MATERIAL SAFETY DATA SHEET

1. PRODUCT AND PREPARATION INFORMATION

Manufacturer: EMPACK SPRAYTECH 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 Refer to Manufacturer

Supplier's Name and Address: Refer to Manufacturer Product Name: T32 Krown Lubricant

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	Wt. %	OSHA	ACGIH	LC ₅₀
	Number	VV L. 70	TWA	TWA	Inhalation
Petroleum	Not	60 100	Not	Not	Not available
Hydrocarbons	available	60 - 100	available	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	Red oil mist	
Odour	Petroleum	
Odour Threshold	N.Ap	
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	
РН	N.Ap	
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

Carbon dioxide, dry chemicals, water spray or fog. Extinguishing Media: 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 is order to prevent pressure build up, auto-ignition or explosion.

Shield personnel to protect from venting,

rupturing or bursting cans. 150 °C (Liquid component)

(-104) - (-178)

Auto-ignition Temperature (°C): 450-460 °C

Hazardous Combustion Products: Carbon Oxides (CO, CO2).

5. REACTIVITY DATA

Flash Point for propellants:

Flash Point

Chemical Stability: Incompatible Materials:	Stable 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: oxidizing agents	Extremely reactive or incompatible with
6. TOXICOLOGICAL PROPERTIES	S
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: Inhalation:	Contact with liquid or cold vapour may cause frostbite, freeze burns, and permanent eye damage. 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 heart beats and reduced heart function.
Effects of Chronic Exposure:	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:

Teratogenicity:

No information is available.

No information is available.

No information is available.

7. PREVENTIVE MEASURES

Personal protective equipment: Wear safety glasses and use impervious

gloves.

Specific engineering controls:

Leak and spill procedures:

Local exhaust is recommended.

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 Preparation Date: October 2006 Last revision: March 12, 2012

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.**

The information contained herein is based on data considered accurate. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Empack assumes no responsibility for personal injury or property damage to vendees or users or third parties, caused by the material. Such vendees or users assume all risks with the use of the material.