

MATERIAL SAFETY DATA SHEET

ODC™ Colloidal Chitosan

Emergency First Aid Procedures are found in the last entry of Section Six.

Section One: Name of the Product and of the Distributor

Product Name:

ODC™ Colloidal Chitosan

Manufactured and Distributed By:

AgriHouse, Inc.
307 Welch Ave
Berthoud, Colorado 80513
Tel: (970) 532-3554
Fax (970) 532-9800
www.Agrihouse.com

Synonyms: None

CAS Registration: 9012-76-4

EPA Chemical Code: 128930

EPA Establishment no. 83729-CO-001

Section Two: Hazardous Ingredients/Identity Information (Maximum concentrations possible)

Compound Name	CAS	%	NIOSH/ RTECS#	OSHA PEL	ACGIH TLV	NIOSH REL	German MAK
Inerts	7732-18-5	99.75	ZC0110000	None	None	None	None
Chitosan (Active Agent)	9012-76-4	0.25	Unknown (FM6125000)	None	None	None	None

Section Three: Physical and Chemical Characteristics

Boiling point (°F):	212 (at NTP) estimated from components
Specific Gravity	1.07 g/ml (estimated from components)
Melting point:	Liquid at room temperature
Vapor density:	1.8 (air equals 1) estimated from components
Vapor pressure:	Approx. 21 mm Hg (estimated from components)
Molecular weight:	Mixture
Solubility (%v/v):	100%
Photoreactive VOCs:	Not determined
pH	Between 5-7
Evaporation Rate (Water=1)	1
% Volatility:	<1 %
Odor Threshold:	Not determined
Taste:	Hard water taste
Odor:	Slight odor
Appearance:	Light yellow-brown liquid

This product is derived from natural aquatic materials by hydrolytic process.

This product is a natural biopesticide **EPA reg. no. 83729-1**, strict attention must be paid to the conditions which have been noted regarding usage.

Section Four: Fire and Explosion Hazard Data

Flash Point	Autoignition Temperature	L.E.L.	U.E.L.
None	None	None	None

Extinguishing Media and Special Fire Fighting Procedures: This product will extinguish a flame.

General Fire/Explosion Discussion: This is a non-flammable product.

Section Five: Reactivity Data and Storage Information

Stability: Spontaneous polymerization is not expected to occur.

Hazardous Decomposition Products: None expected.

Incompatibility: None expected.

Handling: None expected.

Storage: Store in the manufacturers sealed container in a cool, well-ventilated area away from incompatible materials.

Section Six: Health Hazard Data

KEEP OUT OF REACH OF CHILDREN

General Discussion The material is not a significant health hazard when used according to our instructions. Small quantities entering the eyes, may be slightly irritating; small quantities entering the mouth or being swallowed are not considered to be significant. The material may dry the skin if chronic (daily exposures) are encountered.

EMERGENCY FIRST AID PROCEDURES

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 – 20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

Cancer Hazard:

Compound Name	EPA	NTP	IARC	NIOSH	DFG MAK	Calif.	OSHA	ACGIH
Inerts	NL	NL	NL	NL	NL	NL	NL	NL
Chitosan	NL	NL	NL	NL	NL	NL	NL	NL

NL=No Listing available.

None of the ingredients are known to be on the following state right to know lists: California, Florida, Pennsylvania, Minnesota, and Massachusetts.

Reproductive Hazard: None expected.

Section Seven: Precautions for Safe Handling and Use

Spills and Emergencies: For large spills (gallon quantities) flood the material to city sanitary sewer. During massive spills, workers should wear nitrile (household) gloves. Respirators are not required.

Waste Disposal This material may be banned from land disposal (for corrosivity) according to RCRA. The end user should determine disposal requirements for their area.

Section Eight: Control Measures

Ventilation: Standard household ventilation should be adequate to control human exposures to this product.

Applicators and other handlers must wear: Long-sleeved shirt, long pants, waterproof gloves, protective eyewear, and shoes plus socks.

Personal Decontamination: Good personal hygiene should be exercised by all users of our product.

Section Nine: Regulatory Issues

Environmental Regulations

Resource Conservation and Recovery Act: If this product were discarded as purchased, the material may be a listed waste under 40 CFR §261.22.

§ 261.21 Ignitability	No
§ 261.22 Corrosivity	Unknown
§ 261.23 Reactivity	Unknown
§ 261.24 Toxicity	No
F CODES	No
K CODES	No
P CODES	No
U CODES	No

Water Pollution Control Act: Not determined. This material should not be disposed of in municipal services, landfills, or natural waters.

Community Right to Know (SARA III)

Spill Reportable Quantity (§302)	1,000 Lbs
SECTION 311 (§370)	Yes
SECTION 312 (§370)	Yes
SECTION 313 (§372.65)	Yes
EXTREMELY HAZARDOUS LIST (§355)	No
REPORTING THRESHOLD	1,000 Lbs

Toxic Substance Control Act: All of the constituents found in the product except for chitosan (or chitin) are believed to be on the TSCA inventory.

Government Regulations:

EPA: EPA reg. no. 83729-1

State Regulations: This MSDS has been prepared to comply with the provisions found in the Federal Department of Labor OSHA Hazard Communication Standard. Several states, most notably CA, PA, NJ and MA have independently promulgated regulations pertaining to MSDSs. AgriHouse has not specifically determined if this MSDS is in compliance with the provisions in those states. The information provided below is for general information only and is not necessarily complete. It is possible that the product contains other compounds which appear on various state lists.

California Proposition 65: None of the compounds appeared on the MAY 1, 1997 California Safe Drinking Water And Toxic Enforcement Act Of 1986 List of Chemicals Known To The State To Cause Cancer Or Reproductive Toxicity.

Massachusetts, NJ, Pennsylvania

This MSDS has not been prepared specifically to comply with these state regulations and may or may not contain compounds present as such levels which could require reporting as required by the state.

DISCLAIMER

The information contained in this MSDS relates specifically to the material and may not be valid if used in combination with other materials or in any unspecified process. The information on YEA![®] Yield Enhancing Agent is accurate to the best of our knowledge but does not purport to be all inclusive and shall only be used as a general guide. It is the user's responsibility to ensure that the product will be suitable for particular usage. The user assumes all responsibility for compliance with applicable Federal, State and Local Regulations. We do not accept liability for damage or loss that may occur from the use of this information.