

MATERIAL SAFETY DATA SHEET



SECTION I PRODUCT IDENTIFICATION

PRODUCT NAME: ChitoRem® Chitin Complex
PRODUCT USE: Bioremediation
SUPPLIER: JRW Bioremediation, LLC
 14321 W. 96th Terrace
 Lenexa, KS 66215
 913-438-5544
EMERGENCY TELEPHONE: 800-779-5545 x 116 (Mon-Fri 9am-5pm CST)
 913-961-6644 (afterhours)
DATE REVISED: 06-27-2011
FORMULA: C₈-H₁₃NO₅

SECTION II COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS #	% by Weight
Chitin	98632-70-3	10% - 30%
Protein	Not applicable	20% - 60%
Calcium carbonate	471-34-1	10% - 20%
Water/Moisture	7732-18-5	10% - 20%

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling point: NA
Vapor pressure (Mg Hg): NA
Vapor density (air = 1): NA
Solubility in water: Insoluble in water, alcohols, and most acids
Appearance and odor: Mixed light brownish color of granular and flaked particles, with crab odor
Density +/- 25lbs/CF
Specific gravity (H₂O = 1): 21 lbs/ ft³
Melting point: Not determined
Evaporation rate: Not determined
pH: Not determined
Molecular Weight: Not determined
Physical State: Solid

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Closed cup Flash point: Not determined
Open cup Flash point: Not determined
Auto Ignition: Not determined
Fire Point: Not determined
Flammability: Keep away from oxidizing agents and avoid open flames. Product may ignite at temperatures in excess of 400°F
LEL: Not determined
UEL: Not determined

Extinguishing media: Water, carbon dioxide, dry chemical, sand, or foam.
 Special Fire Fighting procedures: Treat as Class A
 Unusual Fire Fighting hazards: Depending on moisture content, and particle size, airborne dust of chitin might explode in the presence of an ignition source. It is comparable to flour and wood dust. Dust explosion limits unknown.

SECTION V REACTIVITY DATA

Stability: Unstable Stable
 Conditions to avoid: None Known
 Incompatibility (materials to avoid): Not Applicable
 Hazardous decomposition or byproducts: None Known
 Hazardous polymerization: May Occur Will Not Occur

SECTION VI HEALTH HAZARD DATA Based on concentration as sold

Route/s of Entry:

Inhalation: May accumulate on linings of the nose and lungs resulting in dryness and coughing. Move to fresh air. Get medical attention if persistent irritation or breathing difficulties occur.
 Skin contact: The powder can cause irritation or rash. Seek medical help if persists.
 Eye contact: May cause mechanical irritation. Treat as a foreign object and immediately flush eyes with water for at least 15 minutes, lifting eyelids to facilitate irrigation. Get medical attention if necessary.
 Ingestion: Not likely to be hazardous by ingestion.
 Health hazards (acute and chronic): No known effect from chronic exposure to this product.
 Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA
 Signs and symptoms of exposure: Temporary skin irritation may result from prolonged exposure but no known effect from chronic exposure to this product.
 Medical conditions aggravated by exposure: May aggravate preexisting respiratory conditions or allergies.

SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled: Material may be vacuumed or collected and placed in container for recovery or disposal. Material is biodegradable. Land disposal is acceptable, according to all local, state, and federal regulations at an approved waste treatment facility.
 Precautions to be taken in handling and storage: Keep in properly labeled containers. Store in a cool, dry area away from open flames and strong oxidizers.

SECTION VIII CONTROL MEASURES

Respiratory protection (specify type): A NIOSH/MSHA-approved respirator is recommended when the dust is airborne.
 Ventilation: Use adequate mechanical ventilation, especially in confined spaces. Local exhaust is recommended.
 Protective gloves: Not required but recommended to minimize potential mechanical irritation from handling.

Eye protection:	Safety glasses recommended when there is a high level of airborne dust.
Other protective clothing or equipment:	Unnecessary if other control measures are used.
Hygiene practices:	Follow good hygienic and housekeeping practices. Clean up areas where Chitin dust settles to avoid excessive accumulation of this combustible material. Minimize blow down, sweeping, and other practices that generate high airborne dust concentrations. Wash to remove dust after use. When using, do not eat, drink, or smoke.

SECTION IX**DOT INFORMATION**

DOT hazard class:	Not Applicable
Labeling:	Not Applicable
Proper Shipping Name:	ChitoRem [®] Chitin Complex
NMFC#:	175420
Class	50