

ZMM[®] Canada Minerals Corp.
MATERIAL SAFETY DATA SHEET:
ZMM[®] Z-1 Zeolite^{🇨🇦}

SECTION 1 – PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER: ZMM [®] Z-1 Zeolite	
PRODUCT USE: adsorbent, odor removal, desiccant, cation exchange, industrial catalyst	
WHMIS CLASSIFICATION: Not WHMIS controlled	
MANUFACTURER & SUPPLIER'S NAME:	ZMM [®] Canada Minerals Corp.
Address:	6459 Mack Road, Peachland, BC V0H 1X8
IN CASE OF EMERGENCY:	(778) 479-9091 or (250) 767-6788

SECTION 2 – HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	%	CAS #	LD ₅₀ OF INGREDIENT (SPECIFY SPECIES AND ROUTE)	LC ₅₀ OF INGREDIENTS (SPECIFY SPECIES)
Clinoptilolite/Heulandite	70% to 97%			
Silica, Crystalline Quartz	1% to 3%	14808-60-7		

SECTION 3 – PHYSICAL DATA

PHYSICAL STATE: Solid	ODOR & APPEARANCE: No odor, beige granules. 0.1 TO 5 mm IN DIAMETER			
VAPOUR PRESSURE: (mmHg) NAP	VAPOUR DENSITY: (Air=) NAP	EVAPORATION RATE: NAP	BOILING POINT (°C): NAP	FREEZING POINT (°C): NAP
	SPECIFIC GRAVITY: 2.0-2.2	COEFF. WATER/OIL DIST. NAP		SOLUBILITY: Insoluble

SECTION 4 – FIRE AND EXPLOSION DATA

FLAMMABILITY: not combustible or flammable IF YES UNDER WHAT CONDITIONS?		
MEANS OF EXTINCTION:	Use extinguishing media compatible with surrounding material (ie. water, water fog, dry chem, foam or carbon dioxide)	
SPECIAL PROCEDURES:	Fire fighters should wear SCBA in all industrial fire fighting situations.	
FLASHPOINT (°C) AND METHOD: NAP	UPPER FLAMMABLE LIMIT (% BY VOLUME): NAP	LOWER FLAMMABLE LIMIT (% BY VOLUME): NAP
AUTOIGNITION TEMPERATURE (°C): NAV	HAZARDOUS COMBUSTION PRODUCTS: Volcanic ash, not combustible	
EXPLOSION DATA: SENSITIVITY TO IMPACT: No SENSITIVITY TO STATIC DISCHARGE: NAP		

SECTION 5 – REACTIVITY DATA

CHEMICAL STABILITY: Stable	
INCOMPATIBILITY: NAV	CORROSIVE BEHAVIOUR: NAV
REACTIVITY AND UNDER WHAT CONDITIONS: Stable	
HAZARDOUS DECOMPOSITION PRODUCTS: NAV	

SECTION 6 – TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY: SKIN CONTACT: No SKIN ABSORPTION: No EYE CONTACT: Yes INHALATION: Yes
INGESTION: No

EFFECTS OF ACUTE EXPOSURE TO PRODUCT: May irritate eyes, nose and throat.

EFFECTS OF CHRONIC EXPOSURE: None known

EXPOSURE LIMITS: Particulate not otherwise classified, total dust exposure limit 10 mg/m³ (British Columbia Workers' Compensation Board) Particulate not otherwise classified, respirable dust exposure limit 3 mg/m³ (BC WCB)

SYNERGISTIC PRODUCTS: None Known	IRRITANCY: NAV	SENSITIZATION: NAV	CARCINOGENICITY: IARC AND ACGIH – Not Listed
TERATOGENICITY: NAV	REPRODUCTIVE HAZARD: NAV	MUTAGENICITY: NAV	

SECTION 7 – PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

Glove and Eye Protection: Not required to handle the granular product. If product is dusty, wear eye and hand protection.

Footwear: No specialized footwear needed.

Protective Clothing: Normal workplace coveralls

Respirators: If handling methods generate dust, wear a cartridge respirator equipped with a nuisance dust respirator (eg. 3M 710) or dual cartridge respirator with High Efficiency Particulate Air cartridges (N100 or better)

Other Protective Equipment: None required.

ENGINEERING CONTROLS: General ventilation is adequate.

LEAK AND SPILL PROCEDURE: Normally not required.

WASTE DISPOSAL: Ensure that disposal follows government requirements and ensure conformity to local disposal regulations. Disposal of this material will depend on the use of the material as an adsorbent and the material adsorbed on zeolite.

HANDLING PROCEDURES AND EQUIPMENT: Avoid breathing dust. In dusty conditions wear nuisance dust respirator or dual cartridge respirator fitted with High Efficiency Particulate Air cartridges.

STORAGE REQUIREMENTS: Store in a dry location with good general ventilation.

SPECIAL SHIPPING INFORMATION: NAP

SECTION 8 – FIRST AID MEASURES

INHALATION: Remove to fresh air. If symptoms persist, consult physician.

EYE CONTACT: Flush eyes with large amounts of water for 15 minutes or until irritation subsides. If irritation persists, get medical attention.

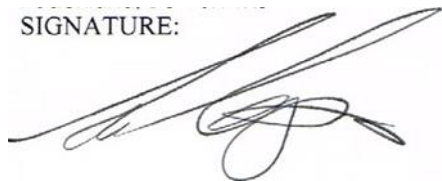
SKIN CONTACT: Wash skin with soap and water.

INGESTION: NAP

SECTION 9 – PREPARATION DATE OF MSDS

PREPARED BY:
LuVerne E.W. Hogg, President and CEO
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SIGNATURE:



DATE: December 20, 2017

BUSINESS PHONE: (778) 479-9091

ADDITIONAL INFORMATION:

NAP: Not applicable
NAV: Not available