
MATERIAL SAFETY DATA SHEET

1. PRODUCT AND PREPARATION INFORMATION

Manufacturer: EMPACK a division of EMU Polishes Inc.
98 Walker Drive, Brampton
Ontario, Canada, L6T 4H6
(905) 792 – 6571

Emergency telephone numbers: EMPACK (8 AM TO 4 PM EST)
(905) 792 – 6571
CANUTEC (24 HR)
(613) 996 – 6666

Supplier's Name and Address: Refer to Manufacturer

Product Name: KP-53 Krown Pentrant

Synonyms: Not Applicable

Chemical Family: Aerosol

Molecular Formula: Not Applicable

Product Use: Lubricant, Penetrant, Rust Inhibitor

WHIMIS Classification: Class 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.

2. HAZARDOUS INGREDIENTS

Hazardous Ingredients	CAS Number	Wt. %	OSHA TWA	ACGIH TWA	LC ₅₀ Inhalation
Petroleum Hydrocarbons	Not available	60 - 100	Not available	Not available	Not available
Propane	74-98-6	5-10	1000ppm	2500ppm	Not available
Isobutane	75-28-5	5-10	800ppm	Not available	570000 rat/1hr

3. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Aerosol
Appearance	Blue oil mist
Odour	Petroleum
Odour Threshold	N.Av
Boiling Point (°C) for concentrate	N.Av
Boiling Point (°C) for propellants	(- 12 °C) – (-42 °C)
Vapour Density (Air = 1)	>1
Specific Gravity (Water = 1)	0.8-0.86
Vapour Pressure for concentrate	N.Av.
Evaporation Rate for concentrate	N.Av
Vapour Pressure for propellants	33-109.73 psig@21.1 °C
PH	N.Av
Solubility in Water for concentrate	Nil

4. FIRE AND EXPLOSION HAZARD

Flammable limits for solution:

N.Av

Flammability for propellants:

flammability limits in air (% by volume):

LFL = 108-2.1 ; UFL = 8.5-9.5

Extinguishing Media:

Carbon dioxide, dry chemicals, water spray or fog.

Fire Fighting Procedures:

Emergency responders in the immediate hazard area should wear proper protective bunker gear and NIOSH approved self-contained breathing apparatus. Move containers from fire area if it can be done without risk. Use water spray to cool fire-exposed containers in order to prevent pressure build up, auto-ignition or explosion. Shield personnel to protect from

Flash Point	venting, rupturing or bursting cans. 150 °C (Liquid component)
Flash Point for propellants :	(-104) – (-178)
Auto-ignition Temperature (°C):	450-460 °C
Hazardous Combustion Products:	Carbon Oxides (CO, CO2).

5. REACTIVITY DATA

Chemical Stability:	Stable
Incompatible Materials:	keep away from strong oxidizers, ignition source and heat. Explosion hazard when exposed to chlorine dioxide. Heating barium peroxide with propane causes violent exothermic reaction. Heated chlorine-propane mixtures are explosive under some condition.
Hazardous Decomposition:	Extremely reactive or incompatible with oxidizing agents

6. TOXICOLOGICAL PROPERTIES

Route of Entry:	
Skin Contact:	Direct contact to the skin or mucous membranes with liquid or cold vapour may cause freeze burns and frost bite.
Eye Contact:	contact with liquid or cold vapour may cause frostbite, freeze burns, and permanent eye damage.
Inhalation:	Vapour maybe irritating to the mucous membranes and respiratory tract.
Ingestion:	ingestion is unlikely. Contact with mucous membranes with liquefied product may cause frostbite and freeze burns
Effects of Acute Exposure:	May increase sensitivity of the heart to adrenaline, which could result in irregular

Effects of Chronic Exposure:	heart beats and reduced heart function. At very high oral doses, this product caused reversible damage to the stomach, liver, and kidney (male only) of rats. These effects are not relevant to humans at occupational levels of exposure.
Carcinogenicity:	Petroleum derived oils may contain Polyaromatic Hydrocarbons (PAH) contaminants. Solvent refining and hydrotreating oil removes PAH's virtually eliminating the risk of cancer normally associated with PAH's and oils.
Reproductive Effects:	No information is available.
Teratogenicity:	No information is available.
Mutagenicity:	No information is available.

7. PREVENTIVE MEASURES

Personal protective equipment :	wear safety glasses and use impervious gloves.
Specific engineering controls:	local exhaust is recommended.
Leak and spill procedures:	remove or extinguish ignition or combustion sources, evacuate enclosed spaces until gas is dispersed, keep upwind. Stop leak if possible without risk .
Containers Disposal:	Don't puncture or incinerate containers, even when empty. Dispose in accordance with local, provincial and federal regulations.
Handling Procedures and Equipment:	wash before eating, drinking, using tobacco products or rest rooms. Do not breathe vapours. keep away from heat and flames.
Storage Instructions:	Keep away from heat, sparks, and open flames. Store in a cool, dry and well-ventilated place away from incompatibles.
Storage requirements:	keep in a closed, labelled container in a ventilated area.

8. FIRST AID MEASURES

Eyes: In case of eye contact, immediately flush eyes with running water for a minimum of 15 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Seek medical attention IMMEDIATELY.

Skin: For skin, wash thoroughly with soap and large amounts of water. If irritation or redness develops, seek medical attention.

Inhalation: If affected by inhalation of vapour or spray mist, move victims away from source of exposure and into fresh air. Seek medical attention if necessary.

Ingestion: Not expected. If happened Do not induce vomiting. Immediately drink one glass of water to dilute. Contact physician.

9. OTHER INFORMATION

Prepared by: EMPACK Regulatory Department
Telephone: (905) 792-6571
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Abbreviations:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service
LC	Lethal Concentration
LD	Lethal Dosage
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration (U.S.A)
TLV	Threshold Limit Value
TWA	Time Weighted Average
WHIMIS	Workplace Hazardous Materials Information System

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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