



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	KLONDIKE Multi-Purpose Grease	
Version #	02	
Issue date	01-26-2017	
CAS #	Mixture	
Product code	Multi-Purpose	
Product use	Multi-Purpose	
Manufacturer information	KLONDIKE Lubricants Corporation 3078 275th Street Langley, BC V4W 3L4 Canada 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	Refer to Manufacturer	

2. Hazards Identification

Emergency overview	CAUTION
	May cause mild skin and eye irritation. May cause respiratory irritation. Prolonged or repeated overexposure may cause liver effects.
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	May cause mild eye irritation.
Skin	May cause mild skin irritation on prolonged contact.
	Skin absorption: Not expected to be absorbed through the skin.
Inhalation	May cause irritation to the nose, throat and upper respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic effects	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Prolonged or repeated overexposure may cause liver effects.
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.

3. Composition / Information on Ingredients

Non-hazardous components	CAS #	Percent
Distillates (petroleum), Hydrotreated Heavy Naphthenic	64742-52-5	80 - 100
Octadecanoic Acid, 12-hydroxy-	106-14-9	7 - 13

4. First Aid Measures

First aid procedures	
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.

General advice

If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties

Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapors are heavier than air and may spread along floors. Vapors may travel considerable distance to a source of ignition and flash back.

Extinguishing media

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the 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.

Explosion data

Sensitivity to static discharge

Not expected to be sensitive to static discharge.

Sensitivity to mechanical impact

Not expected to be sensitive to mechanical impact.

Hazardous combustion products

Carbon oxides. Sulphur oxides. Phosphorus oxides. Nitrogen oxides (NO_x). Hydrocarbons.

6. Accidental Release Measures

Personal precautions

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 MSDS.

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 MSDS.

7. Handling and Storage

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.

Storage

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 MSDS).

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
Oil, Mineral (CAS 64742-52-5)	PEL	5 mg/m ³	Mist.
		2000 mg/m ³	
		500 ppm	

Biological limit values

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

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.
Personal protective equipment	
Eye/face protection	If contact is likely, safety glasses with side shields are recommended. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
Skin protection	Wear suitable protective clothing as protection against splashing or contamination.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Seek advice from respiratory protection specialists.
Hand protection	Wear appropriate chemical resistant gloves. Advice should be sought from glove suppliers.

9. Physical & Chemical Properties

Appearance

Physical state	Liquid.
Form	Grease.
Color	Red.
Odor	Mild petroleum odor.
Odor threshold	Not available.
pH	Not available.
Vapor pressure	Not available.
Vapor density	> 1
Boiling point	> 300 °C (572 °F)
Melting point/Freezing point	Not available.
Solubility (water)	Insoluble
Specific gravity	0.91
Relative density	Not available.
Flash point	> 200.0 °C (392 °F)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Evaporation rate	Not available.
Viscosity	220 cSt
Percent volatile	Nil
Partition coefficient (n-octanol/water)	Not available.

10. Chemical Stability & Reactivity Information

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
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.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

11. Toxicological Information

Toxicological data

Product	Species	Test Results
KLONDIKE Multi-Purpose Grease (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2222.2 mg/kg
<i>Inhalation</i>		
LC50	Rat	5.81 mg/l, 4 hours
<i>Oral</i>		
LD50	Rat	5263.2 mg/kg
Components	Species	Test Results
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5.23 mg/l, 4 hours Mist
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Octadecanoic Acid, 12-hydroxy- (CAS 106-14-9)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	No data in literature
<i>Inhalation</i>		
LC50	Rat	No data in literature
<i>Oral</i>		
LD50	Rat	> 10000 mg/kg
Acute effects	May cause irritation of the gastrointestinal tract. May cause respiratory irritation.	
Sensitization	Not expected to be a respiratory sensitizer. Not expected to be a skin sensitizer.	
Chronic effects	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
Skin corrosion/irritation	May be irritating to the skin.	
Serious eye damage/irritation	Direct contact may cause very mild, temporary irritation and redness.	
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Reproductive effects	This product is not expected to cause reproductive or developmental effects.	
Teratogenicity	This product is not expected to be a teratogen.	
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.	
Synergistic materials	None known.	

12. Ecological Information

Ecotoxicological data	No ecotoxicity data noted for the ingredient(s).
Ecotoxicity	Not available.
Environmental effects	Not available.
Aquatic toxicity	Not available.

Persistence and degradability Distillates, (petroleum), Hydrotreated Heavy Paraffinic is considered to be not readily biodegradable.

Mobility in environmental media The product is immiscible with water and will spread on the water surface.

13. Disposal Considerations

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

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

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

WHMIS status Non-controlled

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

HMIS® ratings Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 1
Instability: 0

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Bibliography Not available.

**Legend to abbreviations and
acronyms used in the SDS**

Not available.