

AMSOIL Material Safety Data Sheet

Date Issued/Revised: August 13, 2009

Section 1: Product and Company Identification

Manufacturer: AMSOIL, Inc. Telephone:
 925 Tower Avenue CHEMTREC (Spill Emergency Only): 1-800-424-9300
 Superior, WI 54880 Information: 715-392-7101

AMSOIL Product Code GPOR2
 Product Label Name AMSOIL Synthetic Polymeric Off-Road Grease, NLGI #2
 Product Use Lubricating Grease

Section 2: Composition/Information on Ingredients

Component	CAS#	Weight%
Lubricating Oils, Petroleum Base Oils, Highly Refined	Mixture **(2).....	20-40%
Overbased Calcium Sulfonate Complex Thickener.....	Proprietary.....	20-40%
1-Decene, Homopolymer, Hydrogenated (Common Name: Medium Polyalphaolefins).....	68037-01-4	20-40%
*Molybdenum Sulfide (MoS2).....	1317-33-5	3-7%

*This chemical(s) is hazardous according to OSHA/WHIMIS criteria

Composition Comments: Refer to section 8 for exposure limits on ingredients. Chemical ingredients not regulated by OSHA, SARA, state or federal agencies are treated confidentially.

** (2) The base oils for this product can be a mixture of any of the following highly refined petroleum streams: CAS 64741-88-4; CAS 64741-89-5; CAS 64741-95-3; CAS 64741-96-4; CAS 64741-97-5; CAS 694742-01-4; CAS 64742-52-5; CAS 64742-53-6; CAS 64742-54-7; CAS 64742-55-8; CAS 64742-56-9; CAS 64742-57-0; CAS 64742-62-7; CAS 64742-63-8; CAS 64742-56-9; CAS 72623-83-7; 72623-86-0. Carcinogenicity: The petroleum base oils contained in this product have been highly refined by a variety of processes including solvent extraction, solvent dewaxing and hydrotreating to remove aromatics and improve performance characteristics. All petroleum base oils contained in this product meet the IP 346 criteria of less than 3 percent DMSO extractable PAH's and are not considered carcinogens by IARC, NTP or OSHA.

Section 3: Hazards Identification

POTENTIAL HEALTH EFFECTS: Minor eye, inhalation and skin irritant.

*See Section 11 for toxicological information.

Section 4: First Aid Measures

EYE: Rinse with water. Contact physician if discomfort continues.

SKIN: Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

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 of 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 exposed person to fresh air at once. If breathing is labored give oxygen. Get medical attention if any discomfort continues.

INGESTION: Drink large amounts of water. Do not give milk or oil. Do not induce vomiting. If spontaneous vomiting is about to occur, place victims head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended. Seek medical attention immediately.

Section 5: Fire Fighting Measures

FLAMMABILITY PROPERTIES: Flash Point513°F (267°C)
 MethodCOC ASTM D-92
 LFL/UFLNot Determined
 Auto-ignition TemperatureNot Determined

EXTINGUISHING MEDIA: Water spray, fog or mist. Foam. Carbon dioxide (CO2). Dry chemicals, sand, dolomite

SPECIAL FIREFIGHTING

PROCEDURES: Use water to keep fire exposed containers cool and disperse vapors. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Avoid water in straight hose stream; will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control.

UNUSUAL FIRE &

EXPLOSIVE HAZARDS: Volume and pressure increase strongly when heated. Risk of container explosion in fire.

HAZARDOUS COMBUSTION

PRODUCTS: Acrid smoke/fumes. Oxides of: Carbon. Phosphorus. Sulfur

PROTECTIVE MEASURES

IN CASE OF FIRE: Full bunker gear recommended including a positive pressure self-contained breathing apparatus.

Section 6: Accidental Release Measures

PERSONAL PERCAUTIONS: Minimize skin contact. Avoid breathing vapors. Wear an appropriate respirator if exposure exceeds recommended guidelines. Remove sources of ignition. Wear suitable eye protection.

PRECAUTIONS TO PROTECT

THE ENVIRONMENT: Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with applicable government regulations.

SPILL CLEAN-UP PROCEDURE: Provide good ventilation. Use appropriate protective clothing. Carefully collect spilled material in closed containers and leave for disposal according to local regulations. Do not let water contaminate ponds or waterways. Rinse area with water.

Section 7: Handling and Storage

HANDLING PRECAUTION: Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Containers should be kept tightly closed. Avoid spilling, skin and eye contact. Eye wash and emergency shower must be available at the work place.

STORAGE PRECAUTION: Keep away from heat, sparks and open flame. Store separated from: Acids. Oxidizing materials. **STORAGE CRITERIA:** Chemical storage

Section 8: Exposure Controls/Personal Protection

Component	STD	TWA	STLE	TWA	STEL
Lubricating Oils, Petroleum, Base Oils Highly Refined	OSHA ACGIH			5 mg/m ³ as oil mist 5 mg/m ³ as nuisance dust mg/m ³ as oil mist	mg/m ³ as oil mist 40 mg/m ³ as nuisance dust mg/m ³ as oil mist
Overbased Calcium Sulfonate Complex Thickener	OSHA ACGIH	15 mg/m ³ (total) 1 mg/m ³ (inh)	as CaCO ₃ NIC 2005	5 mg/m ³ (resp) as MO 10 mg/m ³ **(e)	as CaCO ₃ as CaCO ₃
Molybdenum Sulfide (MoS ₂)	OSHA ACGIH	3 mg/m ³ (resp) as Mo		N/E 10 mg/m ³ (ihl) as Mo	

ENGINEERING CONTROLS: Using engineering controls to reduce air contamination to permissible exposure level.

VENTILATION: Use adequate general or local exhaust ventilation to keep airborne concentrations below exposure limits.

RESPIRATORY: No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

PROTECTIVE GLOVES: Chemical resistant gloves required for prolonged or repeated contact. Use protective gloves made of: Neoprene, nitrile, polyethylene or PVC.

PROTECTIVE CLOTHING: Wear appropriate clothing to prevent repeated or prolonged skin contact.

EYE PROTECTION: Use splash goggles or face shield where splashing is expected or can occur.

HYGIENIC WORK PRACTICES: Wash at the end of each work shift and before eating, smoking and using the toilet.

Section 9: Physical and Chemical Properties

Physical State	Grease
Vapor Pressure	<0.1 mmHg
Vapor Density (Air=1).....	> 5
Evaporation Rate	< 1
Volatile By Volume (%)	< 0.1 wt%
Solubility in Water	Insoluble
Density, g/mL	0.9700
Volatility (Volume)	Negligible
VOC.....	Unknown
pH.....	Essentially Neutral
Coefficient of Water/Oil Distribution	Not Determined
Odor	Mild or faint
Odor Threshold	Not Determined
Appearance	Dark Grey

Section 10: Stability and Reactivity

STABILITY: Normally stable

INCOMPATIBILITY: Avoid contact acids with oxidizing substances.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION OF PRODUCT: Oxides of: Carbon, Phosphorus, Sulfur

Section 11: Toxicological Information

ACUTE EXPOSURE

- Eye Irritation: Might be slightly irritating to eyes
- Skin Irritation: Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, defatting, and cracking of the skin.
- Respiratory Irritation: Inhalation hazard at room temperature is unlikely due to the low volatility of this product. Heating can generate vapors that may cause respiratory irritation, nausea and headaches.
- Ingestion Irritation: May cause stomach pain or vomiting.

CHRONIC EXPOSURE

Carcinogenicity: IARC: Not listed as a Group 1, 2A, or 2B agent. OSHA: Not regulated. NTP: Not listed

Teratogenicity: No Known Information

HEALTH WARNINGS: INHALATION: Heating can generate vapors that may cause respiratory irritation, nausea and headaches. In halation hazard at room temperature is unlikely due to the low volatility of this product. SKIN CONTACT: Repeated or prolonged contact can result in drying of the skin. EYE CONTACT: Slightly irritating INGESTION: Can cause stomach ache and vomiting

ROUTE OF ENTRY: Inhalation, Skin and/or eye contact, ingestion

TOXICOLOGICAL INFORMATION: No experimental toxicological data on the preparation as such is available.

COMPONENT: LUBRICATING OILS, PETROLEUM, BASE OILS, HIGHLY REFINED

TOXICOLGICAL DATA Carcinogenicity IP 346 <3%
 TOXIC DOSE – LD 50 > 5000 mg/kg (oral rat)
 TOXIC DOSE – LD 50 SKIN >2000 mg/kg (skn rbt)
 TOXIC CONC - LC50 > No information available (NIA)

COMPONENT OVERBASED CALCIUM SUFONATE COMPLEX THICKENER

TOXIC DOSE – LD 50 >2000 (estimated) mg/kg (oral rat)
 TOXIC DOSE – LD 50 SKIN > 2000 mg/kg (skn rbt)
 TOXIC CONC. – LC 50 >0.5 (estimated mg/l (inh-rat)

COMPONENT 1-DECENE, HOMOPOLYMER, HYDROGENATED (COMMON NAME: MEDIUM POLYALPHAOLEFINS

TOXIC DOSE – LD 50 > 2000 (estimated) mg/kg (oral rat)
 TOXIC DOSE – LD 50 SKIN > 2000 mg/kg (skn rbt)
 TOXIC CONC. – LC 50 > 5 mg/l

Section 12: Ecological Information

No data available on the adverse effects of this product on the environment.

Section 13: Disposal Considerations

Spilled material, unused contents and empty containers must be disposed of in accordance with local, state, and federal regulations.

Section 14: Transport Information

DOT HAZARD CLASS: Not Regulated
 TDGR CLASS Not Regulated
 SEA TRANSPORT NOTES: Not regulated per IMDG
 AIR TRANSPORT NOTES: Not regulated per IATA

Section 15: Regulatory Information

U.S. Federal Regulations

Component	SARA 302	CERCLA	SARA 313
Overbased Calcium Sulfonate Complex Thickener	No	No	No
1-Decene, Homopolymer, Hydrogenated (Common Name: Medium Polyalphaolefins)	No	No	No
Molybdenum Sulfide (MoS2)	No	No	No
Lubricating Oils, Petroleum, Base Oils, Highly Refined	No	No	No

Clean Air Act

Component	CAA Accidental Release Prevention
Lubricating Oils, Petroleum, Base Oils, Highly Refined	No
Overbased Calcium Sulfonate Complex Thickener	No

SARA Hazard Categories: None

US State Regulations

Component	CA	MA	FL	MN	NJ	PA	RI
Lubricating Oils, Petroleum, Base Oils, Highly Refined	No	No	No	No	No	Yes	No
Overbased Calcium Sulfonate Complex Thickener	No	No	No	No	No	No	No
Molybdenum Sulfide (MoS2)					Yes		

STATE REGULATORY STATUS: CALIFORNIA PROPOSITION 65: This product contains the following chemical(s) considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer, and for which warnings are now require:

Crystalline silica, cancer hazard, CAS# 14808-60-7, 32 ppm

WORPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM – WHMIS: WHIMIS NOT CONTROLLED: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. Not a controlled product.

Risk Phrases: R-22 Harmful if swallowed.
 R-36/37/38 Irritating to eyes, respiratory system and skin.
 R-51/53 Toxic to aquatic organisms, may cause long-term adverse effect in the aquatic environment.

Global Inventories

Component	CAN	US	EU	AUS	JAP	KOR	PHLP	CHN
Lubricating Oils, Petroleum, Base Oils, Highly Refined	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
Overbased Calcium Sulfonate Complex Thickener	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
1-Decene, Homopolymer, Hydrogenated (Common Name: Medium Polyalphaolefins)	DSL	Yes	Polymer	Yes	Yes	Yes	Yes	Yes
Molybdenum Sulfide (MoS2)	DSL	Yes	EINECS	Yes	PRTR1	Yes	Yes	Yes

CANADA CEPA: All components of this product comply with new substance notification requirements under the Canadian Environmental Protection Act (CEPA)

USA (TSCA) All Components in this product are listed on the US Toxic Substances Control Act (TSCA) Inventory or are exempt from TSCA Inventory requirements.

CANADA (DSL) All components in this product are listed on the Canada Domestic Substance List (DSL) or are exempt from DSL requirements.

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EUROPE (EINECS/ELINCS/NLP)	All Components in this product are listed on the European Inventory of New and Existing Chemical Substances (EINECS), the European List of Notified Chemical Substances (ELINCS), or the No Longer Polymers (NLP) list, or are exempt from EU listing requirements.
JAPAN (ENCS)	All components in this product are listed on the Japan Inventory of Existing and New Chemical Substances (ENCS) or are exempt from ENCS requirements.
PHILIPPINES (PICCS)	All components in this product are listed on the Philippines Inventory of Chemical Substances (PICCS) or are exempt from PICCS requirements.
AUSTRALIA (AICS)	All components in this product are listed on the Australian inventory of Chemical Substances (AICS) or are exempt from AICS requirements.
KOREA (ECL)	All components in this product are listed on the Korea Existing Chemicals (ECL) or are exempt from ECL requirements
CHINA (IECS)	All Components in this product are listed on the China Inventory of Existing Chemical Substances (IECS) or are exempt from IECS requirements.

Section 16: Other Information

NFPA-HMIS HAZARD RATING

HEALTH	Irritation, minor residual injury (1) – HMIS/NFPA
FLAMMABILITY	Burns only if pre-heated (1) - HMIS/NFPA
REACTIVITY	Normally Stable (0) - HMIS/NFPA
NCPA HMIS HAZARD INDEX	Slight: Slightly Toxic – May cause slight irritation (1)
PERSONAL PROTECTION INDEX	B – Safety Eyewear and Gloves
NPCA HMIS FLAMMABILITY INDEX	Burns only if pre-heated (1)
Tariff Code (Schedule B)	3403.19.0000 Lubricating preparations (including cutting-oil preparations, bolt or nut release preparations, antirust or anti corrosion preparations and mold release preparations, based on lubricants) and preparations of a kind used for the oil or grease treatment of textile materials, leather, furskins or other materials, but excluding preparations containing, as basic constituents, 70 percent or more by weight of petroleum oils or oils obtained from bituminous materials: Containing petroleum oils or oils obtained from bituminous materials: Others

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