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SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

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PRODUCT IDENTIFICATION: . . : RENOLIN RO 220

MANUFACTURER IDENTIFICATION

Company Name . . . . . : FUCHS LUBRICANTS CO.  
Address . . . . . : 17050 LATHROP AVE.  
   HARVEY   IL 60426  
Telephone . . . . . : 708-333-8900  
Emergency Contact . . . . : Regulatory Compliance Department  
Emergency Telephone . . . : 708-333-8900 (8am - 5pm CST, M-F)  
   800-255-3924 (24 Hours)

MSDS PRINT DATE . . . . . : 11/13/2013

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\* EMERGENCY OVERVIEW

This product is a liquid that is insoluble in water.  
Direct eye contact may cause minor, short term irritation. Short term skin exposure is not expected to be irritating. Inhalation and ingestion are not anticipated routes of exposure during normal conditions of use.

\* HMIS Rating: Health- 1 Flammability- 1 Reactivity- 0 PPE- X

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SECTION 2 - COMPONENT DATA

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Components listed in this section may contribute to the potential hazards associated with exposure to the concentrate. The product may contain additional non-hazardous or trade-secret components.

Mineral Oil	Cas#: proprietary	Percent: > 90
Exposure Limit:		
ACGIH TLV:	5 mg/m3 (as mist)	
ACGIH STEL:	10 mg/m3 (as mist)	
OSHA PEL:	5 mg/m3 (as mist)	

- Carcinogenic Components: This product contains no carcinogens.

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SECTION 3 - HAZARDS IDENTIFICATION

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POTENTIAL HEALTH EFFECTS and SYMPTOMS from SHORT TERM/ACUTE EXPOSURE:

- EYE EXPOSURE -

This product is not expected to cause eye irritation under normal conditions of use. Symptoms of slight eye irritation may result when direct contact occurs, or when exposed to high mist levels in poorly ventilated areas.

- SKIN EXPOSURE -

Short term skin contact is not expected to cause skin irritation. Prolonged or repeated direct exposure to the skin may result in

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symptoms of irritation and redness. In severe cases, prolonged or repeated contact may result in dermatitis accompanied by symptoms of irritation, itching, dryness, cracking and/or inflammation.

- INHALATION -

This product has low volatility and so is not expected to cause respiratory tract irritation during normal conditions of use. Exposure to high mist levels in poorly ventilated areas may cause upper respiratory tract irritation and difficulty breathing.

- INGESTION -

Ingestion may cause slight stomach irritation and discomfort.

POTENTIAL CHRONIC HEALTH EFFECTS:

No further data known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Exposure to isobutanol may aggravate pre-existing chronic diseases of the respiratory system, skin, and/or eyes.

No further data known.

CARCINOGENICITY:

This product is not listed as a known or suspected carcinogen by IARC, OSHA, or the NTP.

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SECTION 4 - FIRST AID MEASURES

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EYE CONTACT:

Upon direct eye contact, hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. If irritation is due to exposure to mist or vapors, remove the individual to fresh air. If irritation persists, flush the eyes with clean water until the irritation subsides. If symptoms persist, contact a physician.

SKIN CONTACT:

Remove product from the skin by washing with a mild soap and water. Contaminated clothing should be removed to prevent prolonged exposure. If symptoms of exposure persist, contact a physician.

INHALATION:

Inhalation is not an expected route of exposure. If respiratory irritation or distress occurs, remove the employee to fresh air. Contact a physician or other medical professional if irritation or distress persists.

INGESTION:

If small amounts are ingested, first aid measures are not likely to be

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necessary. If larger amounts are ingested or if symptoms of ingestion occur, dilute stomach contents with two glasses of water or milk. (NOTE: Do NOT give anything by mouth to an unconscious person.) Do not induce vomiting without medical supervision. If vomiting occurs spontaneously keep airway clear. If symptoms of ingestion persist, seek medical attention.

NOTE TO PHYSICIAN:

No further data known.

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SECTION 5 - FIRE FIGHTING MEASURES

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FIRE AND EXPLOSIVE PROPERTIES:

Flashpoint . . . . .	: 450.0	GF	COC
Flammability Limits . . . . .	: LEL	-N/A	
	: UEL	-N/A	

EXTINGUISHING MEDIA:

In accordance with NFPA guidance, dry chemical, foam, or CO2 fire extinguishers are all acceptable. Note that while water fog extinguishers are also acceptable, do NOT apply a direct stream of water onto burning product because it may cause spreading and increase fire intensity.

UNUSUAL FIRE & EXPLOSION HAZARDS:

No further data known.

FIRE-FIGHTING PROCEDURES AND EQUIPMENT:

Emergency responders in the danger area should wear bunker gear and self-contained breathing apparatus for fires beyond the incipient stage. See Section 8 of the MSDS for other PPE to be worn as conditions warrant.

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SECTION 6 - ACCIDENTAL RELEASE MEASURES

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CLEAN-UP MEASURES:

Important: As with any spill or leak, before responding ensure that you are familiar with the potential hazards and recommendations of the MSDS. Appropriate personal protective equipment must be worn. See Section 8 of this MSDS for PPE recommendations.

If possible, safely contain the spill with dikes or other spill response equipment appropriate for petroleum or organic material releases. Take measures to prevent spreading of product. Note that while product will ignite it will not readily burn. However, as a precaution eliminate ignition sources. Prevent from entering sewers or waterways. Large volumes may be transferred to an appropriate container for proper disposal. Small volumes or residues may be soaked up with absorbents. Spill response materials should be collected for proper disposal.

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SECTION 7 - HANDLING AND STORAGE

HANDLING:

As with any industrial chemical, handle the product in a manner that minimizes exposure to practicable levels. Prior to handling, consult Section 8 of this MSDS to evaluate personal protective equipment needs. Open containers slowly to relieve any pressure. Follow all other standard industrial hygiene practices.

Empty containers may contain product residue. All safety precautions taken when handling this product should also be taken when handling empty drums and containers. Keep containers closed when not in use.

Product residue in empty containers is combustible but will not readily burn. NOTE however, that excessive heating or cutting of empty containers may create an ignition source sufficient to start a fire and in extreme cases, cause an explosion.

STORAGE:

Protect product quality by storing indoors and away from extreme temperatures. Close all containers when not in use.

SPECIAL COMMENTS:

No further data known.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT:

Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection.

- EYE PROTECTION -

Wear eye protection appropriate to prevent eye exposure. Where splashing is not likely, chemical safety glasses with side shields are recommended. Where splashing may occur, chemical goggles or full face shield is recommended.

- SKIN PROTECTION -

Gloves are not normally needed during normal conditions of use. If health effects are experienced, oil or chemical resistant gloves such as butyl or nitrile are recommended.

Where splashing or soaking is likely, wear oil or chemical resistant clothing to prevent exposure.

- RESPIRATORY PROTECTION -

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A respirator may be worn to reduce exposure to vapors, dust, or mist. Select a NIOSH/MSHA approved respirator appropriate for the type and physical character of the airborne material. A self-contained breathing apparatus is recommended in all situations where airborne contaminant concentration has not been confirmed to be below safe levels. Respirator use should comply with the OSHA Respirator Protection Standard found in 29 CFR 1910.134.

#### ENGINEERING CONTROLS:

Normal general ventilation is expected to be adequate. It is recommended that ventilation be designed in all instances to maintain airborne concentrations at lowest practicable levels. Ventilation should at a minimum, prevent airborne concentrations from exceeding any exposure limits listed in Section 2 of this MSDS.

The user may wish to refer to 29 CFR 1910.1000(d)(2) and the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices" (Appendix C) for the determination of exposure limits of mixtures. An industrial hygienist or similar professional may be consulted to confirm that the calculated exposure limits apply.

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### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Physical Appearance . . . . .	: Dark amber
Odor . . . . .	: Mild petroleum
Physical State . . . . .	: Liquid
Water Solubility . . . . .	: Insoluble
Specific Gravity . . . . .	: .896

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### SECTION 10 - STABILITY AND REACTIVITY

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#### INCOMPATIBILITIES:

This product is incompatible with strong oxidizing agents.

#### DECOMPOSITION PRODUCTS MAY INCLUDE:

Thermal decomposition products are dependent on combustion conditions. A complex mixture of airborne solid, liquid, particulates and gasses may evolve when the material burns. Combustion byproducts may include:

- oxides of carbon,
- incompletely burned hydrocarbons as fumes and smoke.

#### CONDITIONS TO AVOID:

Avoid contact with incompatible materials and exposure to extreme temperatures.

#### POLYMERIZATION:

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This product is not expected to polymerize.

STABILITY:

This product is stable.

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SECTION 11 - TOXICOLOGICAL INFORMATION

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EYE EFFECTS:

No further toxicological data known.

SKIN EFFECTS:

No further toxicological data known.

ORAL EFFECTS:

No further toxicological data known.

INHALATION EFFECTS:

No further toxicological data known.

OTHER:

No further data known.

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SECTION 12 - ECOLOGICAL INFORMATION

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ECOTOXICOLOGICAL INFORMATION:

This product has not been evaluated for ecotoxicity. As with any industrial chemical, exposure to the environment should be prevented and minimized wherever possible.

ENVIRONMENTAL FATE:

The degree of biodegradability and persistence of this product has not been determined.

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SECTION 13 - DISPOSAL CONSIDERATIONS

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WASTE DISPOSAL:

Ensure that collection, transport, treatment, and disposal of waste product, containers and rinsate complies with all applicable laws and regulations. Note that use, mixture, processing, or contamination of the product may cause the material to be classified as a hazardous waste. It is the responsibility of the product user or owner to determine at the time of disposal, whether the product is regulated as a hazardous waste.

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SECTION 14 - TRANSPORT INFORMATION

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DOT HAZARDOUS MATERIAL INFORMATION:

\* Not otherwise DOT regulated.

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SECTION 15 - REGULATORY INFORMATION

FEDERAL REGULATIONS:

SARA 313:

This product contains NONE of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Clean Water Act / Oil Pollution Act:

This product contains mineral oil and is subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

CERCLA Reportable Quantity:

Any components listed below have been assigned a reportable quantity (RQ) by the Federal EPA. Releases of the product into the environment that exceed the RQ for a particular component must be reported to the National Response Center at 1-800-424-8802.

Component	RQ
* - * - * - * - * - * - * - * - * - * - *	

Toxic Substances Control Act:

The components of this product are listed on the TSCA inventory. The product contains Diphenylamine and p-Methoxyphenol which is subject to TSCA section 12(b) restrictions

Ozone Depleting Substances:

This product contains no ozone depleting substances as defined by the Clean Air Act.

Hazardous Air Pollutants:

Any components listed below are defined by the Federal EPA as hazardous air pollutants.

Component
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STATE REGULATIONS:

This product contains mineral oil, and as used, may be regulated by state used oil regulations. Check with the appropriate state agency to determine whether such a regulation exists.

No further data known.

SECTION 16 - OTHER INFORMATION

Prepared by . . . . . : Corporate Regulatory Compliance

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Date of issue . . . . . : 11/13/2013  
Last Revision Date . . . . . : 02/11/2006  
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