MATERIAL SAFETY DATA SHEET

SECTION 1 –PRODUCT IDENTIFICATION AND USES

Product Name	**CLEAN & LUBE (CH100)**
Synonyms	Not available.
Chemical Name	Not applicable.
Chemical Formula	Chemical mixture.
Chemical Family	Petroleum hydrocarbon.
Supplier	DEK Canada Inc. 1928, St-Regis Blvd., Dorval, Quebec H9P 1H6 PHONE: 514-685-5800
Material Uses	Cleans and lubricates all electrical contacts.

CI#	Not applicable
DSL	Not available.
CAS#	Not applicable.
Code	0528-01-007
Molecular Weight	Not applicable.
Manufacturer	Manufactured for: DEK Canada Inc.

SECTION 2 –HAZARDOUS INGREDIENTS

Name	CAS#	% by Weight	LC_{50}/LD_{50}
1) Petroleum distillate	64742-48-9	10-30	Not available.
2) Light Petroleum Naphtha	64742-49-0	30-60	Not available.
3) Ethanol	64-17-5	10-30	ORAL (LD50): Acute: 7060 mg/kg [Rat]. 3450 mg/kg [Mouse]. 6300 mg/kg[Rabbit]. VAPOR (LC50): Acute: 31623 ppm 4 hour(s) [Rat].
4) Isopropanol	67-63-0	5-10	ORAL (LD50): Acute: 3600 mg/kg [Mouse]. 5045 mg/kg [Rat]. VAPOR (LC50): Acute: 16000 ppm 4 hour(s) [Rat].
5) Carbon dioxide	124-38-9	1-5	Not available.

SECTION 3 –PHYSICAL DATA

Physical State and Appearance	Liquid (Aerosol Concentrate).
pH (1% Soln/Water)	Not applicable.
Odor Threshold	Not available.
Volatility	Not available.
Evaporation Rate	Not available.
Melting Point	Not available.
Boiling Point	The lowest known value is 64°C (147.2°F) (Light Petroleum Naphtha).
Density	0.7182 @ 20°C (68°F) (Water=1)
Vapor Density	Greater than 1 (Air=1)
Vapor Pressure	Not available.
LogK_{ow}	Not available.
Ionicity (Surface Active Agent)	Not available.
Critical Temperature	Not available.
Instability Temperature	Not available.
Conditions of Instability	Heat, open flames, static discharge or any other source of ignition.
Dispersion Properties	Is not dispersed in water.
Solubility	Insoluble in water.

Odor	Pleasant.
Taste	Not available.
Color	Clear, colourless

SECTION 4 –FIRE AND EXPLOSION DATA

The Product is:	Extremely Flammable Aerosol
Auto-ignition Temperature	The lowest known value is 257^{o}C (494.6^{o}F) (Light Petroleum Naphtha).
Products of Combustion	These products are carbon monoxide, carbon dioxide, silicone dioxide, traces of formaldehyde and other irritating gases.
Flash Points	The lowest known value is CLOSED CUP: Less than –18^{o}C (0^{o}F) (Tagliabue). (Light Petroleum Naphtha).
Flammable Limits	Lower: 0.6% Upper: 19%
Extinguishing Media	SMALL FIRE: Use DRY chemicals, carbon dioxide or foam. LARGE FIRE: Use water spray or fog. Cool containing vessels with water spray in order to prevent pressure build-up, auto-ignition or explosion. Avoid spreading burning liquid with water used to cool containers. Self-contained respiratory protection should be provided for firefighters.
Flammability	The flammability of an aerosol by WHMIS definition is determined by its flame-extension or flashback of this product is greater than 45 cm. Canadian NFC, Level 3 Aerosol. Do not use in the presence of open flame or spark. Do not place in hot water or near radiators, stoves or other sources of heat. Vapour may travel a considerable distance to a source of ignition and flash-back.
Risks of Explosion	Risk of explosion of the product in presence of mechanical impact: Do not sub-ject aerosol cans to impact. Risk of explosion of the product in the presence of static discharge: Vapours of this product may form a flammable/explosive mixture with air in enclosed area when vapours present are between the lower (0.6%) and upper (19%) flammable limits and come into contact with open flames, sparks or static discharge. Do NOT expose aerosol containers to open flames, heat or ignition sources. Container may explode if heated.

SECTION 5 -REACTIVITY

Stability	The product is stable.
Hazardous Decompo-sition Products	These products are carbon monoxide, carbon dioxide, silicone dioxide, traces of formaldehyde and other irritating gases.
Degradability	Not available.
Products of Degradation	Not available.
Corrosivity	Not considered to be corrosive for metals and glass according to our database.
Reactivity	Avoid contact with strong oxidizing agents, strong acids and strong alkalies.
Instability Temperature	Not available.
Conditions of Instability	Heat, open flames, static discharge or any other source of ignition.

SECTION 6 –TOXICOLOGICAL PROPERTIES

Routes of Entry	Ingestion. Inhalation. Skin contact. Eye contact.
TLV	**Petroleum distillate** TWA: 300 (ppm) **Light Petroleum Naphtha** TWA: 100 (ppm) **Ethanol** TWA: 1000 (ppm) from ACGIH **Isopropanol** TWA: 400 CEIL: 500 (ppm) from ACGIH [1993] TWA: 980 CEIL: 1225 (mg/m^3) **Carbon dioxide** TWA: 5000 (ppm) Consult local authorities for acceptable exposure limits.
Toxicity to animals	**WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.** Acute oral toxicity (LD50): 3600 mg/kg [Mouse] (Isoproanol). Acute oral toxicity (LD50): 3450 mg/kg [Mouse] (Ethanol). Acute toxicity of the vapour (LC50): .>5000 ppm [Rat] (Isopropanol). Acute toxicity of the vapour (LC50): >5000 ppm [Rat] (Ethanol).
Chronic Effects on Humans	Prolonged or repeated skin contact may lead to dermatitis.
Acute Effects on Humans	EYE CONTACT: May cause mild to moderate irrritation, redness and tearing. SKIN CONTACT: May cause irritation, defatting, drying and cracking of skin. INHALATION: Vapours may be irritating to the nose, throat and respiratory tract. Excessive inhalation of vapours may cause Central Nervous System effects including dizziness, weakness, fatigue, nausea, headache and possible unconsciousness. INGESTION: May cause a burning sensation of the mouth and throat, abdominal pain and Central Nervous System effects (see inhalation). May also cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into the lungs may cause chemical pneumonitis, which can be fatal. Can be fatal if inhaled or ingested.
Synergetic Products (Toxicologically)	Not available.
Irritation/Corrosivity	See acute effects on humans.
Sensitization	Not available.
Carcinogenic Effects	Not available.
Toxic Effects on Reproduction	Not available.
Teratogenic Effects	Not available.
Mutagenic Effects	Not available.

SECTION 7 –PREVENTIVE MEASURES

Small Spill and Leak	Ventilate area and eliminate all sources of ignition. Keep away from heat. Absorb with an inert DRY material and place in an appropriate waste disposal Container. It is recommended that safety glasses and chemical resistant gloves be worn to clean up spills.
Personal Protective Equipment	Safety glasses and chemical resistant gloves are recommended.
Large Spill and Leak	Not applicable for aerosol containers.
Protective Clothing	Not applicable for aerosol containers.
Engineering Controls	Use under well-ventilated conditions.
Precautions	Contents under pressure. Container may explode if heated. Extremely flammable. Direct inhalation of spray may be harmful. Keep out of reach of children.

Storage	Store in a cool, dry place. Do not place in hot water or near radiators, stoves or other sources of heat. Do not puncture or incinerate container or store at temperatures over 50^{o}C or in direct sunlight.
Handling	Do not use in the presence of open flame or spark. Keep away from heat. Avoid breathing vapours or spray mists. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. After handling, always wash hands thoroughly with soap and water.
Waste Disposal	Recycle to process, if possible. Consult your local or regional authorities. Do not dispose in sewers. When container is empty, press button to release all pressure, then dispose of in garbage can.
Special Shipping Information	None.

SECTION 8 –FIRST AID

Eye Contact	Flush eyes with plenty or running water for at least 15 minutes, lifting upper and lower lids, occasionally. Contact physician.
Skin Contact	Wash with soap and water. If irritation persists, contact physician. Remove contaminated clothing and wash before reuse.
Hazardous Skin Contact	No additional information.
Slight Ingestion	If swallowed, call physician or poison control centre immediately. DO NOT induce vomiting. Aspiration of material into lungs due to vomiting may cause chemical pneumonitis which can be fatal.
Hazardous Ingestion	No additional information.

SECTION 9 –MSDS PREPARATION

References	Not available.
No additional remark.	
Validated by DEK Canada on Feb. 27/09	Verified by DEK Canada Inc. Printed Feb. 07/12
Emergency Phone: (905) 677-1948	
TDG Road/ Rail	CONSUMER COMMODITY Not applicable.
WHMIS	WHMIS CLASS A: Compressed gas. WHMIS CLASS B-5: Flammable aerosol. WHMIS CLASS D-2B: Material causing other toxic effects (TOXIC)

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