



# Safety Data Sheet

## Phosgard® ZMN

### SECTION 1: Product and Company Identification

Product name: Phosgard® ZMN  
Product code: 22020 / 058068  
Product use: Plant fertilizer  
Product type: Liquid  
Manufacturer: JH Biotech, Inc.  
4951 Olivas Park Drive, Ventura, CA 93003  
Tel: (805) 650-8933 Fax: (805) 650-8942  
[info@jhbiotech.com](mailto:info@jhbiotech.com)  
24-Hour Emergency tel: (800) 633-8253 (United States & Canada) (801) 629-0667 (International)

### SECTION 2: Hazards Identification

Signal word: Warning  
Label element:



Hazard statement: Harmful if swallowed. May cause eye or skin irritation.  
Precautionary statement: Wash hands thoroughly after handling. Avoid contact with eyes or skin.  
First Aid: If swallowed: Seek medical attention. Rinse mouth. If on eyes or skin: Remove contact lenses for eyes. Wash thoroughly with water for several minutes. Get medical attention if necessary.  
Storage & Disposal: Store in a safe manner. Dispose product/container in accordance with federal, state, and local regulations.  
HMIS Rating: Health = 1 Flammability = 0 Reactivity = 0

### SECTION 3: Composition/Information on Ingredients

Component	CAS No.	%
Phosphorous acid	10294-56-1	n/a
Manganese carbonate	598-62-9	n/a
Potassium hydroxide	1310-58-3	n/a
Zinc sulfate	7733-02-0	n/a

The specific identity and/or exact percentage of composition is not provided because it is a trade secret.

### SECTION 4: First Aid Measures

Inhalation: Remove from source of exposure. Get medical attention if necessary.  
Skin contact: Wash thoroughly with water. Get medical attention if necessary.  
Eye contact: Wash eyes with plenty of water for at least 15 minutes. Be sure to remove contact lenses. Get medical attention if necessary.  
Ingestion: Wash out mouth with plenty of water. Do not induce vomiting. Get medical attention if necessary.

### SECTION 5: Firefighting Measures

#### Suitable extinguishing media

Water spray, dry chemical, carbon dioxide, foam

#### Special hazards arising from the substance or mixture

None

#### Protection for firefighters

Wear protective clothing and equipment

### SECTION 6: Accidental Release Measures

#### Personal precautions, protective equipment and emergency procedures

Wear protective clothing, gloves, and safety eye goggles.

#### Environmental precautions

Avoid discharge into environment

#### Methods and material for containment and cleaning up

Contain all spills and leaks to prevent discharge into the environment. Use appropriate tools to transfer spill material to proper disposal container. Or recover material and use it for its intended purpose.



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### SECTION 7: Handling and Storage

#### Precautions for safe handling

Avoid overheating or freezing

#### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from direct sunlight. Keep containers tightly closed when not in use.

### SECTION 8: Exposure Controls/Personal Protection

#### Exposure controls

Product has no occupational exposure limits. Avoid inhaling dusts or vapors. Practice good industrial hygiene and safety.

#### Personal protection

Eye protection: Eye protection is not required. To avoid contact with eyes, use safety eye goggles.  
Skin protection: Wear protective clothing as necessary to minimize contact. Use chemical resistant gloves.  
Respiratory protection: Not required. Wear approved respiratory equipment if necessary.

### SECTION 9: Physical and Chemical Properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	Clear, colorless solution	<b>Vapor pressure</b>	Not applicable
<b>Odor</b>	Slight odor	<b>Vapor density</b>	Not applicable
<b>pH</b>	6 – 8	<b>Relative density</b>	1.3 g/ml
<b>Physical state</b>	Liquid	<b>Solubility</b>	Soluble in water
<b>Melting point / Freezing point</b>	>0°C / 32°F	<b>Partition coefficient</b>	Not applicable
<b>Boiling point</b>	>100°C / 212°F	<b>Auto-ignition temperature</b>	Not applicable
<b>Flash point</b>	Not applicable	<b>Decomposition temperature</b>	Not applicable
<b>Evaporation rate</b>	Not applicable	<b>Viscosity</b>	Not viscous
<b>Flammability</b>	Non-flammable	<b>Explosive properties</b>	Non-explosive
<b>Explosive limits</b>	Not applicable	<b>Oxidizing properties</b>	Non-oxidizer

### SECTION 10: Stability and Reactivity

#### Reactivity

None

#### Chemical stability

Product is stable.

#### Possibility of hazardous reactions

Under normal conditions, hazardous reaction will not occur.

#### Conditions to avoid

Avoid heat

#### Incompatible materials

Strong oxidizers, calcium fertilizer, water reactive materials and products containing copper.

#### Hazardous decomposition products

Phosphorous oxides, phosphine.

### SECTION 11: Toxicological Information

#### Information on toxicological effects

Acute toxicity: Harmful if swallowed  
Irritation: May cause eye or skin irritation  
Corrosivity: Not known to be corrosive  
Sensitization: Not known to cause sensitization  
Dose toxicity: Not known to be toxic  
Carcinogenicity: Not known to be carcinogenic  
Mutagenicity: Not known to be mutagenic  
Reproductive toxicity: Not known to cause reproductive harm



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### SECTION 12: Ecological Information

**Ecotoxicity**

Not considered hazardous.

**Persistence and degradability**

Not available

**Bioaccumulative potential**

Not available

**Mobility in soil**

Soluble in water and may disperse in soil.

### SECTION 13: Disposal Considerations

**Waste treatment methods**

Dispose of product in accordance with federal, state, and local regulations. Consult with qualified representative for proper disposal or treatment.

### SECTION 14: Transport Information

**DOT**

Not regulated by U.S. DOT as hazardous material.

UN number: Not applicable

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for user: Not applicable

**IATA**

Not dangerous goods

**IMDG**

Not dangerous goods

### SECTION 15: Regulatory Information

**CERCLA**

This product contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Potassium hydroxide (CAS # 1310-58-3)

Zinc sulfate (CAS # 7446-19-7)

**California Prop 65**

This product does not contain any chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**SARA 311/312 Hazards**

Acute Health Hazard: No

Chronic Health Hazard: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactive Hazard: No

**SARA 313**

Manganese carbonate (CAS # 598-62-9) is subject to reporting levels established by SARA Title III, Section 313.

Zinc sulfate (CAS # 7446-19-7) is subject to reporting levels established by SARA Title III, Section 313.

**Subject to "Right-To-Know" legislation in the following states**

This product contains one or more substances subject to Right To Know.

Massachusetts:

Potassium hydroxide (CAS # 1310-58-3)

Zinc sulfate (CAS # 7446-19-7)



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## Phosgard<sup>®</sup> ZMN

New Jersey:

Manganese carbonate (CAS # 598-62-9)

Potassium hydroxide (CAS # 1310-58-3)

Zinc sulfate (CAS # 7446-19-7)

Pennsylvania:

Manganese carbonate (CAS # 598-62-9)

Potassium hydroxide (CAS # 1310-58-3)

Zinc sulfate (CAS # 7446-19-7)

<b>SECTION 16: Other Information</b>
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