MATERIAL SAFETY DATA SHEET

Kel Kem Ltd.

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Emergency No.: Canutec (613) 996-6666 (Collect)

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Section 1: Product Information

Product Identifier: Powder Soot Remover

Product Code: KK0173, KK0174,

Product Class: Cleaner KK0175, KK0293, KK0317

Section 2: Hazardous Information

Ingredient	Percent (Wt. %)	CAS Number	Boiling Point (°C)	TLV (ppm)	TWA (mg/m³)	LEL (%)	UEL (%)
Sodium Chloride	85.0-95.0	7647-14-5	1465	3750	NA	NA	NA
				Oral LD50 Rat			
Copper Sulphate	1.0-5.0	7758-99-8	150	960	1.0	NA	NA
				Oral LD50 Rat			
Powdered Zinc	0.1–1.0	7440-66-6	907	NA	10	NA	NA
Limestone	1.0-5.0	1317-65-3	NA	NA	15	NA	NA

CAS - Chemical Abstracts Service LEL - Lower Explosion Limit TLV - Threshold Limit Value UEL - Upper Explosion Limit

TWA - Time Weighted Average

Section 3: Physical Data

Physical State: Powder or Crystals

Appearance and Odour: Grey Colour, Salty odour

Evaporation Rate: NA Specific Gravity: 2.2

Section 4: Fire and Explosion Data

Conditions of Flammability: Not Flammable

Flash Point and Method: None Auto-Ignition Temperature: NA Extinguishing Media: NA Explosion Data: N.AV.

Sensitivity to Mechanical Impact or Static Discharge: N.AV.

Extinguishing procedures: Water fog, CO2, dry chemical. Do not flush to sewer. Toxic to aquatic life.

Section 5: Reactivity Data

Stability: Stable

Conditions of Instability: Avoid excessive humidity. Mildly acidic when exposed to excessive humidity. Incompatibility: Reacts with concentrated acids such as sulfuric or nitric and strong alkalis and alkali

metals

Hazardous Combustion Products: Hydrochloric acid from above acids, hydrogen gas, zinc oxide fume

Section 6: Toxicological Properties

Routes of Entry: Inhalation, Ingestion, Skin and Eye Contact.

Effects of Acute Exposure to Product: May irritate eyes or skin.

Effects of Chronic Exposure to Product: Irritant. See below.

Exposure Guidelines: See Section 2: Hazardous Ingredients.

Irritancy of Product: *Inhalation:* irritating to nasal passage and respiratory tract. Excessive inhalation may cause nose bleeds and headaches. *Ingestion:* Irritant to the gastrointestinal system. Severe cases may result in nausea, thirst and vomiting. *Skin:* Mild dermatitis and photosensitization may result from excessive contact. *Eyes:*

Corrosive to the mucous membranes of the eyes. Moderate to severe irritation may occur.

Sensitization to Product: Photosensitization may result from excessive contact.

Reproductive Toxicity: None Known Terataogenicity: None Known Carcinogenicity: None Known Mutagenicity: None Known.

Names of Toxicologically Synergistic Materials: None Known.

Section 7: First Aid Measures

Inhalation: Provide fresh air. If discomfort of nasal or respiratory system persists, consult a physician.

Ingestion: DO NOT INDUCE VOMITING. If vomiting occurs keep head below hips to prevent aspiration of liquid into the lungs. Rinse mouth with water. Give 2 glasses of a mixture of milk of magnesia, milk or egg white in water. GET IMMEDIATE MEDICAL ATTENTION

Skin Contact: Remove contaminated clothing. Flush the skin with clean water for 15 minutes. Get medical attention.

Eye Contact: Hold eyelids open and flush the contaminated eyes with large quantities of clean water for at least 15 minutes. Use eye irrigation fountain if available. MEDICAL ATTENTION MUST be obtained.

Section 8: Preventive Measures

Personal Protective Equipment: Respiratory Protection: For levels above TLV/TWA use approved MSHA/NIOSH dust respirator or equivalent, sufficient ventilation should be provided to keep air contamination below permissible exposure limits. *Gloves:* Rubber gloves. Wash hands before eating or smoking. *Clothing:* In confined spaces or where the risk of skin exposure is much higher, impervious clothing should be worn. *Eye Protection:* Wear safety glasses with side shields or goggles. Facilities should be equipped with an eyewash station and safety shower.

Storage Requirements: Store in tightly closed containers in cool, dry area separate from incompatible materials. **Handling Procedures and Equipment:**

Spill Clean-up: Cover affected area with soda ash or baking soda. Sweep up for recycle or copper recovery. Do NOT flush to sewer. Toxic to aquatic life.

Waste Disposal: Place in closed containers. Dispose of product in accordance with Municipal, Provincial and Federal regulations.

Special Shipping Information: Not Regulated under TDG Canada except for Marine Transport. Contains up to

5% Copper Sulphate (Class 9, UN3077, Packing Group 3, Environmentally Hazardous Substances, Solid, N.O.S., Copper Sulphate, Marine Pollutant)

Engineering Controls: Local Ventilation recommended where mechanical ventilation is ineffective in controlling airborne concentrations below the recommended occupational exposure limit. Concentrations in air should be maintained below the recommended threshold limit value if unprotected personnel are involved. Make-up Air should always be supplied to balance air exhausted (either generally or locally).

Workplace Hazardous Materials Information System (WHMIS): D2A (materials causing other toxic effects, very toxic material)

Section 9: Additional Information

Notice to the Reader: The information is provided in good faith and is correct to the best of Kel Kem Ltd.'s knowledge as of the date hereof and is designed to assist our customers; however Kel Kem Ltd. makes no representation as to its completeness or accuracy. Final determination of suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

** Kel Kem Ltd. disclaims all expressed, implied warranties or representations.**

Definitions: NA - Not Available; NAp - Not Applicable

Section 10: Preparation Information

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