



SAFETY DATA SHEET

1. Identification

Product identifier	KLONDIKE ISO AW46 Hydraulic Oil		
Other means of identification			
Product code	ISO AW46		
Recommended use	Hydraulic Fluid		
Recommended restrictions	None known.		
Manufacturer/Importer/Supplier/Distributor information			
Manufacturer			
Company name	KLONDIKE Lubricants Corporation		
Address	3078 275th Street Langley, BC V4W 3L4 Canada		
Telephone	General Information	1-877-293-4691	
Website	www.klondikelubricants.com		
E-mail	info@klondikelubricants.com		
Emergency phone number	Chemtrec (Within US)	1-800-424-9300	
	Chemtrec (International)	1-703-527-3887	
Supplier	Refer to Manufacturer		

2. Hazard(s) identification

Physical hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.
Health hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.
Environmental hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.
OSHA defined hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.

Label elements

Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	

Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC)	No OSHA defined hazard classes. Other hazards which do not result in classification: May cause mild skin and eye irritation. May cause respiratory irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Product may present an aspiration hazard, if ingested in large amounts. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
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Supplemental information	None.
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3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Distillates (petroleum), Hydrotreated Heavy Paraffinic	HEAVY BASE OILS (HEAVY PARAFFINIC HYDROTREATED DISTILLATE)	64742-54-7	30 - 60
Distillates (petroleum), Hydrotreated Light Paraffinic	Not Available	64742-55-8	30 - 60

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	May be mildly irritating to skin, eyes and respiratory system. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms may include stinging and tearing. Symptoms may include upper respiratory irritation, coughing, and breathing difficulties. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Product may present an aspiration hazard, if ingested in large amounts. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Ventilate the contaminated area. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.
Hazardous combustion products	Carbon oxides. Sulphur oxides. Phosphorus oxides. Nitrogen oxides (NO _x). Hydrocarbons.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Use only non-sparking tools. Avoid inhalation of vapors and spray mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	The product is immiscible with water and will spread on the water surface. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Absorb in vermiculite, dry sand or earth and place into containers. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not ingest. Avoid inhalation of vapors and spray mists. Avoid contact with eyes, skin, and clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Handle and open container with care.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Light Paraffinic (CAS 64742-55-8)	PEL	5 mg/m ³	Mist.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Light Paraffinic (CAS 64742-55-8)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.

Biological limit values

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

Appropriate engineering controls

If exposure limits have not been established, maintain airborne levels to an acceptable level. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Advice should be sought from glove suppliers.

Other

Wear suitable protective clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Seek advice from respiratory protection specialists.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

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

Liquid.

Color

Dark amber.

Odor

Mild petroleum odor.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

280 °C (536 °F)

Flash point

230.0 °C (446 °F)

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

< 1 kPa

Vapor density

> 10

Relative density

Not available.

Solubility(ies)

Solubility (water)

Insoluble

Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	46 cSt
Other information	
Percent volatile	Negligible
Specific gravity	0.86

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials. Do not use in areas without adequate ventilation.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Phosphorus oxides. Sulfur oxides. Nitrogen oxides (NOx). Hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Inhalation	Inhalation of vapors/fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing or difficulty breathing.
Skin contact	May cause mild skin irritation.
Eye contact	May cause mild eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics May cause mild skin and eye irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms may include stinging and tearing. May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing, and breathing difficulties. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Product may present an aspiration hazard, if ingested in large amounts. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

Information on toxicological effects

Acute toxicity See below for individual ingredient acute toxicity data.

Components	Species	Test Results
Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5 mg/l, 4 Hours (Mist)
<i>Oral</i>		
LD50	Rat	> 15000 mg/kg
Distillates (petroleum), Hydrotreated Light Paraffinic (CAS 64742-55-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 4000 mg/m3, 4 hours
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	May be irritating to the skin.
Serious eye damage/eye irritation	Direct contact may cause very mild, temporary irritation and redness.
Respiratory or skin sensitization	
Respiratory sensitization	This product is not expected to cause respiratory sensitization.
Skin sensitization	Not expected to be a skin sensitizer.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Distillates (petroleum), Hydrotreated Light Paraffinic (CAS 64742-55-8) Known To Be Human Carcinogen.

Reproductive toxicity	This product is not expected to cause reproductive or developmental 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 a specific target organ toxicity -repeated exposure.
Chronic effects	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Further information	This product has no known adverse effect on human health.
Aspiration toxicity	Not expected to be hazardous by OSHA criteria.

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.

Components	Species		Test Results
Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
<i>Chronic</i>			
Crustacea	NOEC	Water flea (Daphnia magna)	10 mg/l, 21 days
Distillates (petroleum), Hydrotreated Light Paraffinic (CAS 64742-55-8)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
<i>Chronic</i>			
Crustacea	NOEC	Water flea (Daphnia magna)	10 mg/l, 21 days

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	Distillates, (petroleum), Hydrotreated Heavy Paraffinic is considered to be not readily biodegradable.
Bioaccumulative potential	No data available.
Mobility in soil	No data 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 considerations

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

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

US federal regulations This product is not known to be 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.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

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

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Distillates (petroleum), Hydrotreated Light Paraffinic (CAS 64742-55-8)

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Distillates (petroleum), Hydrotreated Light Paraffinic (CAS 64742-55-8)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 02-16-2017**Version #** 02

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