

1. Identification

Product identifier	KLONDIKE Brake Clean - Aerosol	
Other means of identification		
Product code	Brake Clean - Aerosol	
Recommended use	Brake Parts Cleaner	
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	Flammable aerosols	Category 1
	Gases under pressure	Compressed gas
Health hazards	Skin corrosion/irritation	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific Target Organ Toxicity, Repeated Exposure	Category 2
	Aspiration Hazard	Category 1
Environmental hazards	Acute Aquatic Hazard	Category 1

OSHA defined hazards

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Pressurized container: may burst if heated. Causes eye irritation. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. May cause damage to the liver and kidneys through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid release to the environment. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Wash hands thoroughly after handling. Wear protective gloves.

Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER if you feel unwell. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical attention. IF SWALLOWED: Immediately call a POISON CENTER. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

Storage

Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F. Store in a well-ventilated place.

Disposal

Dispose of contents/ container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Heptane	n-Heptane	142-82-5	60-100
Carbon Dioxide (gas)	CO2	124-38-9	1 - 5

4. First-aid measures

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance. If breathing is difficult, give oxygen and get medical attention. Do not give adrenaline, epinephrine or similar drugs following exposure to this product.

Skin contact

Wash thoroughly with soap and lukewarm water.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation persists.

Ingestion

Do not induce vomiting, get medical attention. Consult poison control center or physician IMMEDIATELY.

Most important symptoms/effects, acute and delayed

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause redness and pain.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. In case of shortness of breath give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

5. Fire-fighting measures

Suitable extinguishing media

Dry chemical powder. Carbon dioxide. Foam, water spray or fog.

Unsuitable extinguishing media

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

Specific hazards arising from the chemical

Contents under pressure. Pressurized container may explode when exposed to heat or flame.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

General Fire Hazards

Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid walking through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 08).

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13). Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Environmental precautions

Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

7. Handling and storage

Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Avoid contact with eyes, skin, and clothing. Avoid breathing vapour of this product. Avoid contact with skin and eyes. Avoid prolonged exposure. Use in well-ventilated areas.

Conditions for safe storage, including any incompatibilities

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C (122°F). Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store away from incompatible materials (see Section 10).

8. Exposure controls/personal protection

INGREDIENTS	ACGIH TLV		OSHA PEL		NIOSH REL
	TWA	STEL	PEL	STEL	
Heptane	400 ppm	500 ppm	500 ppm	Not available	85 ppm for n-Heptane, 440 ppm for a ceiling conc.
Carbon Dioxide	5000 ppm	30000 ppm	9000 mg/m3	Not available	STEL: 30000ppm; TWA: 5000ppm

Appropriate Engineering Controls

Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved..

Individual Protection Measures:

Eye/Face Protection

Do not get in eyes. Wear safety glasses with side-shields.

Skin Protection

Chemical resistant gloves are recommended. Avoid contact with the skin. Wear appropriate chemical resistant clothing.

Respiratory Protection

Use dust and mist respirator.

Thermal Hazards

None Known.

General Hygiene Considerations

When using, do not eat, drink or smoke. 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 prior to use.

9. Physical and chemical properties

Form	Aerosol.
Physical Appearance	Mist.
Odor	Hydrocarbons.
Odor Threshold (ppm)	N/A.
Specific Gravity (Liquid)	0.680-0.700.
Specific Gravity (Aerosol)	0.680 - 0.720.
Aerosol Vapour Pressure (psig, 21°C)	83-130.
Vapour Density (Air=1)	> 1.
pH	N/A.
Boiling Point liquid (°C)	98 °C (209°F).
Melting/Freezing Point (°C)	N/A.
Evaporation Rate (n-Butyl Acetate = 1)	N/A.
Flash point, Liquid (°C), Method	-4 °C (25°F). Tag Closed Cup.
VOC Content	95-100 %wt.
Solubility in water	Nil.

9. Physical and chemical properties

Aerosol Flame Projection	No data.
Auto Ignition Temperature (°C)	223. (Liquid).
Lower Flammable Limit (% Vol)	1.1. (Heptane).
Upper Flammable Limit (% Vol)	7.0. (Heptane).
Coefficient of Water/Oil Distribution	N/A.
Viscosity	N/A.

10. Stability and Reactivity

Reactivity	Product not reactive under normal conditions of use.
Chemical Stability	Material is stable under normal conditions.
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Avoid sources of heat and flame, and electrostatic charge.
Incompatible Materials	Strong oxidizing agents. Strong acids.
Hazardous Decomposition Products	Carbon Oxides.

11. Toxicological Information

INGREDIENTS	LC50	LD50
Heptane	103,000 mg/L (Rat,4hr)	>15,000 mg/kg (rat - oral); >2,000 mg/kg (Dermal,Rabbit)
Carbon Dioxide	Not available	Not available

Information on Likely Routes of Exposure:

Routes of entry - Inhalation	Yes.
Routes of entry - Skin & Eye	Yes.
Routes of entry - Ingestion	Yes.
Routes of entry - Skin Absorption	Yes.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Defatting of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Acute Toxicity

Toxic if inhaled.

Skin Corrosion/Irritation

Causes mild skin irritation. Prolonged contact may be more irritating.

Serious Eye Damage/Eye Irritation

Causes serious eye irritation.

Respiratory or Skin Sensitization

May cause sensitization by skin contact.

Germ Cell Mutagenicity

Xylene: Not expected to be mutagenic.

Carcinogenicity

Xylene (CAS#: 1330-20-7): ACGIH A4 Not Classified as a human carcinogen; IARC 3 Not classifiable as to carcinogenicity to humans.

Reproductive Toxicity

STOT - Single Exposure

Specific target organ toxicity single exposure Category 3. May cause drowsiness and dizziness.

STOT - Repeated Exposure

No data available .

Aspiration Hazard

Chronic Effects

Prolonged inhalation may be harmful.

12. Ecological Information

Ecotoxicity

May be dangerous for the environment. No data is available on the product itself. Should not be released into the environment. This product contains the following substance which may also be hazardous for the environment: Heptane (CAS#:142-82-5): Toxicity to fish: LC50 1.284 mg/L, 96 hrs; Toxicity to other aquatic invertebrates: 0.1 mg/L, 96 hrs; Toxicity to algae: EL50 4.338 mg/L, 72 hrs.

Persistence and degradability

The product itself has not been tested.

Bioaccumulation Potential

The product itself has not been tested.

Mobility in Soil

The product itself has not been tested.

Other Adverse Effects

None Known.

13. Disposal Considerations

Appropriate Disposal Methods

Dispose in accordance with local, provincial and federal regulations.

14. Transport Information

TDG (Canada- Road)
DOT (US-Road)
IMDG (International- Marine)
IATA (International- Air)

AEROSOLS, Class 2.1, UN1950.
AEROSOLS, Class 2.1, UN1950, LTD QTY, Consumer commodity ORM-D.
AEROSOLS, Class 2.1, UN1950.
AEROSOLS, Class 2.1, UN1950, LTD QTY.

15. Regulatory Information

Canada Regulations

WHMIS Classification. A: Compressed gas. B5: Flammable Aerosol. D2B: Material causing other toxic Materials.

Canadian Environmental Protection Act (CEPA)

All ingredients listed appear on the Domestic Substances List (DSL).

Domestic Substances List (DSL)

Non Domestic Substances List (NDSL)

US Regulations

Environmental Protection Act: Constituents of this product are included on the TSCA inventory. OSHA (29CFR 1910.1200).

16. Other Information

Disclaimer:

The information contained herein is based on data considered accurate. No guarantee or warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. The SDS provider assumes no responsibility for personal injury or property damage to vendors or users or third parties, caused by the material. Such vendors or users assume all risks with the use of the material. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. .

Abbreviations

ACGIH: American Conference of Governmental Industrial Hygienists; CAS: Chemical Abstract Service; NIOSH: National Institute for Occupational Safety and Health, OSHA: Occupational Safety and Health Administration- USA; TSCA: Toxic Substances Control Act 1976-USA; PEL: Permissible Exposure Limit; REL: Recommended Exposure Limit; TLV: Threshold Limit Value; VOC: Volatile Organic Content; WHMIS: Workplace Hazardous Materials Information System STOT: Specific Target Organ Toxicity.

Prepared by

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