

MATERIAL SAFETY DATA SHEET



1. Product and company identification

PRODUCT NAME	: Natural Gas Engine Oils Low Ash NGLA30 & NGLA40, Ashless NGE0 40
PRODUCT CODE	: 0164, 0160, 0166
SUPPLIER	: NEMCO RESOURCES LTD. 25 Midland Street Winnipeg, Manitoba R3E 3J6 Canada
Date Issued	: October, 2013
Emergency (call collect)	: 204-788-1030
CANUTEC	: 613-996-6666

2. Hazards identification

EMERGENCY OVERVIEW:

Physical State	: Viscous liquid
Color	: Amber
Odor	: Mild petroleum oil like
OSHA statues	: Product assessed in accordance with OSHA and determined not to be hazardous
WHMIS(Canada)	: Not controlled under WHMIS(Canada)

POTENTIAL ACUTE HEALTH EFFECTS

Inhalation	: No known significant effects or critical hazards
Ingestion	: No known significant effects or critical hazards
Eye	: Slightly irritating to the eyes
Skin	: Slightly irritating to the skin

POTENTIAL CHRONIC HEALTH EFFECTS

Chronic effects	: No known significant effects or critical hazards
Carcinogenicity	: Not listed as carcinogenic by OSHA, NTP or IARC
Mutagenicity	: No known significant effects or critical hazards
Developmental effects	: No known significant effects or critical hazards
Teratogenicity	: No known significant effects or critical hazards
Fertility effects	: No known significant effects or critical hazards
EFFECTS OF OVEREXPOSURE	: Not irritating according to U.S. and EC guidelines

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CASRN	Concentration
Mixture of severely hydrotreated and hydrocracked and/or solvent-refined base oil(petroleum).	Mixture	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the Concentrations applicable are classified as hazardous to health or the environment and hence require reporting in this section.

4. FIRST AID MEASURES

- EYE CONTACT** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If symptoms persist, get medical attention immediately.
- SKIN CONTACT** : Wash contact areas with soap and water. High-pressure accidental injection through the skin requires immediate medical attention for possible incision, irrigation and/or debridement
- INHALATION** : Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance.
- INGESTION** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. FIRE FIGHTING MEASURES

NFPA 704 Hazard Class

Health: 0 Flammability: 1 Instability: 0 (0-Minimal, 1-slight, 2-Moderate, 3-Serious, 4-Severe)

- EXTINGUISHING MEDIA** : Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F / 100°C. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.
- SPECIAL PROTECTIVE EQUIPMENT** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Fire Fighting Instructions** : For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, 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 and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. 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 safely. Avoid spreading burning liquid with water used for cooling purposes.

5. FIRE FIGHTING MEASURES

- SPECIAL REMARKS ON EXPLOSION HAZARDS HAZARDOUS COMBUSTION PRODUCTS**
- : Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition
 - : Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of sulfur, Nitrogen or Phosphorus may also be formed.

6. ACCIDENTAL RELEASE MEASURES

- NOTIFICATION PROCEDURES** : Report spills as required to appropriate authorities. Canadian Regulations require immediate reporting of all oil spills that could reach any waterway, including wetlands and intermittent dry creeks.
- PERSONAL PRECAUTIONS** : See Section 8
- ENVIRONMENTAL PRECAUTIONS** : Prevent spills from entering storm sewers or drains and contact with soil
- Methods for cleaning up
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Note: This product does NOT contain any hazardous substances reportable under CERCLA.

7. HANDLING AND STORAGE

- HANDLING** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- STORAGE** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	US-ACGIH	OSHA	Other
Lubricant Base Oil (Petroleum)	TWA: 5mg/m ³ STEL: 10 mg/m ³ as Oil Mist, if generated	TWA: 5 mg/m ³ as Oil Mist, if generated	---

- VENTILATION** : No special requirements under ordinary conditions of use and with adequate ventilation
- RESPIRATORY PROTECTION** : No special requirements under ordinary conditions of use and with adequate ventilation
- EYE PROTECTION** : Normal industrial eye protection practices should be employed
- SKIN PROTECTION** : No special equipment required. However, good personal hygiene practices should always be followed
- EXPOSURE LIMITS** : This product does not contain any components, which have recognized exposure limits. However, a exposure limit of 5.00 mg/m³ is suggested for oil mist

9. PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE** : Liquid
- ODOR THRESHOLD-ppm** : NE
- pH** : Not available
- BOILING POINT C (F)** : Not available
- MELTING POINT C (F)** : Not available
- FLASH POINT C (F)** : > 207(404)
- FLAMMABILITY** : Not established
- AUTO FLAMMABILITY** : Not established
- OXIDIZING PROPERTIES** : Not available
- VAPOR PRESSURE** : <1
- mmHg 20 C**
- VAPOR DENSITY:** : >1
- RELATIVE DENSITY, 15 C** : 0.850-0.880
- SOLUBILITY IN WATER** : Negligible
- EVAPORATION RATE** : Not established
- Viscosity, @ 100 °C cSt** : 30: 12.1; 40:13.5
- Pour Point, °C** : -26
- FREEZING POINT C(F)** : Not established

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.)	:	Stable
CONDITIONS TO AVOID	:	Extreme heat
INCOMPATIBILITY (MATERIALS TO AVOID)	:	Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS	:	Carbon monoxide
HAZARDOUS POLYMERIZATION	:	Not known to occur

11. TOXICOLOGICAL DATA

ACUTE TOXICOLOGY

Oral LD 50	:	Greater than 2000 mg/kg
Dermal LD50	:	Greater than 2000 mg/kg
Inhalation LC50	:	Greater than 5 mg/L

CHRONIC TOXICOLOGY

Lubricant base oil

Carcinogenicity: The petroleum base oil contained in this product has been highly refined by a variety of process including severe hydrocracking / hydroprocessing to reduce aromatics and improve performance characteristics. Under normal conditions of use, no significant health hazards are expected. All of oils meet the IP-346 criteria of less than 3% PAH's and are not considered carcinogens by NTP, IARC or OSHA

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS	:	Not known significant effects or critical hazards
<u>Aquatic ecotoxicity Conclusion / Summary</u>	:	Not available
<u>Biodegradability Conclusion / Summary</u>	:	Not available
Other adverse effects	:	Not known significant effects or critical hazards

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL	:	This product is suitable for burning in an enclosed, controlled burner for fuel value and for recycling at an approved facility. In addition, it can be disposed of at an approved waste disposal facility. Land farming and processing through sewage treatment facilities may be available disposal options but necessary approvals must first be obtained from appropriate regulatory authorities. Specific characteristics of the waste at the time of disposal may affect the availability of the above options
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13. DISPOSAL CONSIDERATIONS

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste and is not believed to exhibit characteristics of hazardous waste. See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the material as produced contains constituents which are not required to be listed in the MSDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

This material under most intended uses would become "Used Oil" due to contamination by physical or chemical impurities. Whenever possible, Recycle used oil in accordance with applicable federal and state or local regulations. Container contents should be completely used and containers should be emptied prior to discard.

14. TRANSPORT INFORMATION

USA DOT	:	NOT REGULATED BY USA DOT
RID/ADR	:	NOT REGULATED BY RID/ADR
IMO	:	NOT REGULATED BY IMO
IATA	:	NOT REGULATED BY IATA

15. REGULATORY INFORMATION

United States HCS Classification	:	Not regulated
Canada WHMIS (Canada)	:	Not controlled under WHMIS (Canada).

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.

EU regulations Risk phrases International regulations	:	This product is not classified according to EU legislation
Canada inventory	:	All components are listed or exempted
United States inventory (TSCA 8b)	:	All components are listed or exempted.
Europe inventory	:	All components are listed or exempted

16. OTHER INFORMATION

Emergency Overview

NFPA

This material is not considered hazardous according to OSHA criteria.



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