has not been established.

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**SHIPPING INFORMATION**

**TRANSPORTATION**

**DOT:**

**PROPER SHIPPING NAME:**

Not Regulated

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**DISCLAIMER**

INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BELIEVED TO BE ACCURATE AT THE TIME OF PREPARATION. NO WARRANTY IS MADE CONCERNING THE ACCURACY AND NO LIABILITY SHALL BE MADE FOR CLAIMS FOR USE OR RELIANCE OF THE RECOMMENDATIONS CONTAINED HEREIN.

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