

RAIMOL EP2 GREASE**EP2 GREASE NLGI 2****Identification of the Substance/Preparation and Company Undertaking**

Product Name: RAIMOL EP GREASE NLGI 2

Product Information: LITHIUM EP NLGI 2

Company Name: Rainchem International, Inc.

Address: 4015 Le Cul de Sac Street, Sun Valley, Paranaque City

Phone Number: (632)403-8297

Composition/Information on Ingredients

COMPONENT	CAS No.
Pale oil	64742569
Vacuum Residuum	64741566
Additives	
Hydrotreated residual oil	64742570
Solvent refined heavy naphthenic distillate	64741964
Solvent refined residual oil	64742014
Hydrotreated heavy naphthenic distillate	64742525

Risk Phrases and Symbol**RAI 1** = Irritating to eyes**RAI 2** = Irritating/Harmful to respiratory system**RAI 3** = Irritating to skin**Hazards Identification****Warning Statements**HANDLE MATERIAL IN PRESSURE EQUIPMENT WITH CARE.
ACCIDENTAL INJECTION CAN CAUSE SERIOUS TISSUE DAMAGE

Eyes

Expected to cause no more than minor eye irritation (**RAI 1**)

Oral

Not expected to be an ingestion problem

Inhalation

Product not volatile at ambient temperatures. Vapours, mist or fumes in high concentrations, as generated from spraying or heating in an enclosed space, may cause eye irritation

Skin

May cause skin irritation. Prolonged or frequently repeated contact may cause more severe irritation or may cause the skin to become cracked or dry from the defatting action of this material. See Long Term Toxic Effects and Section 11 for more details. (**RAI 3**)

Long Term Toxic Effects

Suspected cancer hazard. Contains a component(s) that may cause cancer. Risk of cancer depends on duration and level of exposure.

First-Aid Measures

Eyes	Flush eyes immediately with fresh water for several minutes while holding the eyelids open. If irritation persists, see a doctor.
Skin	Wash skin thoroughly with soap and water. Launder contaminated clothing.
Ingestion	If swallowed and person is conscious, give water or milk. DO NOT make person vomit except on advice of medical personnel. If advice cannot be obtained, take person with container and label to nearest emergency treatment center. Never give anything by mouth to an unconscious person.
Inhalation	This material is not expected to be an acute inhalation problem under typical applications. However, if exposed to excessive levels of fumes, mist or dust, remove to fresh air and get medical attention.
Advice to Doctor	High pressure equipment can cause small, often bloodless puncture wounds where material may have been injected deep into the extremity. With 24 hours, there is usually extensive swelling, discoloration and intense pain in the affected part. Requires immediate treatment at a surgical emergency center; else disfigurement or amputation of the affected part may occur. Treatment of high pressure wounds may include: 1) surgical decompression, debridement and drainage. 2) broad spectrum antibiotic and 3) anti-inflammatory medication.

Fire Fighting Measures

Ignition temperature , °C	Not determined
Flammable Limits (% by Volume)	Not determined
Flash point, °C	Not determined
Fire Extinguishing Agents	According to the US National Fire Protection Association Guide, use water spray, dry chemical, foam or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapours and to provide protection for personnel attempting to stop the leak.
Explosion Hazards	For fires involving this material, do not enter any enclosed or confined space without self-contained breathing apparatus to protect against the hazardous effects of combustion products or oxygen deficiency.

Accidental Release Measures**In case of Spill**

Shovel up material and place in a disposable container, observing precautions outlined in this MSDS. Scrub contaminated area with detergent and water using stiff broom or mop. Pick up liquid with an absorbent and place in a disposable container. Avoid eye and skin contact. Prevent contamination of groundwater or surface water.

Handling and Storage

Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimised. Water contamination should be avoided.

Exposure Control/Personal Protection**Eyes**

No special eye protection is usually necessary.

Skin

Avoid prolonged or frequently repeated contact with this material. Skin contact can be minimised by wearing impervious protective clothing including gloves. Protective clothing made from neoprene, nitrile, or n-butyl rubber is suitable in these applications. Exposed employees should exercise reasonable personal cleanliness; this includes cleansing exposed skin several times daily with soap and water, and laundering or dry cleaning soiled work clothing at least weekly.

Inhalation

None required when handling minimum feasible temperatures.

Ventilation

Under normal applications of this product, general dilution ventilation is adequate.

Exposure Limits

None established for product

Physical and Chemical Properties**Appearance and Odour**

Dark brown, dark, yellow or golden color grease

Boiling Point

Not Determined

Vapour Pr (mm HG @ 25°C)

Not Determined

Density (kg/l at 15°C)

Not Determined

Vapour Density (Air=1)

Not Determined

Undiluted product's pH

Not applicable

Solubility in water

Negligible

Percent Volatile by Volume

Not Determined

Evaporation

Not Determined

Operating Temperature

-20°C to 150 °C

Stability and Reactivity**Hazardous Polymerizations**

DO NOT OCCUR

Products of Combustion

Normal combustion forms carbon dioxide and water vapour and may produce oxides of sulfur, nitrogen and phosphorus; incomplete combustion can product carbon monoxide.

Conditions to Avoid

Heat, strong oxidizers.

Toxicological Information

General

High Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part. Take this information with you if you seek medical treatment.

The material is of varying composition and may contain significant amounts of poly nuclear aromatic hydrocarbons (PNAs) which have been shown to cause skin cancer after prolonged or frequent contact with the skin of test animals. When a similar material was repeatedly applied to the skin of mice, there was a moderate increase in skin cancer. Brief or intermittent skin contact with this product is not expected to have serious effects if it is washed thoroughly from the skin. While normal use should not result in any adverse effects, we strongly recommend that the precautions outlined in this MSDS be followed to reduce skin contact and keep inhalation of mists of vapours to a minimum.

This product contains petroleum asphalt. No association has been established between industrial exposure to petroleum asphalt and cancer in humans. The International Agency for Research on Cancer (IARC) has recently reviewed the carcinogenic effects of asphalts. They concluded that there was limited evidence that undiluted, air-refined asphalt was carcinogenic to animals, while there was limited evidence that steam-refined asphalts were carcinogenic to animals. Additionally there was insufficient evidence to conclude that asphalts were exposed to a variety of whole asphalts did not result in any increased incidence of certain types of cancer. Brief or intermittent skin contact with this asphalt product is not expected to produce any serious effects. While normal handling of this product is not likely to cause cancer in humans, skin contact and breathing of mists, fumes or vapours should be reduced to a minimum. We strongly recommend that the precautions outlined in this MSDS be followed when handling this material.

Ecological Information**Environmental Effects**

No specific toxicology data on this product is available

Disposal Considerations**Waste Disposal**

Place contaminated materials in disposable containers and dispose off in a manner consistent with applicable regulations. Contact local environmental or health authorities for approval of disposal of this material.

Remarks

None required

Transport Information**Transportation of Dangerous Goods****UN Number**

Not Applicable

Dangerous Goods Class

Not Applicable

Proper Shipping Name

Not Applicable

Hazchem Code

Not Applicable

Additional Information

None Determined

Transport PrecautionsOcean Shipment (IMDG)
-Not subject to IMDG code
Air Shipment (IATA)
Not subject to IATA regulations**Regulatory Information****Respirator Information**

None determined

Other Information- No specific notes on this product**Typical Applications**

EP2 GREASE is designed as multifunctional extreme pressure greases for prevention of wear, during usage at temperatures up to 130°C. EP2 GREASE can be used in plain and anti friction bearings operating under high load conditions in various heavy duty industrial applications, steel mills, paper mills, heavy structural construction/fabrication industries, mining and automotive industries. EP2 Grease is also recommended for use in flexible type gear couplings.

Other Information

This MATERIAL SAFETY DATA SHEET deals with the health and safety information. The product should be used in applications specified in the product's Technical Data Sheet. For any other uses, exposures should be assessed so that appropriate handling practices and training programs can be established to certify safe workplace operations.

RAIMOL is a trademark of Rainchem International, Inc. Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture. The information contained herein is subject to change without notice. For more information, contact your RAIMOL area distributor or visit www.raimol.com