



7700 SETZLER PARKWAY
MINNEAPOLIS, MN
55445

TOLL-FREE PHONE: 1-800-328-7720

Emergency Phone: CHEMTREC 1-800-424-9300, INTERNATIONAL: (202)483-7616

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION.

Product Name: **KELCAUT**
Product Use: **EMBALMING CAUTERANT**
Chemical Family: **N/A**
Whmis Classification: **B3, D1A D2B**
TDG Hazard Class: **Flammable Liquid N.O.S.: 3 UN1993 PKG. III Limited Quantity**

SECTION II - HAZARDOUS INGREDIENTS

<u>Ingredients</u>	<u>Cas#</u>	<u>wt. %</u>	<u>LC50</u> (Rat.lhl)	<u>LD50</u> (Rat.oral)	<u>LD50</u> (rbt.skin)
Formaldehyde:	50-00-0	10	200mgm3/4h	100 mg/kg	270mg/kg
Methanol:	67-56-1	45	64000ppm/4h	13000 mg/kg	20000mg/kg

SECTION III - PHYSICAL DATA

Boiling Point:	64.4 C	Specific Gravity (H2O=1):	1.02
Vapour Pressure (mm hg):	43	Volatile %:	83
Vapour Density (air=1):	>1	Evaporation Rate (BuAe=1):	<1
Solubility in water:	100%	Ph:	7.0 - 7.5
Coeff. water/oil dist:	n/a	Freezing Point:	n/a
Appearance & odour:	clear, colourless, liquid with pungent irritating odour.		
Odour Threshold:	n/a		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability: **YES Combustible Liquid.**
Flash Point: **38.8 C**
Upper Explosion Limit: **73%**
Lower Explosion Limit: **6%**
Auto Ignition Temp: **n/a**
Hazardous Combustion Products: **n/a**
Explosion Data: **n/a**
Rate of Burning: **n/a**
Explosive Power: **n/a**
Sensitivity to Static Discharge: **n/a**
Means of Extinction: **Carbon dioxide, alcohol foam, dry chemical, water spray.**
Special Fire Fighting Procedures: **Wear self-contained breathing apparatus and complete personal protective equipment.**

SECTION V - REACTIVITY DATA

Stability: **stable**
Incompatibility: **Strong alkali and oxidizing agents. Reaction with hydrochloric acid may form bis-chloromethyl ether which is a suspected human carcinogen according to ACGIH and carcinogenic to humans according to IARC**
Hazardous Polymerization: **Will not occur**
Conditions to Avoid: **Keep away from heat, sparks and flames**
Hazardous Decomposition: **carbon dioxide, carbon monoxide, hydrogen and formaldehyde gas.**

SECTION VI - TOXICOLOGICAL PROPERTIES

*****OCCUPATIONAL EXPOSURE LIMITS*****

Exposure Limit: Formaldehyde: (TLV-C) 0.3 ppm ACGIH (TLV-STEL) 2.0 ppm OSHA
(TLV-TWA) .75 ppm OSHA
Methanol: (TLV-C) 250 ppm ACGIH, (TLV-TWA) 200 ppm ACGIH,

Inhalation: Irritation of upper respiratory tract. Bronchitis and broncho-pneumonia. Inflammation of eyelids. Methanol vapours can cause dizziness, fatigue, nausea and intestinal disturbance. Massive exposures can cause acute poisoning, visual impairment and death.

Eye Contact: Vapours can cause eye irritation; liquid can cause severe eye burns including permanent eye damage.

Skin: Hardening or tanning of skin irritation, cracking of skin and dermatitis can also occur. Prolonged or repeated skin contact can result in skin sensitization.

Ingestion: Severe abdominal pain, unconsciousness, collapse, temporary or permanent visual impairment, death.

****NOTE:** Formaldehyde is listed by (IARC) as probably carcinogenic to humans, on the basis of animal evidence, but human data is inadequate (group 2A). Listed by the National Toxicology Program as reasonably anticipated to be a carcinogen. Listed by the ACGIH as a suspected Human carcinogen. OSHA in its Formaldehyde standard considers formaldehyde a carcinogen.

SECTION VII - FIRST AID

Inhalation: Remove source of contamination or move victim to fresh air. If breathing has stopped give artificial respiration, obtain medical attention immediately.

Eye Contact: Flush eyes with lukewarm water for at least 20 minutes, holding the eyelids open. If irritation persists, obtain medical attention immediately.

Skin Contact: Avoid direct contact, remove contaminated clothing flush immediately with lukewarm water for at least 20 minutes. If irritation persists, obtain medical attention immediately.

Ingestion: Induce vomiting immediately, obtain medical attention immediately.

SECTION VIII - PREVENTIVE MEASURES

Spill and Leak Procedures: Avoid breathing vapour. Ventilate area. Eliminate ignition sources. Neutralize with diluted solutions of ammonia. Contain spill with inert absorbent material.

Waste Disposal: Dispose of in accordance with all applicable regulations

****Personal Protective Equipment****

Respiratory protection: Use NIOSH approved equipment.

Protective Gloves: PVC, nitrile or neoprene rubber should be worn to prevent prolonged or repeated skin contact.

Eye Protection: Chemical safety goggles should be worn to prevent eye contact.

Other Protective equipment: Eye wash fountain and safety shower must be available in areas where this material is used.

Ventilation: local exhaust ventilation to control airborne vapours.

****Storage and Handling****

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapours. Do not store below 35F or above 105F.

Storage: Store in a cool, dry ventilated area. Keep away from heat, sparks and flames. Wash thoroughly with soap and water after handling.

SECTION IX - ADDITIONAL INFORMATION

Abbreviations: TLV: Threshold Limit Values STEL: Short-term Exp. Limits TWA: Time-Weighted Average
ACGIH: American Conference of Governmental Industrial Hygienists 1993-94
OSHA: Occupational Safety and Health Administration
N/A: Not Available

SECTION X - PREPARATION INFORMATION

Prepared by: H.S. Eckels and Company (Canada) Ltd.
Telephone: 519-824-8020

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