

1. Identification

Product identifier	KLONDIKE SAE 40 Low Ash Natural Gas Engine Oil
Other means of identification	SAE 40 Low Ash Natural Gas Engine Oil
Product code	
Recommended use	No restrictions on use known.
Recommended restrictions	Petroleum hydrocarbon
Chemical family	
Manufacturer	KLONDIKE Lubricants Corporation 3078 275th Street Langley, BC, Canada V4W 3L4 info@klondikelubricants.com www.klondikelubricants.com
	General Information 1-877-293-4691 Chemtrec (Within US) 1-800-424-9300 Chemtrec (International) 1-703-527-3887
Supplier information	Refer to Manufacturer

2. Hazard(s) Identification

This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Physical hazards	Not classified for physical hazards.
Health hazards	Not classified for health hazards.
Environmental hazards	Not currently regulated by Hazcom 2012 or WHMIS 2015. Consult section 12 for details.
OSHA defined hazards	No OSHA defined hazard classes.
Label elements	None required according to OSHA Hazcom 2012.
Signal Word	None.
Hazard statement(s)	The mixture does not meet the criteria for classification.
Precautionary statement(s)	
Prevention	None required.
Response	None required.
Storage	None required.
Disposal	None required.
Hazard(s) not otherwise Classified (HNOC)	Other hazards which do not result in classification: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Contact with eyes or skin may cause mild irritation.
Supplemental Information	None reported by the manufacturer.

3. Composition/information on ingredients
Mixture

Chemical name	Common name and synonyms	CAS number	Concentration (%)
Hydrotreated heavy paraffinic distillate	Hydrotreated heavy paraffinic (severely refined)	64742-54-7	0.00

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The % concentrations for the above listed chemicals will vary from batch to batch. Concentrations listed represent the actual concentration range for each chemical.

4. First-aid measures

Inhalation	If breathing is difficult, trained personnel should give oxygen. If breathing stops, provide artificial respiration. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	For skin contact, flush with water for at least 15 minutes, while removing contaminated clothing. If skin irritation occurs, get medical advice/attention.
Eye contact	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.
Ingestion	Do NOT induce vomiting. Rinse mouth. If irritation or symptoms develop, seek medical attention.
Most important symptoms and effects, both acute and delayed	May be mildly irritating to skin, eyes and respiratory system. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Indication of any immediate medical attention and special treatment needed	Treat symptomatically.
General Information	None reported by the manufacturer.

5. Fire-fighting measures

Suitable extinguishing media	Water. Water spray. Dry chemicals. Foam. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Thermal decomposition or combustion may liberate toxic gases or fumes.
Special protective equipment and precautions for fire-fighters	Firefighters should wear an approved full-face, self-contained breathing apparatus (SCBA) and impervious clothing.
Fire-fighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Avoid release to the environment.
General fire hazards	No unusual fire or explosion hazards noted.
Hazardous combustion products	Carbon oxides. Nitrogen oxides (NO _x).

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13).
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Use only with adequate ventilation. Wash thoroughly after handling.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Keep cool. Store away from incompatible materials.

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8. Exposure controls/personal protection

Occupational exposure limits

U.S. OSHA Exposure Limits (29 CFR 1910)

	Type	Value
Hydrotreated heavy paraffinic distillate (CAS 64742-54-7)	TWA	5 mg/m ³ (As 'Oil mist, mineral')

US. ACGIH Threshold Limit Values

	Type	Value
Hydrotreated heavy paraffinic distillate (CAS 64742-54-7)	TWA	5 mg/m ³ (inhalable) (severely refined mineral oils)

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye / face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Chemical resistant gloves recommended.

Other

Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health or safety professional or manufacturer for specific information.

Respiratory protection

Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

Thermal hazards

Not available.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state

Liquid.

Form

Viscous liquid

Color

Dark amber.

Odor

Mild petroleum odour.

Odor threshold

Not available.

pH

Not available.

Melting point /freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

>200°C
Cleveland closed cup

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Lower flammability/explosive limit

Not available.

Upper flammability/explosive limit

Not available.

Vapour pressure

Not available.

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Vapour density	Not available.
Relative density	0.8723
Solubility(ies)	
Other solubility(ies)	Not available.
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	140
Other information	
Explosive properties	Not explosive
Oxidizing properties	Not available.
Specific gravity	0.8723
Critical temperature	Not available.
VOC	Not available.
Volatilities %	Not available.
Flame projection length	Not available.
Flashback observed	Not available.
Absolute pressure of container	Not available.
Other physical/chemical data	None known or reported by the manufacturer.

10. Stability and reactivity

Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous polymerization does not occur.

Conditions to avoid

High temperatures, flame, sparks, high humidity, light, water, and moisture.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

Carbon oxides.
Nitrogen oxides (NOx).

11. Toxicological information

Information on likely routes of exposure

Routes of entry inhalation YES

Routes of entry skin & eye YES

Routes of entry Ingestion YES

Routes of exposure skin absorption YES

Most important

symptoms/effects, acute and delayed

May be mildly irritating to skin, eyes and respiratory system. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on toxicological effects

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Acute toxicity

See below for toxicological data on the substance.

Components	Species	Test Results
Hydrotreated heavy paraffinic distillate		
Acute		
<i>Dermal</i>		
LD50	Rabbit	>5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	>5.53 mg/L
<i>Oral</i>		
LD50	Rat	>15,000 mg/kg
Skin Corrosion/Irritation	May cause mild skin irritation.	
Serious eye damage/Irritation	May cause mild eye irritation.	
Respiratory or skin sensitization	Not expected to be a skin or respiratory sensitizer.	
Germ cell mutagenicity	Not expected to be mutagenic.	
Carcinogenicity	No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.	
Reproductive toxicity	This product is not expected to cause reproductive effects.	
Specific target organ toxicity - single exposure	Not classified as a specific target organ toxicity-single exposure.	
Specific target organ toxicity - repeated exposure	Not classified as specific target organ toxicity-repeated exposure.	
Chronic effects	Prolonged or repeated skin contact may cause defatting and drying resulting in irritation and possible dermatitis.	
Aspiration toxicity	Not expected to be an aspiration hazard.	
Further information	None reported by the manufacturer.	

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicity data:				
Ingredients	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Hydrotreated heavy paraffinic distillate	64742-54-7	>5000 mg/L (Rainbow trout)	n/av	none

Ingredients	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Hydrotreated heavy paraffinic distillate	64742-54-7	n/av	n/av	none

Ingredients	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Hydrotreated heavy paraffinic distillate	64742-54-7	n/av	n/av	none

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Persistence and degradability

Not readily biodegradable.

Bioaccumulation potential

Not available.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Hydrotreated heavy paraffinic distillate (CAS 64742-54-7)	3.9-6	N/Av

Mobility in soil

Not available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal consideration

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

49CFR/DOT	Not regulated as dangerous goods
ICAO/IATA	Not regulated as dangerous goods
IMDG	Not regulated as dangerous goods
TDG	Not regulated as dangerous goods

General information

Keep away from heat, sparks and open flame. - No smoking.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.

15. Regulatory information

US Federal Information:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory list.

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	<u>CAS #</u>	<u>TSCA Inventory</u>	<u>CERCLA Reportable Quantity(RQ) (40 CFR 117.302):</u>	<u>SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:</u>	<u>SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical</u>	
					<u>Toxic Chemical</u>	<u>de minimus Concentration</u>
Hydrotreated heavy paraffinic distillate	64742-54-7	Yes	N/Av	N/Av	No	N/Av

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Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - NO
	Delayed Hazard - NO
	Fire Hazard - NO
	Pressure Hazard - NO
	Reactivity Hazard - NO

US state regulations

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Hydrotreated heavy paraffinic distillate	64742-54-7	No	N/Ap	No	No	No	No	No	No

Canadian Information:

Not regulated.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

International Inventories

Components listed below are present on the following International Inventory lists:

<u>Ingredients</u>	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Hydrotreated heavy paraffinic distillate	64742-54-7	265-157-1	Present	Present	(2)-10; (9)-1692; (9)-1692	KE-12546	Present	No data available.

16. Other information, including date of preparation or last revision

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Legend

- ACGIH: American Conference of Governmental Industrial Hygienists
- CA: California
- CAS: Chemical Abstract Services
- CEPA: Canadian Environmental Protection Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- CPR: Controlled Products Regulation
- CSA: Canadian Standards Association
- DOT: Department of Transportation
- DSL: Domestic Substances List
- EPA: Environmental Protection Agency
- HMIS: Hazardous Materials Identification System
- HPA: Hazardous Products Act
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- IMDG: International Maritime Dangerous Goods
- Inh: Inhalation
- LC: Lethal Concentration
- LD: Lethal Dose

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MA: Massachusetts
MN: Minnesota
N/Ap: Not Applicable
N/Av: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OEL: National occupational exposure limits
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
PPE: Personal Protective Equipment
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RQ: Reportable Quantity
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average
WEL: Workplace Exposure Limit
WHMIS: Workplace Hazardous Materials Identification System

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

HMIS Rating

: *- Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe
Health: 0 Flammability: 0 Reactivity: 0

NFPA Rating

0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe
: *Health: 0 Flammability:0 Instability:0 Special Hazards: None.*

Disclaimer

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Bibliography

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2. International Agency for Research on Cancer Monographs, searched 2016
3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2016(Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists - 2016 version.
6. California Proposition 65 List - 2016 version.
7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal,2016.