

MATERIAL SAFETY DATA SHEET

Section 1 – Product & Company Identification

Product Name.....: Synthetic Gear Grease
(Worm Gear Lube Oil 600 PD)

Company Name.....: Ridge Tool Company
Address: 400 Clark Street
: Elyria, Ohio 44035-6001
Telephone: 1-800-519-3456 (USA) (8:00 am – 5:00 pm EST, M-F)
Emergency Telephone: call 9-1-1 or local emergency number
Website: www.RIDGID.com

Issue Date: September 5, 2013

Section 2 – Hazards Identification

EMERGENCY OVERVIEW:

Low order of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage.

REGULATORY STATUS

- This product is not listed as a known or suspected carcinogen by IARC, OSHA or the NTP.
- This product is not considered to be hazardous under OSHA's Hazard Communication Standard

POTENTIAL HEALTH EFFECTS AND SYMPTOMS FROM SHORT TERM / ACUTE EXPOSURE:

- Eye:
Excessive exposure may result in eye irritation.
- Skin:
Excessive exposure may result in skin irritation. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.
- Inhalation:
Excessive exposure may result in respiratory irritation.

Product Name.....: Synthetic Gear Grease

- Ingestion:
No health effects/symptoms expected.
- Potential Chronic Health Effects:
None known.
- Medical Conditions Aggravated By Exposure:
None known.

POTENTIAL ENVIRONMENTAL EFFECTS

None known.

HMIS Rating: Health – 0 Flammability – 1 Reactivity – 0

Section 3 – Composition / Information On Ingredients

This product contains no reportable hazardous substance(s) or complex substance(s).

Section 4 – First Aid Measures

SKIN CONTACT:

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

INHALATION:

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use.

Product Name.....: Synthetic Gear Grease

EYE CONTACT:

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION:

First aid is normally not required. Seek medical attention if discomfort occurs.

Section 5 – Fire Fighting Measures

FIRE AND EXPLOSIVE PROPERTIES:

Flashpoint.....: >410°F (ASTM D-92)

Flammability Limits: LEL: 0.9

UEL: 7.0

Autoignition Temperature...: Not determined

EXTINGUISH MEDIA:

Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

DO NOT use straight streams of water.

HAZARDOUS COMBUSTION PRODUCTS:

Combustion by-products may include smoke, fume, aldehydes, sulfur oxides, incomplete combustion products, oxides of carbon

FIRE-FIGHTING PROCEDURES AND EQUIPMENT:

Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

NFPA RATING:

Health	Flammability	Reactivity
0	1	0

Product Name.....: Synthetic Gear Grease

Section 6 – Accidental Release Measures

PERSONAL PRECAUTIONS:

Use personal protection recommended in Section 8.

ENVIRONMENTAL:

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks.

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

CONTAINMENT:

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

Product Name.....: Synthetic Gear Grease

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. Follow all other standard industrial hygiene practices. Wash thoroughly after handling. Prevent small spills and leakage to avoid slip hazard. This material is a static accumulator.

STORAGE:

Do not store in open or unlabelled containers. Close all containers when not in use.

Section 8 – Exposure Controls / Personal Protection

EXPOSURE GUIDELINES:

Mist/Aerosol (recommended)	ACGIH TLV:	5 mg / m ³
	ACGIH STEL:	10 mg / m ³
	OSHA PEL:	5 mg / m ³

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS:

Good 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 shown above.

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. Employees should be properly trained to use appropriate PPE when working with this product.

- Eye Protection:
If contact is likely, safety glasses with side shields are recommended.

Product Name.....: Synthetic Gear Grease

- **Skin Protection:**
No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
- **Respiratory Protection:**
If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Section 9 – Physical And Chemical Properties

Physical Appearance	Orange Liquid
Odor	Characteristic
Physical State	Liquid
Water Solubility	Negligible
Relative Density (at 15 C)	0.869
Flash Point [Method]:	>210C (410F) [ASTM D-92]
Flammable Limits (Approximate volume % in air)	LEL: 0.9 UEL: 7.0
Autoignition Temperature	N/D
Boiling Point / Range	> 316C (600F)
Vapor Density (Air = 1)	> 2 at 101 kPa
Vapor Pressure:	< 0.013 kPa (0.1 mm Hg) at 20 C
Evaporation Rate (n-butyl acetate = 1)	N/D
pH:	N/A
Log Pow (n-Octanol/Water Partition Coefficient)	N/D
Viscosity	460 cSt (460 mm ² /sec) at 40 C
Pour Point	-30°C (-22°F)
VOC	< 5.0%

Product Name.....: Synthetic Gear Grease

Section 10 – Stability And Reactivity

STABILITY:

This product is stable under normal conditions.

CONDITIONS TO AVOID:

Avoid excessive heat and sources of ignition.

INCOMPATIBLE MATERIALS:

This product is incompatible with strong oxidizing agents.

DECOMPOSITION PRODUCTS MAY INCLUDE:

Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION:

This product is not expected to polymerize.

Section 11 – Toxicological Information

ACUTE:

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity (Rat): LC50 > 5000 mg/m3	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: No end point data.	Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
Ingestion	
Toxicity (Rat): LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Toxicity (Rabbit): LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Irritation (Rabbit): Data available.	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
Eye	
Irritation (Rabbit): Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

Product Name.....: Synthetic Gear Grease

CHRONIC:

Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials.

SENSITIZATION:

None of the components are known to cause sensitization.

REPRODUCTIVE EFFECTS:

None of the components are known to be toxic to reproduction.

TERATOGENIC EFFECTS:

None of the components are known to be teratogenic.

MUTAGENICITY:

None of the components are known to be a mutagen.

CARCINOGENICITY:

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

Section 12 – Ecological Information

ECOTOXICOLOGICAL INFORMATION:

Material -- Not expected to be harmful to aquatic organisms.

Material -- Not expected to demonstrate chronic toxicity to aquatic organisms.

ENVIRONMENTAL FATE:

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

VOC CONTENT:

< 5.0%

Product Name.....: Synthetic Gear Grease

Section 13 – Disposal Consideration

WASTE DISPOSAL:

Ensure that collection, transport, treatment and disposal of waste product and containers 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.

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION:

RCRA Information: The unused product, in the manufacturer's opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity, and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Product Name.....: Synthetic Gear Grease

Section 14 – Transportation Information

U.S. DOT HAZARDOUS MATERIAL INFORMATION:

Not DOT regulated.

CANADA TRANSPORT OF DANGEROUS GOODS:

This material is not TDG regulated.

SEA (IMDG) : Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA) : Not Regulated for Air Transport

Section 15 – Regulatory Information

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: IECSC, DSL, EINECS, KECI, TSCA
Special Cases:

Inventory	Status
PICCS	Restrictions Apply

EPCRA: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

Product Name.....: Synthetic Gear Grease

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
PHENOL, 4,4-METHYLENEBIS (2,6-BIS(1,1-DIMETHYLETHYL)-	118-82-1	5

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

Section 16 – Other Information

Prepared by:..... Ridge Tool Company

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