



Date: 12/12/2016

Revision: 01

Safety Data Sheet

ChitoVan™ Clear Trax 450

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Manufacturer's Name: Dungeness Environmental
Corporate Address: 909 SE Everett Mall Way, Ste. A119, Everett, WA 98208
Manufacturer's Telephone: (425) 481-0600 (Monday-Friday, 8AM-5PM PDT)
Emergency Telephone (24 Hours): (206) 390-2432
(country exit code) + 1-425-481-0600 (International)
Material/Trade/Product Name: ChitoVan Clear Trax 450
Synonyms: Chitosan Lactate
Chemical Name: Chitosan
Chemical Formula: Not available
CAS No.: 90-12-76-4
EPA Registration #: Not applicable
Product Use: Flocculates soil contamination in storm water.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

CAS NO.	COMPONENT	%	OSHA HAZARDOUS?
Trade Secret	Trade Secret	60-80	NO
	Trade Secret	40-20	NO

NOTE: See Section 8 for permissible exposure limits.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Fine Dry Powder

May be mildly irritating to eyes. Not likely to be hazardous to skin, respiratory tract, or by ingestion.

POTENTIAL HEALTH EFFECTS

EYE: May be mildly irritating to eyes.

SKIN: Not hazardous to skin.

INHALATION: Not likely to be hazardous by inhalation.

INGESTION: Not likely to be hazardous by ingestion.

CHRONIC EXPOSURE/CARCINOGENICITY: None of the components present in this material at concentrations of equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Eye irritation.

AGGRAVATION OF PRE-EXISTING CONDITIONS: None known.

POTENTIAL ENVIRONMENTAL EFFECTS: Material is 100% biodegradable and nontoxic.

SECTION 4: FIRST AID MEASURES

FIRST AID PROCEDURES:

EYE CONTACT: Remove contact lenses (if applicable), flush with water for 15 minutes. Call a physician.

SKIN CONTACT: Cleansing the skin after exposure is advisable.

INHALATION: If large amounts of fumes are inhaled, remove to fresh air and consult a physician.

INGESTION: Consult a physician if necessary.

NOTE TO PHYSICIANS: None.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: Not available

UPPER FLAMMABLE LIMIT: Not available

FLAMMABILITY CLASS (OSHA): Not applicable

UNIQUE FIRE PROPERTIES: None known.

HAZARDOUS COMBUSTION PRODUCTS: None.

EXTINGUISHING MEDIA: Does not burn. Use water, dry chemicals, carbon dioxide, sand or foam. Use extinguishing media appropriate for surrounding fire.

PROTECTION OF FIREFIGHTERS: Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coat, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Water may be used to keep fire-exposed containers cool until fire is out.

AUTOIGNITION TEMPERATURE: Not available

LOWER FLAMMABLE LIMIT: Not available

FLAME PROPAGATION/BURNING RATE: Not available

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: See Section 8 (Personal Protective Equipment).

ENVIRONMENTAL PRECAUTIONS: Material is 100% biodegradable and nontoxic.

METHODS FOR CLEANING UP: Dilute with water and hose down.

SECTION 7: HANDLING AND STORAGE

SAFE HANDLING RECOMMENDATIONS

VENTILATION: General ventilation should be sufficient under normal conditions.

FIRE PREVENTION: Non-flammable, no special fire protection required.

SPECIAL HANDLING REQUIREMENTS: Avoid eye contact.

SAFE STORAGE RECOMMENDATIONS

CONTAINMENT: The container should be kept covered to prevent contamination.

STORAGE ROOM RECOMMENDATIONS: Store in a cool, dry, well-ventilated area away from direct heat.

INCOMPATIBLE MATERIALS: Strong oxidizing material and strong bases.

STORAGE CONDITIONS: Shelf life is indefinite.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General ventilation should be sufficient under normal conditions.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

EYE/FACE PROTECTION: Safety glasses recommended.

SKIN PROTECTION: For operations where skin contact can occur, wear impervious clothing such as apron, boots, or whole bodysuit.

HAND PROTECTION: For operations where hand contact can occur, rubber gloves recommended.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Respirator use is not required for this product.

GOOD HYGEIENE/WORK PRACTICES: Always follow good hygiene/work practices by avoiding vapors or mists and contact with eyes and skin. Thoroughly wash hands after handling and before eating or drinking. Always wear the appropriate PPE when repairing or performing maintenance on contaminated equipment.

EXPOSURE GUIDELINES

PERMISSIBLE EXPOSURE LIMITS						
INGREDIENT CAS NO.	OSHA		WISHA		ACGIH (TLV)	
	TWA	STEL	TWA	STEL	TWA	STEL
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Gray
PHYSICAL FORM: Powder
pH: Not available
SHAPE: Granular
ODOR: None
VAPOR PRESSURE: Not available
VAPOR DENSITY: Not available
MELTING POINT: Not available
SOLUBILITY IN WATER: Partially Soluble
BOILING POINT: Not available
FREEZING POINT: Not available
SPECIFIC GRAVITY OR DENSITY: Not available

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Values should not be construed as a guaranteed analysis of any specific lot or as specifications.

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.
CONDITIONS TO AVOID: None known.
MATERIALS TO AVOID (INCOMPATIBILITY): Strong oxidizing agents and strong bases.
HAZARDOUS DECOMPOSITION PRODUCTS: None known.
HAZARDOUS POLYMERIZATION: Polymerization will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

ORAL LD₅₀ (mice): >16g/kg
DERMAL LD₅₀ (rabbit): Not available.
SKIN IRRITATION: Not available.
EYE IRRITATION: Not available.
SKIN SENSITIZATION: Not available.
ADDITIONAL INFORMATION: None

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY (in water):
Acute Toxicity

- Rainbow Trout LC 50 – 50.4 mg/L
- Rainbow Trout EC 25 – 37.5mg/L

MOBILITY: Not available.
PERSISTENCE AND DEGRADABILITY: Not available.

BIOACCUMULATIVE POTENTIAL: Not available.

ADDITIONAL INFORMATION: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

NOTE: Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT):

Proper Shipping Name: Not Regulated

Hazard Class: Not Regulated

Identification Number (UN Number): Not Regulated

Packing Group (PG): Not Regulated

SECTION 15: REGULATORY INFORMATION

TSCA STATUS: The substances in this preparation are included on or exempted from the TSCA 8(b) inventory (40 CFR 710).

CERCLA REPORTABLE QUANTITY (RQ):

CHEMICAL NAME	RQ
Not applicable	Not applicable

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (EHS):

CHEMICAL NAME	TPQ	RQ
Not applicable	Not applicable	Not applicable

SARA TITLE III SECTION 311/312 HAZARD CATEGORIES: Does this product/material meet the definition of the following hazard classes according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of SARA Title III?

ACUTE HEALTH HAZARD	CHRONIC HEALTH HAZARD	FIRE HAZARD	REACTIVE HAZARD	SUDDEN RELEASE OF PRESSURE
NO	NO	NO	NO	NO

SARA TITLE III SECTION 313 TOXIC CHEMICALS INFORMATION:

CHEMICAL NAME	CAS NO.	CONCENTRATION (%)
Not applicable	Not applicable	Not applicable

CALIFORNIA PROPOSITION 65: The following chemical(s) is/are known to have reproductive toxicity:

CHEMICAL NAME	CAS NO.	CONCENTRATION (%)
Not applicable	Not applicable	Not applicable

SECTION 16: OTHER INFORMATION

REVISION INFORMATION:

MSDS sections(s) changed since last revision of document:

None, this SDS is new, in accordance with OSHA's Hazard Communication Standard directive for GHS alignment.

DISCLAIMER:

***** The above information is based upon information Dungeness Environmental believes to be reliable and is supplied for informational purposes only. Dungeness Environmental disclaims any liability for damage which results from the use of the above information and nothing contained therein shall constitute a guarantee, warranty (including fitness for a particular purpose) or representation with respect to the accuracy or completeness of the data, the product described or their use for any specific purpose even if that purpose is known to Dungeness Environmental The final determination of the suitability of the information, the manner of use of the information or product and potential infringement is the sole responsibility of the user.

SDS PREPARED BY: Joel Van Ornum, President, Dungeness Environmental