



Safety Data Sheet

Phosgard[®] MZN

SECTION 1: Product and Company Identification

Product name: Phosgard[®] MZN
Product code: 22040 / 058066 / 058006
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
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
Zinc carbonate	3486-35-9	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

Appearance	Clear, colorless solution	Vapor pressure	Not applicable
Odor	Slight odor	Vapor density	Not applicable
pH	2 – 4	Relative density	1.3 g/ml
Physical state	Liquid	Solubility	Soluble in water
Melting point / Freezing point	>0°C / 32°F	Partition coefficient	Not applicable
Boiling point	>100°C / 212°F	Auto-ignition temperature	Not applicable
Flash point	Not applicable	Decomposition temperature	Not applicable
Evaporation rate	Not applicable	Viscosity	Not viscous
Flammability	Non-flammable	Explosive properties	Non-explosive
Explosive limits	Not applicable	Oxidizing properties	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 does not contain any substance regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

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 carbonate (CAS # 3486-35-9) 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:

Zinc carbonate (CAS # 3486-35-9)

New Jersey:

Manganese carbonate (CAS # 598-62-9)

Zinc carbonate (CAS # 3486-35-9)

Pennsylvania:

Manganese carbonate (CAS # 598-62-9)

Zinc carbonate (CAS # 3486-35-9)



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Rhode Island:
Manganese carbonate (CAS # 598-62-9)

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.

SECTION 16: Other Information

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