

KE93 Brake & Parts Cleaner

Material Safety Data Sheet

1. Chemical Product and Company Information

Product Name: Krown Brake & Parts Cleaner KE93

Product Item Numbers: # KR-093420 – 13.75 oz / 390 g

Product Manufacturer: Empack Spraytech Inc.
Address: 98 Walker Drive
Brampton, Ontario, Canada L6T 4H6

Telephone: (905) 792 – 6571

Emergency Telephone: Empack: (905) 792-6571 (8:00 am – 4:00 pm ET)
CANUTEC: (613) 996-6666 collect (24 Hours)

Product Use: Dissolves and removes grease, oil and dirt from brake parts and C.V. joints

WHMIS Classification: A, B5, D2B

TDG Classification: AEROSOLS, Class 2.1, UN1950
Under the Clear Language Regulations: refer to Section 1.17 for Limited Quantity Shipping Information, if shipping under this exemption.

Prepared By: Empack Regulatory Department

Preparation Date: June 2006

Last revision: February 23, 2012

2. Composition / Information on Ingredients

Hazardous Ingredients	CAS Number	Wt. %	ACGIH TLV (ppm)	OSHA TWA (ppm)	LD/50 (mg/kg)		LC/50 (mg/m ³) Inhal – Rat, 4 hr
					Oral (Rat, 4hr)	Dermal (Rabbit)	
Heptane	142-82-5	60-100	400	500	>15,000	>2,000	103,000

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3. Physical and Chemical Properties

Physical State	Volatile liquid, aerosol
Appearance	Mist
Odour	Hydrocarbon odour
Odour Threshold (ppm)	230 detected
Boiling Range (Liquid)	90 to 110 °C
Freezing Point (Liquid)	-135 to -90
Aerosol wt. % Volatile	95 - 100
Vapour Density (Air = 1)	> 1
Specific Gravity (Liquid)@ 20 °C	0.7
Specific Gravity (Aerosol)	0.7
Vapour Pressure(mm Hg)	45 @ 20°C
Evaporation Rate (n-Butyl Acetate=1)	4.3
pH	Not Applicable.
Solubility in Water	Negligible
Coefficient of Water/Oil Distribution	4.66

4. Fire and Explosion Hazard

Flammability:	Extremely Flammable. Closed containers are contained under pressure and may explode if exposed to excess heat for a prolonged period of time. Vapours are heavier than air and collect in low-lying areas. Vapours can travel to a source of ignition and flash back causing an explosion and fire.
Conditions of Flammability:	Ignition sources, excessive heat, open flame, sparks and electrostatic charge.
Flash Point (TCC deg. C) (CONCENTRATE):	> - 4
Aerosol Flame Projection Classified as:	> 100 cm
Flashback:	Yes
Extinguishing Media:	Carbon Dioxide, dry chemicals, foam, water fog.
Fire Fighting Procedures:	Wear NIOSH approved self-contained breathing apparatus or equivalent and full protective gear. Move containers from fire area if it can be done without risk. In case of large fire cool containers

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	with water jet in order to prevent pressure build up, autoignition or explosion. Shield personnel to protect from venting, rupturing or bursting cans.
Autoignition Temperature (deg. C):	246 -260
Flammability Limits in Air (% by volume):	LEL: 1.0 UEL: 8.0
Hazardous Combustion Products:	Oxides of carbon. Emits fumes and smoke.
Rate of Burning:	Not available.
Explosive Power:	Not available.
Sensitivity to Mechanical Impact:	Not expected to be sensitive to mechanical impact.
Sensitivity to Static Discharge:	Not available. Expected to be sensitive to static discharge when vapours in air are between the lower and upper explosive limits (i.e. 1.0 – 8.0 %).

5. Reactivity Data

Chemical Stability:	Stable under the recommended storage and handling conditions prescribed.
Incompatible Materials:	Strong oxidizing agents.
Conditions of Reactivity:	Avoid sources of heat and flame, and electrostatic charge. High temperatures may cause thermal decomposition
Hazardous Products of Decomposition:	Fumes and smoke. Refer to Hazardous Combustion Products, Section 4.
Hazardous Polymerisation:	Will not occur.

6. Toxicological Properties

Route of Entry:	
Skin Contact:	Yes
Skin Absorption:	No Data Available
Eye Contact:	Yes
Inhalation:	Yes
Ingestion:	Unlikely
Effects of Acute Exposure:	This product is harmful if inhaled or swallowed. Contact with skin and eyes may cause mild to moderate irritation and frostbite. Symptoms may include redness, pain, numbness, prickling and itching. Ingestion is not a likely route of exposure. If ingested, however, this product may be absorbed and result in CNS depression. Inhalation of vapours causes irritation to the nose, throat and respiratory tract, with coughing, wheezing, dizziness, headache, drowsiness, nausea and vomiting. Inhalation of higher concentrations may result in central nervous system depression and unconsciousness. High vapour concentrations reduce oxygen available for

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Effects of chronic exposure:	breathing, resulting in asphyxiation May cause skin defatting and dermatitis. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.
Carcinogenicity of material:	None of the ingredients are listed as possibly carcinogenic to humans by IARC or ACGIH.
Reproductive effects:	No information is available and no adverse reproductive effects are anticipated.
Teratogenicity:	No information is available and no adverse Teratogenic effects are anticipated.
Mutagenicity:	No information is available and no adverse Mutagenic effects are anticipated.
Sensitization:	Not known to be a sensitizer.
Synergistic products:	May increase the effects of exposure to other organic solvents.

7. Preventive Measures

Eye Protection:	Not required on a short-term basis. Use chemical safety goggles or full face shield when there is potential for eye contact.
Skin Protection:	Not normally required. Advice should be sought from glove suppliers. It is recommended that clothing made from natural fibres be selected in favour of synthetic fibres. Synthetic fibres are known to generate static.
Respiratory Protection:	Not required on a short term basis or if exhaust ventilation is provided. However, if exposure exceeds occupational limits, wear a NIOSH/MSHA-approved air-purifying respirator equipped with organic vapour cartridges for mists and vapours. Advice should be sought from respiratory protection specialists.
Engineering Controls:	Exhaust ventilation is recommended if used indoors on continuous basis. Local exhaust ventilation required, to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved.
Leak/Spill Clean-Up Procedures:	Restrict access to area until completion of clean-up. All persons dealing with clean-up should wear the appropriate protective equipment. Eliminate all sources of ignition. Provide adequate ventilation. Ventilate enclosed spaces. Do not use combustible materials such as sawdust as an absorbent. Use spark-resistant tools. Collect product for disposal. Notify applicable government authority if release is reportable or could adversely affect the environment.

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Containers Disposal:	Don't puncture or incinerate containers, even when empty. Dispose in accordance with local, provincial and federal regulations.
Handling Procedures and Equipment:	Avoid breathing vapours. Avoid contact with eyes, skin and clothing. Wear appropriate protective equipment. Use with adequate ventilation. Use non-sparking tools. Ground all equipment during handling. Avoid all sources of ignition, heat, flames and direct sunlight. Do not smoke while handling this product. Keep containers closed when not in use. Do not cut, puncture or incinerate containers. Keep work area clean.
Storage Instructions:	Store in a cool, dry, well ventilated place away from incompatibles and flammable materials.
Special Shipping Information:	This product is regulated by the Transportation of Dangerous Goods Act and Regulations (TDG). See Section 1 for a shipping description.

8. First Aid Measures

In case of eye contact, immediately flush eyes with lukewarm running water for a minimum of 15 minutes. Obtain medical attention. For skin, wash thoroughly with soap and lukewarm water. Obtain medical attention. If affected by inhalation of vapour or spray mist, move to fresh air. Obtain medical attention. If swallowed, do not induce vomiting. Obtain medical attention IMMEDIATELY.

9. Other Information

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. **This MSDS is valid for three years.**

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