

# Krown KE-93 Brake Cleaner

## Material Safety Data Sheet

### Section 1: Chemical Product and Company Identification

**Manufacturer or Supplier Name:** Empack a division EMU Polishes Inc.

**Address:** 1062 Westport Crescent, Mississauga, On.

**Date of MSDS Preparation:** 01/01/2009 **Revision:** 0

**Product Use:** Cleaner.

**Chemical Family:** Petroleum distillates.

### Section 2: Composition/Information on Ingredients

Hazardous Ingredients	%	LD50 and LC50	ACGIH TWA	Ecotoxicity - Aquatic Toxicity
HEPTANE 142-82-5	60-100	Inhalation LC50 Rat: 103 gm/m <sup>3</sup> /4h	=400 ppm TWA =500 ppm STEL	LC 50 (24 hr) goldfish 4.0 mg/L.; LC50 (24 hr) mosquito fish: 4900 mg/l.; LC50 (96 hr) cichlid fish: 375 mg/l
CARBON DIOXIDE 124-38-9	1% - 5%	Not Available	=5000 ppm TWA =30,000 ppm STEL	Not Available
ISOPROPANOL 67-63-0	1% - 5%	Inhalation LC50 Rat: 16000 ppm/8hOral LD 50 Rat: 5045 mg/kg Dermal LD50 Rabbit: 12800 mg/kg	=200 ppm TWA =400 ppm STEL	LC50 (96hr) Fathead minnow (29 days old) 94900-10400 mg/l cond. Flow-through 24.4-24.6 C, ph 7.09, 52.5 mf/l CaCO <sub>3</sub> , LC50 (96hr) fathead minnow (31 days old) 61200-65500 mg/l Cond. Flow

### Section 3: Hazards Identification

**Ingestion:** Ingestion of small amounts during normal handling are not likely to cause injury. Larger amounts may cause effects similar to those described under inhalation. Ingestion of large amounts may cause stomach irritation. Symptoms include nausea, vomiting and diarrhea. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

**Skin Contact:** No hazard under normal conditions of use. Frequent or prolonged contact may dry and irritate the skin and cause a rash.

**Inhalation:** No hazard under normal conditions of use. High concentrations may cause respiratory irritation and central nervous system depression with results ranging from dizziness and headache to unconsciousness.

**Eye Contact:** Direct contact causes eye irritation.

**Chronic Effects:**

Reports have associated repeated and prolonged occupational overexposure to various organic solvents with internal organ, brain and nervous system damage.

### Section 4: First Aid Measures

**Ingestion:** Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

**Skin Contact:** Wash with soap and water. Remove contaminated clothing and launder before reuse. Seek medical attention if irritation persists.

**Inhalation:** Not a hazard under normal use conditions. If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

**Additional Information**

If symptoms such as convulsions or unconsciousness occur before vomiting, gastric lavage should be considered. Hemodialysis should be considered in severe acute intoxications.

## Section 5: Fire Fighting Measures

**Flash Point (°C):** -14 °C (Liquid Component)

**Flame Projection:** > 45 cm. Aerosol will flashback.

**NFPA Classification:** Aerosol, Level 3

**Lower Explosive Limit:** Not Available

**Upper Explosive Limit:** Not Available

**Autoignition Temperature (°C):** Not Available

**Sensitivity to Mechanical Impact:**

Contents under pressure. Protect against physical damage.

**Conditions of Flammability:**

Extremely flammable. Do not use on vehicles unless cool. Sprayed product will project a flame on contact with an ignition source. Contents under pressure. Containers may explode if heated. Vapours are heavier than air and may travel or be moved along the ground to an ignition source at locations distant from material handling.

**Sensitivity to Static Discharge:**

Take precautionary measures against static discharges.

**Hazardous Combustion:** Carbon dioxide, carbon monoxide and other unidentified organic compounds.

**Extinguishing Media:**

Alcohol foam or water fog for large fires. Carbon dioxide or dry chemical for small fires.

Use water spray to cool fire exposed containers and prevent bursting. Do not use a direct stream of water.

## Section 6: Accidental Release Measures

**Leak or Spill Procedures:**

Contain spilled material. Avoid contamination of natural waterways. Wear suitable protective clothing. Follow applicable explosion and fire precautions during the response. Stop the spill at the source when safe to do so. For large spills, dike the area to prevent spreading. Pump excess to a salvage container. Absorb residues and small spills with a non-flammable absorbent material and collect adsorbate for disposal. For large quantities refer to the environmental ministry.

## Section 7: Handling and Storage

**Handling Procedures:**

Flammable. Keep away from heat, spark, flame and other sources of ignition. Do not use on hot vehicles. Use with adequate ventilation. Avoid breathing vapours. Avoid skin and eye contact. Wear all appropriate personal protective equipment during use. Use good personal hygiene. Avoid smoking, eating and drinking during use. Wash with soap and water after handling. Containers of this material may contain hazardous residues when emptied.

**Storage Requirements:**

Store in a cool, dry, well-ventilated area. Storage temperatures should not exceed 40°C. Keep from freezing. Keep away from children.

## Section 8: Exposure Controls/Personal Protection

**Respiratory:** Not normally required. If the TLV is exceeded, a NIOSH-approved respirator is advised.

**Gloves:** Nitrile gloves. Neoprene.

**Eyewear:** Safety glasses. Contact lenses should not be worn. They may contribute to the severity of the injury.

**Clothing:** Sufficient clothing to prevent skin contact.

**Ventilation:** Sufficient mechanical ventilation to maintain exposures below the TLV. General mechanical ventilation is not recommended as the sole means of controlling exposure. Make-up air should always be supplied to balance air exhausted.

### **Other protective equipment**

Emergency showers and eyewash facilities should be nearby. The selection of personal protective equipment will vary depending on the conditions of use.

## Section 9: Physical and Chemical Properties

**Physical State:** Aerosol

**Odour:** Characteristic odour.

**Appearance:** Colourless.

**Evaporation Rate:** Not Available

**Vapour Pressure (mmHg):** Not available.

**Vapour Density (Air=1):** > 1

**VOC %:** 100

**Boiling Point:** Not Available

**pH:** Not available.

**Coefficient of water:** Not Available

**Solubility in Water:** Negligible

**Specific Gravity (H<sub>2</sub>O=1):** 0.74 at 15°C

**Viscosity:** Not available.

## Section 10: Stability and Reactivity

### **Conditions of Instability:**

Stable at ambient and moderately elevated temperatures and pressures.

### **Hazardous Polymerization:**

Hazardous polymerization will not occur.

### **Hazardous Decomposition:**

See hazardous combustion products.

### **Incompatible Materials:**

Avoid strong oxidizers such as HOOH, HNO<sub>3</sub>, and oleum. Light.

### **Conditions of Reactivity:**

Avoid excessive heat, sparks and open flame.

## Section 11: Toxicological Information

**Irritancy of Product:**

May be mildly irritating to eyes and skin.

**Sensitization to product:**

Contains no known skin or respiratory sensitizers.

**Carcinogenicity:**

No components are listed as carcinogens by ACGIH, IARC, OSHA, or NTP.

**Reproductive Effects:**

Not Available

**Teratogenicity:**

Not Available

**Mutagenicity:**

Not Available

**Synergistic Products:**

Not Available

**Other Information:**

Exposure limit: ACGIH STEL, (Heptane): 500ppm / 2050mg/m3. Exposure  
Limit, ACGIH STEL,  
(Isopropyl Alcohol): 500ppm / 1230mg/m3

## Section 12: Ecological Information

**Environmental:** Toxic to aquatic life. Aromatic hydrocarbons may be bioaccumulative but they have no food chain concentration potential. See composition/information on ingredients.

**Biodegradability:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:** Contents under pressure. Do not puncture, incinerate or expose to heat even when empty. Reuse or recycling should be given priority over disposal under any circumstances. Do not dump unused contents into sewers, on the ground or into any body of water. Dispose of in accordance with municipal, provincial and federal regulations.

## Section 14: Transportation Information

**Road shipment:** AEROSOLS, Class 2.1, UN1950, ERG #126.

**Marine shipment:** AEROSOLS, Class 2, UN1950, EmS# F-E, S-U.

Flash Point (°C): -14 °C (Liquid Component)

**Air Shipment:** Aerosols, Flammable, Class 2.1, UN 1950, PI Y203.

**Exemption:** LTD QTY exemptions may be used if product is packaged in accordance with Schedule 1 of TDGR (Clear Language)

## Section 15: Regulatory Information

**WHMIS:** A, B5, D2B

**CEPA:** All components are listed on the Domestic Substances List (DSL).

**CPR Compliance:** This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

## Section 16: Other Information

**HMIS Rating:** 241B

**Prepared By:** Empack

**Information Tel #:** 1-905-670-8697

**Information Fax #:** (905) 847-5404  
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