

Section 1. Identification

**Product Name: ROCKET SEEDS® PMZ LIQUID
2-16-0**

Recommended use: Plant Food

Restrictions on use: Use only as directed

Manufacturer Name: Compass Minerals USA Inc. Compass Minerals Manitoba Inc.

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+1 703-527-3887 (collect calls accepted)

Section 2. Hazard(s) Identification

Classification:

Physical	Health
Not Classified	Eye Damage Category 1 Skin Irritation Category 2 Specific Target Organ Toxicity Repeated Exposure Category 2

Danger!



Hazard statement(s)

H315 Causes skin irritation.
H318 Causes serious eye damage.
H373 May cause damage to brain through prolonged or repeated exposure by inhalation.

Precautionary statement(s)

P260 Do not breathe mists.
P264 Wash thoroughly after handling.
P280 Wear protective gloves and eye protection.
P314 Get medical attention if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water.
P332+P313 If skin irritation occurs: Get medical attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water

for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor.

Section 3. Composition / Information on Ingredients

Chemical name	CAS No.	Concentration
Zinc Oxide	1314-13-2	<15%
Manganese Sulfate Monohydrate	10034-96-5	<10%
Zinc Sulfate	7446-19-7	<5%
Emulsifier	Proprietary	<5%

Section 4. First-Aid Measures

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. Get medical attention if irritation persists.

Skin contact: Remove contaminated clothing and shoes. Flush skin thoroughly with water for several minutes. Get medical attention if irritation occurs. Launder clothing before re-use.

Eye contact: Immediately flush eyes thoroughly with large quantities of water for 20 minutes, while holding the eye lids open to be sure the material is washed out. Remove contact lenses if present and easy to do. Get immediate medical attention.

Ingestion: Rinse out mouth with water. If irritation or discomfort occurs, get medical attention.

Most important symptoms/effects, acute and delayed: Causes severe eye irritation or burns. Permanent eye damage may occur. May cause moderate skin irritation. Inhalation of mists may cause respiratory irritation. Prolonged overexposure by inhalation may cause brain damage.

Indication of immediate medical attention and special treatment, if necessary: If eye contact occurs, get immediate medical attention.

Section 5. Fire-Fighting Measures

Suitable (and unsuitable) extinguishing media: Use media appropriate for the surrounding environment.

Specific hazards arising from the chemical: This product is not combustible or flammable. Combustion may produce oxides of carbon, zinc, sulfur, and manganese compounds.

Special protective equipment and precautions for fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water. Contain water used in firefighting from entering sewers or natural waterways.

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Avoid contact with eyes, skin, and clothing. Wear appropriate protective clothing as described in Section 8. Avoid breathing mists. Ventilate area.

Environmental precautions: Avoid release to the environment. Report spills and releases as required to appropriate authorities.

Methods and materials for containment and cleaning up: Cover with an inert absorbent material and collect into an appropriate container for disposal. Wipe spill area.

Section 7. Handling and Storage

Precautions for safe handling: Avoid breathing mists. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Always wear impervious gloves, chemical safety goggles and protective clothing when handling this material. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, flames and all other sources of ignition. Keep containers closed when not in use.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated location away from incompatible materials. Keep containers closed when not in use. Protect from physical damage.

Section 8. Exposure Controls / Personal Protection

Exposure guidelines:

Zinc Oxide	2 mg/m ³ TWA, 10 mg/m ³ STEL ACGIH TLV (Respirable) 5 mg/m ³ (respirable fraction), 15 mg/m ³ (total dust) TWA OSHA PEL
Manganese Sulfate Monohydrate (as Mn inorganic compounds)	0.02 mg/m ³ TWA (respirable), 0.1 mg/m ³ TWA (inhalable) ACGIH TLV 5 mg/m ³ Ceiling OSHA PEL
Zinc Sulfate	None Established
Emulsifier	None Established

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Personal Protective Equipment:

Respiratory protection: In operations where the occupational exposure limits are exceeded, an approved respirator with dust/mist cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Skin protection: Suitable gloves are recommended as needed to avoid skin contact.

Eye protection: Chemical safety goggles are recommended if contact is possible.

Other: Eye wash should be available if contact may occur. Wear protective clothing as needed to prevent contact and contamination of personal clothing.

Section 9. Physical and Chemical Properties

Appearance: White to cream liquid

Odor: Characteristic odor.

Odor threshold: Not available	pH: 4.5-5.0
Melting point/freezing point: 0°C (32°F) (approx.)	Boiling Point: Not available
Flash point: Not applicable	Evaporation rate: Not available
Flammability (solid, gas): Not applicable	

Flammable limits: LEL: Not flammable	UEL: Not flammable
Vapor pressure: Not available	Vapor density: Not available
Relative density: 1.46 g/mL	Solubility(ies): Not available
Partition coefficient: n-octanol/water: Not available	Auto-ignition temperature: Not available
Decomposition temperature: Not available	Viscosity: 50 rpm: 900 cP (±100) 25 rpm: 1100 cP (±400) 2.5 rpm: 7200 cP (±2000)

Section 10. Stability and Reactivity

Reactivity: Not reactive under normal conditions of use.

Chemical stability: Stable under normal storage and handling conditions.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Keep away from heat, flames, and other sources of ignition.

Incompatible materials: Strong oxidizing agents and acids.

Hazardous decomposition products: Thermal decomposition may release oxides of carbon, zinc, sulfur, and manganese compounds.

Section 11. Toxicological Information

Acute effects of exposure:

Inhalation: Inhalation of mists may cause upper respiratory irritation with sneezing and coughing.

Ingestion: Swallowing large amounts may cause gastrointestinal irritation, nausea and diarrhea.

Skin contact: Direct contact may cause moderate skin irritation.

Eye contact: Contact may cause severe irritation, redness and tearing. May cause permanent eye damage.

Chronic effects: Prolonged overexposure to manganese have been shown to cause permanent neurological damage in humans.

Germ Cell Mutagenicity: None of the components have been shown to cause germ cell mutagenicity.

Reproductive Toxicity: None of the components have been shown to cause reproductive or developmental toxicity.

Carcinogenicity: None of the components of this product are listed as carcinogens or suspected carcinogens by IARC, NTP, OSHA or ACGIH.

Acute toxicity values: Product Acute Toxicity Value:

Zinc Oxide: Oral rat LD50: >5000 mg/kg, Inhalation rat LC50: >5700 mg/m³/4hr (no mortality), Skin rat LD50: >2000 mg/kg

Manganese Sulfate Monohydrate: Oral rat LD50: 2150 mg/kg, inhalation rat LC50: > 4.45 mg/L/4 hr (no mortality)

Zinc Sulfate: Oral rat LD50 1710 mg/L, Dermal rat LD50 >2000 mg/kg

Emulsifier: No toxicity data available

Section 12. Ecological Information

Ecotoxicity Data:

Zinc Oxide: 96 hr LC50 Oncorhynchus kisutch 727 ug/L, 48 hr EC50 daphnia magna 860 ug/L, 72 hr NOEC Pseudokirchneriella subcapitata 5.4 ug/L
 Manganese Sulfate Monohydrate: 96 hr LC50 Oncorhynchus mykiss 3.17 mg,
 Zinc Sulfate: 96 hr LC50 Oncorhynchus kisutch 727 ug/L, 48 hr EC50 daphnia magna 860 ug/L, 72 hr NOEC Pseudokirchneriella subcapitata 5.4 ug/L

This product is classified as toxic to aquatic life with long lasting effects. Releases to the environment should be avoided.

Persistence and degradability: Biodegradation is not applicable to inorganic compounds.

Bioaccumulative potential: Not data available.

Mobility in soil: No data available.

Other adverse effects: None known.

Section 13. Disposal Considerations

Dispose in accordance with all local, state and federal regulations.

Section 14. Transport Information

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
US DOT		Not Regulated			
Canadian TDG		Not Regulated			
EU ADR/RID	UN3077	Environmentally hazardous substance, solid, n.o.s (Zinc Oxide, zinc sulfate)	9	PG III	Yes
IMDG	UN3077	Environmentally hazardous substance, solid, n.o.s (Zinc Oxide, zinc sulfate)	9	PG III	Yes
IATA/ICAO	UN3077	Environmentally hazardous substance, solid, n.o.s (Zinc Oxide, zinc sulfate)	9	PG III	Yes

*This product is classified as a Marine Pollutant (Environmentally Hazardous Substance) in accordance with the IMDG Code and the UN Model Regulations. However, if it is packaged in either single packages or inner packagings in combination packages containing net quantities of less than 5 kg/5 L, the Marine Pollutant does not apply (IMDG Code 2.10.2.7).

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable

Special precautions: None known

Section 15. Regulatory Information

CERCLA Hazardous Substances (Section 103)/RQ: This product is not subject to CERCLA reporting requirements as it is sold. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Refer to Section 2 for OSHA Hazard Classification

SARA 313 Information: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Zinc Oxide	1314-13-2	<15%
Manganese Sulfate Monohydrate	10034-96-5	<10%
Zinc Sulfate	7446-19-7	<5%

California Proposition 65

This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects): None

US EPA TSCA Inventory: All of the ingredients in this product are listed on the EPA TSCA Inventory.

Section 16. Other Information

SDS Revision History: New SDS

Date of preparation: October 17, 2018

Date of last revision: N/A