

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: Pyrolube Grease

Supplier: Kano Laboratories, Inc.
1000 E Thompson Lane
Nashville, TN 37211

Emergency Phone Number: Chemtrec 1-800-424-9300

Manufacturer Phone Number: 1 (615) 833-4101

Website: www.kanolaboratories.com

Recommended use: Lubricating Grease

Restrictions on use: None known.

Date of Preparation: June 10, 2015

2. HAZARD(S) IDENTIFICATION

Classification:

Physical	Health
Not hazardous	Not Hazardous

Label Elements:

Not hazardous in accordance with the GHS and OSHA Hazcom 2012.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Petroleum Paraffinic Base Oil	64742-70-7	80-100%
Natural Graphite	7782-42-5	1-5%
Crystalline Silica, Quartz*	14808-60-7	0.1-0.5%

*Carcinogen classification applies to respirable forms only. Not applicable to this product.

The exact percentage (concentration) and composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

Inhalation: Remove person to fresh air. If irritation occurs or symptoms develop, get medical attention.

Skin contact: Remove contaminated clothing. Wash skin with soap and water. If irritation develops and persists, get medical attention. Launder clothing before reuse.

Eye contact: Immediately flush eyes with water while lifting the upper and lower lids. Get medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to a person who is unconscious or convulsing. Get medical attention if symptoms develop.

Most important symptoms/effects, acute and delayed: May cause mild eye irritation. Prolonged skin contact may cause irritation and drying of the skin. Ingestion may cause gastrointestinal distress with nausea and diarrhea. Inhalation of mists may cause upper respiratory tract irritation.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is not generally required.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Use water fog, foam, carbon dioxide or dry chemical to extinguish a fire involving this product. So not use solid water stream as this may spread the fire.

Specific hazards arising from the chemical: Product is not flammable or combustible but may burn in a fire. Combustion products are hazardous and may include carbon, nitrogen and molybdenum oxides.

Special protective equipment and precautions for fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate protective clothing and equipment as described in Section 8. Use caution – surfaces will be very slippery.

Environmental Precautions: Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

Methods and materials for containment and cleaning up: Contain and collect with an inert absorbent material. Place in an appropriate container for disposal. Clean spill area thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid the generation of mists. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling. Keep away from open flames and hot surfaces.

Conditions for safe storage, including any incompatibilities: Store in a dry, cool, well-ventilated area. Keep in original containers. Store away from oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Petroleum Paraffinic Base Oil	5 mg/m ³ TWA OSHA PEL (as oil mist) 5 mg/m ³ TWA ACGIH TLV (inhalable)
Natural Graphite	15 mppcf TWA OSHA PEL 2 mg/m ³ TWA ACGIH TLV (respirable)
Crystalline Silica, Quartz	10 mg/m ³ TWA OSHA PEL (respirable fraction) % Silica + 2 30 mg/m ³ TWA OSHA PEL (total dust) % Silica + 2 0.025 mg/m ³ TWA ACGIH TLV (respirable fraction)

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to minimize exposures levels.

Individual protection measures:

Respiratory protection: None needed under normal use conditions. If exposure levels are excessive and irritation is experienced, a NIOSH approved organic vapor/particulate respirator is recommended. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

Skin protection: Impervious gloves recommended if needed to avoid prolonged skin contact.

Eye protection: Follow facility requirements. Safety goggles recommended if splashing is possible. .

Other: None known.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Grease

Odor: No characteristic odor.

Odor threshold: Not determined	pH: Not applicable
Melting point/freezing point: Not determined	Boiling Point: Not determined
Flash point: >300.2°F (>149°C) (petroleum base oil)	Evaporation rate (EtOH =1): <1
Flammability (solid, gas): Not applicable	VOC: Not determined
Flammable limits: LEL: Not determined	UEL: Not determined
Vapor pressure: Not determined	Vapor density: Not determined
Relative density: Not determined	Solubility(ies): Insoluble in water
Partition coefficient: n-octanol/water: Not available	Auto-ignition temperature: Not available
Decomposition temperature: Not available	Viscosity: Not determined

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical stability: Stable.

Possibility of hazardous reactions: None known.

Conditions to avoid: Extreme heat and open flames.

Incompatible materials: Avoid oxidizing agents.

Hazardous decomposition products: Thermal decomposition may yield carbon, nitrogen and molybdenum oxides.

11. TOXICOLOGICAL INFORMATION

Acute effects of exposure:

Inhalation: Inhalation of mists from heated product may cause minor irritation of the mucous membranes and upper respiratory tract.

Ingestion: Ingestion may cause gastrointestinal distress with nausea and diarrhea.

Skin contact: May cause mild irritation and drying of the skin. Prolonged skin contact may cause dermatitis.

Eye contact: Contact may cause mild irritation with redness and tearing.

Chronic Effects: None known.

Sensitization: Components are not known to be sensitizers.

Germ Cell Mutagenicity: No adverse effects are expected. Components are not germ cell mutagens.

Reproductive Toxicity: No adverse effects are expected. Components are not reproductive toxins.

Carcinogenicity: This product contains small amount of crystalline silica, quartz, which is listed by IARC as "Carcinogenic to Humans" (Group 1) and "Known to be a Human Carcinogen" by NTP. Crystalline silica, quartz only presents a risk of cancer by inhalation of very fine dust. In this product, the crystalline silica, quartz is incorporated into the grease and is not present as a respirable dust. There is no exposure to respirable crystalline silica, quartz dust in the normal use of this product. None of the other components are listed as a carcinogen or suspect carcinogen by IARC, NTP or OSHA.

Acute Toxicity Values:

Petroleum Paraffinic Base Oil: Oral Rat LD50 >5000 mg/kg, Inhalation rat LC50 >5.53 mg/L/4 hr, Dermal rabbit LD50 >2000 mg/kg

Natural Graphite: Oral Rat LD50 >2000 mg/kg, Inhalation rat LC50 >2.0 mg/L/4 hr (no mortalities)

Crystalline Silica, Quartz: Oral rat LD50 >22,500 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity values:

Petroleum Paraffinic Base Oil: 96 hr LL50 Pimephales promelas >100 mg/L, 48 hr EL50 daphnia magna >10,000 mg/L, 96 hr NOEL Pseudokirchnerella subcapitata >100 mg/L

Natural Graphite: 96 hr LC50 Danio rerio >100 mg/L, 48 hr EC50 daphnia magna >100 mg/L, 72 hr EC50 Pseudokirchnerella subcapitata >100 mg/L

Crystalline Silica, Quartz: LC50 carp >10,000 mg/L/72 hr.

Persistence and degradability: Petroleum paraffinic base oil is inherently biodegradable.

Bioaccumulative potential: Petroleum paraffinic base oil has the potential to bioaccumulate in aquatic organisms.

Mobility in soil: No data available.

Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations. No specific disposal method is recommended. Under RCRA, it is the responsibility of the user, at the time of disposal, to determine whether the product meets the RCRA criteria for hazardous waste. As sold, this product would not meet the criteria.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT		Not Regulated			
DOT/49CFR		Not Regulated			
IMDG		Not Regulated			
IATA		Not Regulated			

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None known.

15. REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA: Oil spills are reportable to the National Response Center. Many states have more stringent release reporting requirements. Report spills as required under federal, state and local regulations.

SARA Hazard Category (311/312): Not Hazardous

EPA SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313: None

EPA TSCA Inventory: All the components of this product are listed on the TSCA inventory or exempt.

California Proposition 65: This product contains the following chemicals known to the State of California to cause cancer and reproductive toxicity: This product contains trace amounts of crystalline silica. Crystalline silica, quartz only presents a risk of cancer by inhalation of very fine dust. In this product, the crystalline silica, quartz is incorporated into the grease and is not present as a respirable dust. There is no exposure to respirable crystalline silica, quartz dust in the normal use of this product.

RoHS: Compliant

16. OTHER INFORMATION

NFPA Rating: Health = 1 Flammability = 1 Instability = 0
HMIS Rating: Health = 1 Flammability = 1 Physical Hazard = 0

SDS Revision History: Converted to GHS format - all sections revised

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The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or the consequences of its use or misuse.