



ProGuard Multipurpose Gear Oils 80W90, 85W140

MATERIAL SAFETY DATA SHEET

SECTION I: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ProGuard Multipurpose Gear Oil

SYNONYMS: Petroleum oil; Lube oil; Petroleum hydrocarbon; Lubricant; Automotive Gear Oil
80W90, 85W140

PRODUCT CODE 80W90, 85W140

PRODUCT USE: For lubricating differentials and final drives of automotive equipment.
If this product is used in combination with other products, refer to the
Material Safety Data Sheet for those products.

SUPPLIER: **Lyden Oil Company**
3711 LeHarps Road
Youngstown, Ohio 44515
www.lydenoil.com
1-800-362-9410

TECHNICAL INFORMATION: 1-800-362-9410, www.lydenoil.com

ISSUE: May 14, 2008

ORIGINAL ISSUE: May 14, 2008 **SUPERSEDES:** April 17, 2007

PREPARED BY: Product MSDS Coordinator **APPROVED BY:** MSDS Task Force

EMERGENCY TELEPHONE NUMBERS:

Lyden Oil Company 330-792-1100 Normal Business Hours (800) 362-9410 After Business Hours

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

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 No known carcinogenicity. For more information, see **SECTION 11: INFORMATION: 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	
72623-83-7	Lubricating oils (petroleum), C>25, hydrotreated bright stock	Bright Stock	27-30; 30-60; 60-93	
64742-62-7	Residual oils (petroleum), solvent dewaxed	Bright Stock	27-30; 30-60; 60-93	
64742-57-0	Residual oils (petroleum), hydrotreated	Bright Stock	27-30; 30-60; 60-93	
*	Polyolefin	Not Available	8-10; 10-30; 30-60; 60-68	
64742-58-1	Lubricating oils, petroleum, hydrotreated spent	Hydrotreated paraffinic base oil	0.1-1; 1-5; 5-10; 10-30; 30-45	
*	Mineral Oil	Not Available	3-5	
*	Phosphoric acid esters, amine salts	Not Available	1-2	
*	Olefin sulfide	Not Available	1-2	
64742-54-7	Petroleum distillates, hydrotreated heavy paraffinic	Not Available	0.1-1; 1-2	
72623-86-0	Lubricating oils, petroleum, C15-30, hydrotreated neutral oil-based	Not Available	0.3-1.0	
64741-88-4	Petroleum distillates, solvent-refined heavy paraffinic	Not Available	0.3-1.0	

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).

*Supplier and/or Lyden Oil advises that this is a trade secret.

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. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.

NOTE TO PHYSICIANS: Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident.

SECTION 5: FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS:

Decomposition and combustion materials may be toxic. Burining may produce hydrogen sulfide, sulfides, alkyl mercaptans, methacrylate monomers, aldehydes, nitrogen oxides, sulfur oxides phosphorous oxides, carbon monoxide, and unidentified organic compounds. .

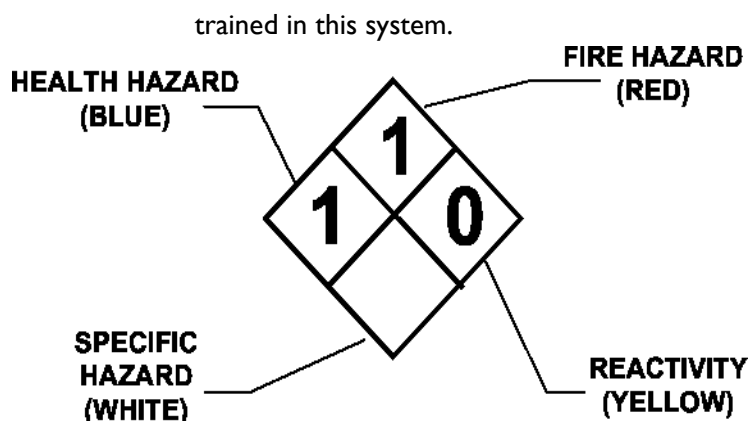
CONDITIONS OF FLAMABILITY: Sparks or flames. Product may burn, but does not ignite readily.

PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:

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



FIRE FIGHTING INSTRUCTIONS:

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 sorb with compatible sorbent material and shovel with a clean, sparkproof 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

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))

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))

Polyolefin

ACGIH: 5 mg/m³ TWA (sampled by method that does not collect vapor) (related to mist oil, 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, 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))

Mineral Oil

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, hydrotreated heavy paraffinic (64742-54-7)

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))

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))

Lubricating oils, petroleum, CI 5-30, hydrotreated neutral oil-based (72623-86-0)

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))

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: Use NIOSH-certified, air-purifying respirators with combination P- or

R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds Page 7 of 14

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;

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 protective gloves; use of natural rubber or equivalent gloves is not recommended. When product is heated and skin contact is likely, wear heat-insulating gloves, boots, and other protective clothing. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, 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.

OTHER PROTECTIVE EQUIPMENT: Where spill and splashes are likely, facilities storing or using this product should be equipped with 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: 0.89 (water = 1)

DENSITY: 7.4 LB/US gal (890 g/l)

VAPOR DENSITY: Not available

VAPOR PRESSURE: Not available

BOILING POINT: 475°F (246°C) (minimum)

FREEZING/MELTING POINT: Not available

pH: Not applicable

EVAPORATION RATE: Not available

SOLUBILITY IN WATER: Insoluble

FLASH POINT: 374°F(190°C) (minimum) Cleveland Open Cup

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

Residual oils (petroleum), hyd rotreated (64742-57-0)

Oral LD50 Mouse: 22 g/kg (related to Oil mist, mineral)

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

Polyolefin

Oral LD50 Mouse: 22 g/kg (related to Oil mist, mineral)

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

Mineral Oil (Trade Secret)

Oral LD50 Mouse: 22 g/kg (related to Oil mist, mineral)

Petroleum distillates, hydrotreated heavy paraffinic (64742-54-7)

Inhalation LC50 Rat: >2.18 mg/L/4H
Oral LD50 Rat: >2000 mg/kg
Dermal LD50 Rabbit: >2000 mg/kg

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

Lubricating oils, petroleum, CI 5-30, hydrotreated neutral oil-based (72623-86-0)

Inhalation LC50 Rat: 2.18 mg/L/4H
Oral LD50 Rat: >5000 mg/kg
Dermal LD50 Rabbit: >2000 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: No animal skin carcinogenicity tests of the hydrotreated paraffinic base (Page 10 of 14)

oil CAS 64742-58-1 have been conducted. Neither OSHA, ACGIH, IARC, nor NTP have classified this material as to its carcinogenic risk.

Based on best current information, for the other components listed in **SECTION 2**, 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.

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

ECOTOXICITY: Component Analysis - Ecotoxicity - Aquatic Toxicity

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

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

Petroleum distillates, hydrotreated heavy paraffinic (64742-54-7)

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

Lubricating oils, petroleum, CI 5-30, hydrotreated neutral oil-based

(72623-86-0)

Test & Species Conditions

96 Hr LC50 *Oncorhynchus mykiss* >5000 mg/L

PERSISTENCE/DEGRADABILITY: No information available for the product.

BIOACCUMULATION/ACCUMULATION: No information available for the product.

MOBILITY IN ENVIRONMENTAL MEDIA: No information available for the product.

OTHER ADVERSE EFFECTS: No additional information available.

OCTANOL/WATER Not available

PARTITION COEFFICIENT:

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.

USEPA WASTE CODES: 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.

TDG: Shipping Name: Not regulated as a dangerous good.

EMERGENCY RESPONSE Not applicable. Reference *North American Emergency*

GUIDE NUMBER: *Response Guidebook*

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS

**SARA SECTIONS
302 AND 304:**

Based on the ingredient(s) 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 hazard(s) 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" chemical(s) 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 ingredient(s) 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 arsenic CAS 7440-38-2, cadmium CAS 7440-43-9, ethyl acrylate CAS 140-88-5, and lead CAS 7439-92-1, from additives. This product may contain a detectable amount 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 ideno (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 these products indicates that these chemicals are not always detectable.

This product may contain detectable amounts of cadmium CAS 7440-43-9 and lead CAS 7439-92-1, from additives. WARNING: These chemicals (Page 13 of 14)

are known to the State of California to cause birth defects or other reproductive harm.

**CANADIAN
ENVIRONMENTAL
PROTECTION ACT
(CEPA):**

All the components of this product are listed on, or are exempted from the requirement to be listed on, the Canadian Domestic Substances List (DSL).

SECTION 16. OTHER INFORMATION

REVISION INFORMATION: Regulatory update, updated to ANSI Z400.1-2004 format.

This MSDS has been revised in the following sections:

Section 1 (Dates), Section 2 (Composition updated), Section 3 (switched to Emergency Overview), Section 5 (Fire Fields), Section 8 (Exposure Limits added), Section 11 (Toxicology fields updated), Section 12 (Ecotoxicity Information, fields updated), Section 16 (Revision Information).

LABEL/OTHER INFORMATION: Not available.

User assumes all risks incident to the use of this (these) product(s). To the best of our knowledge, the information contained herein is accurate. However, Lyden Oil assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product(s) as supplied to the user.