



**NORTH AMERICAN
LUBRICANTS, CO.**

MSDS

Material Safety Data Sheet

PureGreen Heavy-Duty Engine Oil

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1. PRODUCT AND COMPANY IDENTIFICATION

Synonyms: PureGreen Heavy-Duty 15W40 CI-4
PureGreen Extra-Duty 15W40 CJ-4

Product Code: 15001540CI4PG
15001540CJ4PG

Generic Name: Crankcase Oil
Chemical Family: Petroleum Hydrocarbon
Responsible Party: North American Lubricants Company
8502 E. Via De Ventura, Suite 240
Scottsdale, AZ 85258

Help Desk: Mon. – Fri. 7 a.m. – 5 p.m. PST, 1-800-430-6252

EMERGENCY OVERVIEW

24 Hour Emergency Telephone Numbers:

Spill, Leak, Fire or Accident	Poison Control
Call CHEMTREC	Control System
North America: (800) 424-9300	Cont. US: (800) 356-3129
Others: (703) 527-3887 (collect)	Outside US: (415) 821-5338

Health Hazards: Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling.

Physical Hazards: Keep away from all sources of ignition.

- Physical Form: Liquid
- Appearance: Clear brown
- Odor: Characteristic Petroleum

NFPA HAZARD CLASS: Health: 1 (Slight)
Flammability: 1 (Slight)
Reactivity: 0 (Least)

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Revised Sections: New MSDS

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2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>HAZARDOUS COMPONENTS</u>	<u>% VOLUME</u>	<u>EXPOSURE GUIDELINES</u>		
		Limits	Agency	Type
Zinc Compound CAS# Proprietary	1-2	Not Established		
<u>OTHER COMPONENTS</u>	<u>% VOLUME</u>	<u>EXPOSURE GUIDELINES</u>		
Lubricant Base Oil (Petroleum) CAS# Various	78-81	(See: Oil Mist, If Generated)		
Additives CAS# Proprietary	19-22	Not Established		

<u>REFERENCE</u>	<u>EXPOSURE GUIDELINE</u>		
	<u>Limits</u>	<u>Agency</u>	<u>Type</u>
Oil Mist, If Generated	5 mg/m ³	ACGIH	TWA
CAS# None	10 mg/m ³	ACGIH	STEL
	5 mg/m ³	OSHA	TWA
	2500 mg/m ³	NIOSH	IDLH

The base oil 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 64741-96-4; CAS 64741-97-5; CAS 64742-01-4;
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 64742-65-0; CAS 72623-85-9;
CAS 72623-86-0; CAS 72623-87-1

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies for further information.

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

Eye: Contact may cause mild eye irritation including stinging, watering and redness.

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Skin: Contact may cause mild skin irritation including redness, and a burning sensation. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin leading to dermatitis (inflammation). No harmful effects from skin absorption are expected.

Inhalation: No information available. Studies by other exposure routes suggest a low degree of toxicity by inhalation.

Ingestion: No harmful effects expected from swallowing.

Signs & Symptoms: Effects of overexposure may include irritation of the nose and throat, irritation of the digestive tract, nausea and diarrhea.

Cancer: Inadequate evidence available to evaluate the cancer hazard of this material. See Section 11 for carcinogenicity information of individual components, if any.

Target Organs: No data available for this material. See Section 11 for target-organ toxicity information of individual components, if any.

Developmental: No data available for this material. See Section 11 for target-organ toxicity information of individual components, if any.

Pre-Existing Medical Conditions: Conditions aggravated by exposure may include skin disorders.

4. FIRST AID MEASURES

Eye: If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persists, seek medical attention.

Skin: Wipe material from skin and remove contaminated shoes and clothing. Cleanse affected area(s) thoroughly by washing with mild soap and water and if necessary a waterless skin cleanser. If irritation or redness develops and persists, seek medical attention.

Inhalation: If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Ingestion: First Aid is not normally required; however, if swallowed and symptoms develop, seek medical attention.

Note to Physicians: High-pressure hydrocarbon injection injuries may produce substantial necrosis of underlying tissue despite an innocuous appearing external wound. Often these injuries require extensive emergency surgical debridement and all injuries should be evaluated by a specialist in order to assess the extent of injury.

Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

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5. FIRE FIGHTING MEASURES

Flammable Properties: Flash Point: 447°F/230°C (COC)OSHA
Flammability Class: Not applicable LEL/UEL%: No Data
Auto ignition Temperature: No Data

Unusual Fire & Explosion Hazards:

This material may burn, but will not ignite readily. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire.

Extinguishing Media:

Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Fire Fighting Instructions: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk.

Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

6. ACCIDENTAL RELEASE MEASURES

This material may burn, but will not ignite readily. Keep all sources of ignition away from spill/release. Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8).

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material maybe absorbed into an appropriate absorbent material.

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Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (phone number 800-424-8802).

7. HANDLING AND STORAGE

Handling: Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 8).

Do not wear contaminated clothing or shoes. Use good personal hygiene practice.

High pressure injection of hydrocarbon fuels, hydraulic oils or greases under the skin may have serious consequences even though no symptoms or injury may be apparent. This can happen accidentally when using high pressure equipment such as high pressure grease guns, fuel injection apparatus or from pinhole leaks in tubing of high pressure hydraulic oil equipment.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. Drums should be completely drained, properly bunged, and "Empty" promptly shipped to the supplier or a drum re-conditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1 and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material (see Section 10).

Protect container(s) against physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional ventilation or exhaust systems may be required.

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Personal Protective Equipment (PPE):

Respiratory: A NIOSH certified air purifying respirator with a Type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits (see Section 2).

Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Skin: The use of gloves impervious to the specific material handled is advised to prevent skin contact and possible irritation (see manufacturers literature for information on permeability).

Eye/Face: Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

Other Protective Equipment: A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

Flash Point: 400-447°F / 204-230°C (COC)

Flammable/Explosive Limits (%): No Data

Autoignition Temperature: No Data

Appearance: Clear brown

Physical State: Liquid

Odor: Characteristic Petroleum

pH: Not applicable

Vapor Pressure (mm Hg): <1

Vapor Density (air=1): >1

Boiling Point/Range: >555°F / >291°C

Freezing/Melting Point: No Data

Solubility in Water: Negligible

Specific Gravity: 0.87-0.89

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Percent Volatile:	Negligible
Evaporation Rate (nBuAc=1):	<1
Viscosity:	14.8-15.1 cSt @ 100°C, 114.3-115.7 cSt @ 40°C
Bulk Density:	7.341 lbs/gal

10. STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal conditions of storage and handling.

Conditions To Avoid:

Extended exposure to high temperatures can cause decomposition

Incompatible Materials:

Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products:

Combustion can yield carbon, nitrogen and sulfur oxides. Hydrogen sulfide and alkyl mercaptans may also be released.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Lubricant Base Oil (Petroleum) (CAS# Various)

Carcinogenicity: The petroleum base oils contained in this product have been highly refined by a variety of processes including solvent extraction, hydrotreating, and dewaxing to remove aromatics and improve performance characteristics. None of the oils used are listed as a carcinogen by IARC or OSHA.

12. DISPOSAL CONSIDERATIONS

This material under most intended uses would become used oil due to contamination by physical or chemical impurities. RECYCLE ALL USED OIL. While being recycled, used oil is regulated by 40 CFR 279. Use resulting in chemical or physical change or contamination may also subject it

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to regulation as hazardous waste. Under federal regulations, used oil is a solid waste managed under 40 CFR 279. However, in California, used oil is managed as hazardous waste until tested to show it is not hazardous. Consult state and local regulations regarding the proper handling of used oil. In the case of used oil, the intent to discard it may cause the used oil to be regulated as hazardous waste.

Contents should be completely used and containers emptied prior to discard. Rinsate may be considered a RCRA hazardous waste and must be disposed of with care and in compliance with federal, state and local regulations. Large empty containers, such as drums, should be returned to the distributor or a drum re-conditioner. To assure proper disposal of small empty containers, consult with state and local regulations and disposal authorities.

13. TRANSPORT INFORMATION

Hazard Class or Division: Not classified as hazardous.

14. REGULATORY INFORMATION

This material contains the following chemicals subject to the reporting requirements of **SARA** 313 and 40 CFR 372:

<u>COMPONENT</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Zinc Compound	Proprietary	1-2

Warning: This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of **California Proposition 65** (CA Health & Safety Code Section 25249.5).

This material has not been identified as a carcinogen by NTP, IARC or OSHA. See Section 11 for carcinogenicity information of individual components, if any.

EPA (CAERCLA) Reportable Quantity: -- None --

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15. DOCUMENTARY INFORMATION

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16. DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. **HOWEVER, NO**

WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.

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