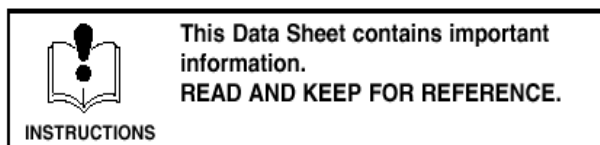


Material Safety Data Sheet

MSD020

Rev. A

Updated: 11/19/02



1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Synthetic Grease

Chemical Name: Manufacturer / Supplier

Graco Inc.

P.O. Box 1441

60 11th Ave. NE

Minneapolis, MN 55440-1441

Part Number(s): 115982

Use: High temperature lubricant.

Emergency Information

Health Emergency (RMPC): (303)- 623-5716

Chemical Spills (Chemtrec): (800)- 424-9300

2.0 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical names and synonyms: Synthetic Hydrocarbons and Additives.

Globally reportable MSDS ingredients: None.

For exposure data, see **8.0, Exposure Controls / Personal Protection.**

3.0 HAZARDS IDENTIFICATION

Emergency Overview: Under normal conditions of use, this product is not considered hazardous according to regulatory guidelines (See Section 15). Red Grease. DOT ERG No.: NA

POTENTIAL HEALTH EFFECTS: Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation. For further health effects/toxicological data, see Section 11.

4.0 FIRST AID MEASURES

Eye	Flush thoroughly with water. If irritation occurs, call a physician.
Skin	Wash contact areas with soap and water. Remove and clean oil soaked clothing daily and wash affected area. INJECTION INJURY WARNING: 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. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with mechanical device or use mouth-to-mouth resuscitation.
Ingestion	Not expected to be a problem. Seek medical attention if discomfort occurs. Do not induce vomiting.

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5.0 FIREFIGHTING MEASURES

Flashpoint C(F)	>204(400)(Estimated for oil, ASTM D-92 (COC)).
Special Fire Fighting Procedures	Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
Flammable Limits (approx. % vol, in air)	LEL: NE, UEL: NE
Autoignition Temperature	
Flammability Classification	
Extinguishing Media	Carbon dioxide, foam, dry chemical and water fog.
Unusual Fire and Explosion Hazards	None
Firefighting Equipment	For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.
Hazardous Combustion Products	Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and decomposition products, in the case of incomplete combustion.
NFPA Hazard ID	Health: 0 Flammability: 1 Reactivity: 0

6.0 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills/releases as required to appropriate authorities. U.S. Coast Guard and EPA regulations require immediate reporting of spills/releases that could reach any waterway including intermittent dry creeks. Report spill/release to Coast Guard National Response Center toll free number (800)424-8802. In case of accident or road spill notify CHEMTREC (800)424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: LAND SPILL – Shut off source taking normal safety precautions. Take measures to minimize the effects on ground water. Recover by pumping or contain spilled material with sand or other suitable absorbent and remove mechanical into containers. If necessary, dispose of absorbed residues as directed in Section 13. WATER SPILL: Confine the spill immediately with booms. Warn other ships in the vicinity. Notify port and other relevant authorities. Remove from the surface by skimming or with suitable absorbents. If permitted by regulatory authorities the use of suitable dispersants should be considered where recommended in local oil spill procedures.

ENVIRONMENTAL PRECAUTIONS. Prevent material from entering sewers, water sources or low lying areas; advise the relevant authorities if it has, or if it contaminates soil/vegetation.

PERSONAL PRECAUTIONS: See Section 8.

7.0 HANDLING AND STORAGE

Handling	High pressure injection under the skin may occur due to the rupture of pressurized lines. Always seek medical attention. No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.
Storage	Keep containers closed when not in use. Do not store in open or unlabelled containers. Store away from strong oxidizing agents and combustible materials. Do not store near heat, sparks, flame or strong oxidants.
Special Precautions	Prevent small spills and leakage's to avoid slip hazard.

Empty Container Warning	Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, 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. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.
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8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye Protection	Generally eye contact is unlikely with this type material. If eye contact is likely, safety glasses with side shields, or chemical type goggles should be worn.
Skin Protection	If prolonged or repeated skin contact is likely, oil impervious gloves should be worn. Good personal hygiene practices should always be followed.
Occupational Exposure Limits	This product does not contain any components which have recognized exposure limits.
Respiratory Protection	No special requirements under ordinary conditions of use and with adequate ventilation.
Ventilation	Use adequate ventilation.

9.0 CHEMICAL AND PHYSICAL PROPERTIES

Appearance and Odor	Grease – Mild
pH	NA
Vapor Pressure (mm Hg)	mmHg 20 C: < 0.1
Vapor Density (Air = 1)	NE
Boiling Point C(F)	NE
Color	Red
Solubility in Water	Negligible
Odor Threshold-ppm	NE
Dropping Point	NE
Flash Point C(F)	>204 (400) (Estimated for Oil, ASTM D-92 (COC))
Flammability (solids)	NE
Auto Flammability C(F)	NA
Explosive Properties	NA
Oxidizing Properties	NA
Evaporation Rate	NE
Relative Density, 15/4 C	0.909
Partition Coefficient	> 3.5
Viscosity at 40 C, cSt	> 198.0
Viscosity at 100 C, cSt	NE
Pour Point C(F)	NA
Freezing Point C(F)	NE
Volatile Organic Compound	NE
DMSO Extract, IP-346 (WT.%)	< 3, for mineral oil only
Note:	Most Physical Properties for oil component.

10.0 STABILITY AND REACTIVITY

Stability	Stable
Conditions to Avoid	Extreme heat and high energy sources of ignition
Materials to Avoid	Strong oxidizers
Hazardous Decomposition	Product does not decompose at ambient temperatures
Hazardous Polymerization	Will not occur

11.0 TOXICOLOGICAL INFORMATION

Acute Toxicology	
Eye Irritation (Rabbits)	Practically non-irritating. (Draize score: greater than 6 but 15 or less). Based on testing of similar products and/or the components
Skin Irritation (Rabbits)	Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). Based on testing of similar products and/or the components
Inhalation (Rats)	Practically non-toxic (LD50 greater than 5 mg/1). Based on testing of similar products and/or the components.
Dermal (Rabbits)	Practically non-toxic (LD50: greater than 2000 mg/kg). Based on testing of similar products and/or the components
Oral (Rats)	Practically non-toxic (LD50: greater than 2000 mg/kg). Based on testing of similar products and/or the components.

Other Toxicity Data: Although an acute inhalation study was not performed with this product, a variety of mineral oils and synthetic base oils, such as those in this product have been tested. These samples had virtually no effect other than a nonspecific inflammatory response in the lung to the aerosolized mineral oil. The presence of additives in other tested formulations (in approximately the same amounts as in the present formulation) did not alter the observed effects.

SUBCHRONIC TOXICOLOGY (SUMMARY)

No significant adverse effects were found in studies using repeated dermal applications of similar formulations to the skin of laboratory animals for 13 weeks at doses significantly higher than those expected during normal industrial exposure. The animals were evaluated extensively for effects of exposure (hematology, serum chemistry, urinalysis, organ weights, microscopic examination of tissues etc).

REPRODUCTION TOXICOLOGY (SUMMARY).

No teratogenic effects would be expected from dermal exposure, based on laboratory developmental toxicity studies of major components in this formulation and/or materials of similar composition.

CHRONIC TOXICOLOGY (SUMMARY)

Repeated and/or prolonged exposure may cause irritation to the skin, eyes or respiratory tract. For mineral base oils: Base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects. These results are confirmed on a continuing basis using various screening methods such as Modified Ames Test, IP-346, and/or other analytical methods. For synthetic base oils, The base oils in this product have been tested in the Ames assay and other tests of mutagenicity with negative results. These base oils are not expected to be carcinogenic with chronic dermal exposures.

SENSITIZATION (SUMMARY)

Not expected to be sensitizing based on tests of this product, components, or similar products.

12.0 ECOLOGICAL INFORMATION

Environmental Fate and Effects: This product is expected to be inherently biodegradable, as the principal components have been shown to degrade at slow to moderate rates. The major components in the formulation show no aquatic toxicity at 1000 mg/L loading, therefore long-term adverse effects in the aquatic environment are not expected.

13.0 DISPOSAL INFORMATION

Waste Disposal: Product is suitable for burning in an enclosed, controlled burner for fuel value. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

RCRA Information: The unused product, in our 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 hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity. The unused product is not formulated with substances covered by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14.0 TRANSPORTATION INFORMATION

U.S. Dept. of Transportation:

Shipping Name	Not regulated
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International Information:

Sea (IMO/IMDG) Shipping Name	Not regulated
Air (ICAO/IATA) Shipping Name	Not regulated
European Road / Rail (ADR/RID) Shipping Name	Not regulated

15.0 REGULATORY INFORMATION

EU Labeling	Product is not dangerous as defined by the European Union Dangerous Substances/Preparations Directives. EU labeling not required.
SARA Title III Section 311/312 Hazardous Categorization (40 CFR Part 370)	This products contains no 'EXTREMELY HAZARDOUS SUBSTANCES.
SARA Title III Sections 313 (40 CFR Part 372)	None. This product contains no chemicals subject to the supplier notification requirements of SARA (313) toxic release program.
U.S. Inventory (TSCA)	All components comply with TSCA, and EINECS/ELINCS.
OSHA Hazard Communication Standard	When used for its intended purposes, this product is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

The following product ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
Lithium Hydroxide (0.12%)	1310-65-2	22
Lithium-Soap Thickener (12.14%)	7620-77-1	22
Fatty Acids, C16-22, Lithium Salts (1.50%)	68783-36-8	22

Regulatory Lists Searched

1 = ACGIH ALL	6 = IARC 1	11 = TSCA 4	16 = CA P65 CARC	21 = LA RTK
2 = ACGIH A1	7 = IARC 2A	12 = TSCA 5a2	17 = CA P65 REPRO	22 = MI 293
3 = ACGIH A2	8 = IARC 2B	13 = TSCA 5e	18 = CA RTK	23 = MN RTK
4 = NTP CARC	9 = OSHA CARC	14 = TSCA 6	19 = FL RTK	24 = NJ RTK
5 = NTP SUS	10 = OSHA Z	15 = TSCA 12b	20 = IL RTK	25 = PA RTK
				26 = RI RTK

Code Key: CARC = Carcinogen; SUS = Suspected Carcinogen; REPRO - Reproductive

16.0 OTHER INFORMATION

Use: Lithium Complex Grease

Note: Not formulated to contain PCBS.

Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person. Information provided on this MSDS reflects intended use. This product should not be used for other applications. In any case, the following advice should be considered:

INDUSTRIAL LABEL

Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation. Always observe good hygiene measures. First Aid: Wash skin with soap and water. Flush eyes with water. If overcome by fumes or vapor, remove to fresh air. If ingested to not induce vomiting. If symptoms persist seek medical assistance. Read and understand the MSDS before using this product.

Prepared By	Graco, Inc.
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This Material Safety Data Sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we have received from sources outside our company. We believe that information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this Data Sheet may not be adequate for all individuals and/or situations. It is the users' obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.

NOTES: NA = Not Applicable; NE = Not Established; UN = Unavailable

All written and visual data contained in this document reflects the latest product information available at the time of publication.

Graco reserves the right to make changes at any time without notice.

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