

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME: **Hartland Group II Paraffinic Base Oils
75SN, 90SN, 110SN, 140SN, 250SN**

DISTRIBUTOR: **Hartland Lubricants & Chemicals**
914 Commercial Court
Onalaska, WI 54650

INFORMATION: 608-779-6353

REVISION DATE: November 29, 2011

SYNONYMS: Petroleum Oil, Lube Oil, Petroleum Hydrocarbon, Lubricant

PRODUCT USE: If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.

24 HOUR PROFESSIONAL EMERGENCY RESOURCE SERVICES (PERS) 1-800-633-8253

SECTION 2: HAZARDS IDENTIFICATION

Appearance: Amber liquid, petroleum odor.

CAUTION! HEALTH HAZARDS: May be harmful if swallowed. May irritate eyes and skin.

POTENTIAL HEALTH EFFECTS:

Inhalation (Breathing): This product is not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, high concentrations of generated vapor or mist may irritate the respiratory tract (nose, throat and lungs).

Eyes: May cause irritation.

Skin: May cause irritation. Not likely to be absorbed through the skin in harmful amounts.

Ingestion (Swallowing): May cause throat irritation, nausea, vomiting and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Medical Conditions Aggravated by Exposure: Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye and/or skin disorders may have increased susceptibility to the effects of exposure.

Chronic: Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching and/or swelling (dermatitis).

Cancer Information: No known carcinogenicity. For more information, see Section 11: Mutagenicity and Carcinogenicity. Also see Section 15: California.

Potential Environmental Effects: Not available. Also see Section 12: Ecological Information.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

CAS#	Component	Synonyms	Percent
64742-58-1	Lubricating oils, petroleum, hydrotreated spent	Hydrotreated paraffinic base oil	15-30, 30-60, 60-100
64742-01-4	Residual oils (petroleum), solvent refined	Bright Stock	0.1-1, 1-5; 5-10; 10-30; 30-60; 60-85
64742-57-0	Residual oils (petroleum), hydrotreated	Bright Stock	0.1-1, 1-5; 5-10; 10-30; 30-60; 60-85
64742-62-7	Residual oils (petroleum) solvent dewaxed	Bright Stock	0.1-1, 1-5; 5-10; 10-30; 30-60; 60-85
72623-83-7	Lubricating oils (petroleum), C>25, hydrotreated bright stock	Bright Stock	0.1-1, 1-5; 5-10; 10-30; 30-60; 60-85
64741-88-4	Petroleum distillates, solvent-refined heavy paraffinic	Bright Stock	0.1-1, 1-5; 5-10; 10-30; 30-60; 60-85

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Oil mist, mineral (8012-95-1).

SECTION 4: FIRST AID MEASURES

Inhalation (Breathing): Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

Eyes: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

Skin: Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists. If product is injected under pressure into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, a physician should immediately evaluate the individual as a medical emergency.

Ingestion (Swallowing): Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

Note to Physicians: Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

SECTION 5: FIRE FIGHTING MEASURES

Hazardous Combustion Products: Decomposition and combustion materials may be toxic. Burning may product sulfur oxides, aldehydes, ketones, carbon monoxide and unidentified organic compounds.

Conditions of Flammability: Sparks or flame. Product may burn, but does not ignite readily.

Protective Equipment for Fire Fighters: A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Extinguishing Media: Carbon dioxide, regular foam, dry chemical, water spray, or water fog. Water or foam may cause frothing.

NFPA 704 / Hazard Identification: This information is intended solely for the use by individuals trained in this system. Health Hazard – Blue – 1

Fire Hazard – Red – 1

Reactivity – Yellow – 0

Specific Hazard – White – n/a

Fire Fighting Instructions: Keep storage containers cool with water spray.

Fire and Explosion Hazards: Heated containers may rupture. “Empty” containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in Section 8: Exposure Controls / Personal Protection. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or absorb with compatible sorbent material and shovel with a clean, spark proof tool into a sealable container for disposal. Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

SECTION 7: HANDLING AND STORAGE

Handling: Keep away from sparks or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools and explosion-proof equipment. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. This product has a low vapor pressure and is not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.

Shipping and Storing: Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Component Exposure Limits

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)
ACGIH: 5 mg/m³ TWA (sampled by method that does not collect vapor)
(related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
OSHA: 5 mg/m³ TWA (related to Oil mist, mineral)
NIOSH: 5 mg/m³ TWA (related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
Residual oils (petroleum), solvent refined (64742-01-4)
ACGIH: 5 mg/m³ TWA (sampled by method that does not collect vapor)
(related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
OSHA: 5 mg/m³ TWA (related to Oil mist, mineral)
NIOSH: 5 mg/m³ TWA (related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)

Residual oils (petroleum) hydrotreated (64742-57-0)
ACGIH: 5 mg/m³ TWA (sampled by method that does not collect vapor)
(related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
OSHA: 5 mg/m³ TWA (related to Oil mist, mineral)
NIOSH: 5 mg/m³ TWA (related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
Petroleum Distillates, solvent-refined heavy paraffinic (64741-88-4)
ACGIH: 5 mg/m³ TWA (sampled by method that does not collect vapor)
(related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
OSHA: 5 mg/m³ TWA (related to Oil mist, mineral)
NIOSH: 5 mg/m³ TWA (related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
Residual oils (petroleum), solvent dewaxed (64742-62-7)
ACGIH: 5 mg/m³ TWA (sampled by method that does not collect vapor)
(related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
OSHA: 5 mg/m³ TWA (related to Oil mist, mineral)
NIOSH: 5 mg/m³ TWA (related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
Lubricating oils (petroleum), C>25, hydrotreated bright stock (72623-83-7)
ACGIH: 5 mg/m³ TWA (sampled by method that does not collect vapor)
(related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)
OSHA: 5 mg/m³ TWA (related to Oil mist, mineral)
NIOSH: 5 mg/m³ TWA (related to Oil mist, mineral)
10 mg/m³ STEL (related to Oil mist, mineral)

Engineering Controls: Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Personal Protective Equipment:

Respiratory Protection: No respiratory protection is normally required. Use NIOSH-certified P- or R-series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

Eye Protection: Where eye contact is likely, wear safety glasses; contact lens use is not recommended.

Skin Protection: Where skin contact is likely, wear chemical impervious gloves; use of natural rubber or equivalent is not recommended. When product is heated and skin contact is likely, wear heat-resistant gloves, boots, and other protective clothing. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant face shield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

Personal Hygiene: Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard leather articles, such as shoes, saturated with this product.

Other Protective Equipment: Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State, Appearance and Odor: Amber liquid, petroleum odor.

Odor Threshold: Not available

Molecular Weight: Not applicable

Specific Gravity: 0.87 (water=1) (approximately)

Density: 7.3 LB/US gal (870 g/l) (approximately)

Vapor Density: Not available

Vapor Pressure: less than 0.1 mm Hg at 68°F (20°C)

Boiling Point: 265°F (129.5°C) (minimum)

Freezing / Melting Point: Not available (pour point 27°F (-3°C) (maximum)

pH: Not applicable

Evaporation Rate: Not available

Solubility in Water: Insoluble

Flash Point: 329°F (165°C) (minimum)

Flammable Limits in Air: *Lower:* Not available *Upper:* Not available

Autoignition Temperature: Not available

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressures

Conditions to Avoid: Avoid sparks or flame

Incompatibility: Avoid oxidizing agents

Reactivity: Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

Hazardous Decomposition Products: None under normal temperatures and pressures. See also Section 5: Hazardous Combustion Products.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity Data: Component Analysis – LD50/LC50

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)

Oral LD50 Rat: >2000 mg/kg
 Dermal LD50 Rat: >2000 mg/kg
 Dermal LD50 Rabbit: >4480 mg/kg
 Residual oils (petroleum), solvent refined (64742-01-4)
 Inhalation LC50 Rat: 2.18 mg/L/4H
 Oral LD50 Rat: >5000 mg/kg
 Dermal LD50 Rabbit: >2000 mg/kg
 Residual oils (petroleum), hydrotreated (64742-57-0)
 Oral LD50 Mouse: 22g/kg (related to Oil mist, mineral)
 Petroleum distillates, solvent-refined heavy paraffinic (64741-88-4)
 Inhalation LC50 Rat: 2.18 mg/L/4H
 Oral LD50 Rat: >5000 mg/kg
 Dermal LD50 Rabbit: >2000 mg/kg
 Residual oils (petroleum), solvent dewaxed (64742-62-7)
 Inhalation LC50 Rat: 2.18 mg/L/4H
 Oral LD50 Rat: >5000 mg/kg
 Dermal LD50 Rabbit: >2000 mg/kg
 Lubricating oils (petroleum), C>25, hydrotreated bright stock (72623-83-7)
 Oral LD50 Rat: >5000 mg/kg

Acute Effects: May be harmful if swallowed. May irritate eyes and skin. May cause throat irritation, nausea, vomiting and diarrhea. Aspiration hazard: breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Repeated Dose Effects:

Based on best current information, there is no known human sensitization associated with this product.

Experimental evidence suggests that this product does not cause mutagenesis.

Based on best current information, there is no known reproductive toxicity associated with this product.

Based on best current information, there is no known teratogenicity associated with this product.

Carcinogenicity: Based on best current information, for the components listed in Section 3, there is no known carcinogenicity as regulated by OSHA; as categorized by ACGIH A1 or A2 substances; as categorized by IARC Group 1, Group 2A, or Group 2B agents; or as listed by NTP as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. Also see Section 15: California.

Target Organ Effects: Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation.

SECTION 12: ECOLOGICAL INFORMATION

Exotoxicity: Component Analysis – Ecotoxicity – Aquatic Toxicity

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)		
Test & Species		Conditions
96 Hr LC50 Brachydanio rerio	79.6 mg/L	semi-static
96 Hr LC50 Pimephales promelas	3.2 mg/L	semi-static
Residual oils (petroleum), solvent refined (64742-01-4)		
Test & Species		Conditions
96 Hr LC50 Pimephales promelas	>5000 mg/L	
Petroleum distillates, solvent-refined heavy paraffinic (64741-88-4)		
Test & Species		Conditions

96 Hr LC50 Oncorhynchus mykiss	>5000 mg/L
Residual oils (petroleum), solvent dewaxed (64742-62-7)	
Test & Species	Conditions
96 Hr LC50 Pimephales promelas	>5000 mg/L
Lubricating oils (petroleum), C>25, hydrotreated bright stock (72623-83-7)	
Test & Species	Conditions
96 Hr LC50 Lepomis macrochirus	>10000 mg/L

Persistence / Degradability: No information available for this product.

Bioaccumulation / Accumulation: No information available for this product.

Mobility in Environmental Media: No information available for this product.

Other Adverse Effects: No information available for this product.

Octanol / Water Partition Coefficient: Not available

Volatile Organic Compounds: Negligible

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal: Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact an Authorized Licensed Waste Oil Disposal Company regarding proper recycling or disposal.

USEPA Waste Code(s): This product, if discarded, is not expected to be a characteristic or listed hazardous waste. If recycled in the USA, it must be managed in accordance with 40 CFR Part 279. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

SECTION 14: TRANSPORT INFORMATION

DOT: Shipping Name: Not regulated as a hazardous material for transportation

TDG: Shipping Name: Not regulated as a dangerous good for transportation

Emergency Response Guide Number: Not applicable. Reference *North American Emergency Response Guidebook*.

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS

SARA SECTIONS 302 and 304: Based on the ingredients listed in Section 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA SECTIONS 311 AND 312: This product poses the following health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard

SARA SECTION 313: This product does not contain "toxic chemicals" subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

CERCLA: Based on the ingredients listed in Section 3, this product does not contain any "hazardous substances" listed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

TSCA: All the components of this product are listed on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA: This product may contain detectable amounts of benzo(a)anthracene CAS 56-55-3, benzo(k)fluoranthene CAS 207-08-9, benzo(a)pyrene CAS 50-32-8, benzo(b)fluoranthene CAS 205-99-2, chrysene CAS 218-01-9, dibenz(a,h)anthracene CAS 53-70-3, and indeno(1,2,3-cd)pyrene CAS 193-39-5. WARNING: These chemicals are known to the State of California to cause cancer. Our testing of this product indicates that these chemicals are not always detectable.

This product does not contain detectable amounts of any chemical known to the State of California to cause birth defects or other reproductive harm.

CANADIAN REGULATIONS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All the components of these products are listed on, or are automatically included as a "substance occurring in nature" on, or are exempted from the requirements to be listed on the Canadian Domestic Substances List (DSL).