

Section 1. Identification

Product Identifier: **Tissue Digester**
 Product Use: Tissue digester for use in holding tanks
 Manufacturer: Thetford Corporation
 7101 Jackson Road
 Ann Arbor, MI 48103
 Emergency Numbers: (734) 769-6000
 (800) 424-9300 (CHEMTREC - 24 hours)

Section 2. Hazards Identification

Classification: Eye Damage/Irritation - Category 2A Respiratory Sensitization - Category 1

Hazard Pictograms:



Signal Word: **DANGER**

Hazard Statements: Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements:

Prevention: Wash hands thoroughly after handling. Wear protective eye protection. Avoid breathing dust. Wear respiratory protection.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
 IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a doctor.

Disposal: Dispose of contents and container in accordance with all local regulations.

Section 3. Composition/Information on Ingredients

Mixture of the following ingredients with non hazardous additions.

Ingredient Name	Wt%	CAS Number
Cellulase	4.3	NA - Mixture
Citric Acid	14.00	77-92-9
Iminodisuccinic Acid Sodium Salt	1.00	144538-83-0
Sodium Lauryl Sulfate	1.20	151-21-3

Section 4. First Aid Measures
First Aid Measures

Inhalation: Remove from contaminated area if irritation occurs. Get medical attention if breathing difficult.

Skin Contact: Wash with soap and water. Wash clothes before reuse.

Eye Contact: Flush contacted area immediately with large amounts of water. Irrigate eyes for a minimum of 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion: Do not induce vomiting. Drink large amounts of water. Contact a physician.

Potential Acute Health Effects

Inhalation: Causes respiratory irritation. May cause allergic respiratory reaction.

Skin Contact: Not a skin irritant.

Eye Contact: Causes serious eye irritation.

Ingestion: Not toxic if ingested. May elevate blood pressure.

Potential Over-Exposure Symptoms

Inhalation:	Nasal discharge, coughing, and possible allergic reaction.
Skin Contact:	May cause irritation is left on skin.
Eye Contact:	Eye irritation with watering and possible burning sensation.
Ingestion:	None known.

Potential Chronic Health Effects

Inhalation:	Chronic exposure may lead to allergic sensitization based on exposure level, duration and susceptibility.
-------------	---

Section 5. Fire-Fighting Measures

Extinguishing Media:	Water fog, foam, dry chemical, or carbon dioxide
Specific hazards arising from the chemical:	None known
Hazardous thermal decomposition products:	Oxides of carbon.
Special protective actions for fire-fighters:	None
Special protective equipment for fire-fighters:	None

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear appropriate personal clothing. Eliminate sources of ignition. Minimize dusting and prevent distribution of airborne dust. Avoid inhalation. Sweep up spills. Place in closed containers for disposal. Mop area with of clean water.

Method and materials for containment and clean up

Use spark-proof tools and explosion-proof equipment. Dispose of in accordance with federal, state, and local regulations. Avoid release into the environment.

Section 7. Handling and Storage

Precautions for safe handling:	Do not get in eyes or on skin. Do not inhale dust. Wash thoroughly after handling. Keep containers tightly closed.
Conditions for safe storage:	Store in dry containers at 40°F (4°C) below 75% humidity. Keep container closed when not in use.

Section 8. Exposure Control/Personal Protection

<u>Occupational Exposure Limits</u>	Contains no substances with occupational exposure limit values.
-------------------------------------	---

Appropriate Engineering Controls

Maintain adequate ventilation. Use explosion-proof equipment if high dust/air concentrations are possible.

Personal Protection

Respiratory Protection:	NIOSH approved respirator with N95 cartridge.
Skin Protection:	Rubber gloves
Eye/Face Protection:	Safety glasses or goggles
Hygiene Measures:	Wash hands thoroughly after handling especially before eating, drinking and smoking. Wash contaminated clothing before reuse. Have eyewash and safety shower available.

Section 9. Physical and Chemical Properties

Physical State:	Solid, granules	Upper/Lower Explosive Limits:	Not available
Color:	Rose	Vapor Pressure:	Not applicable
Odor:	Yeasty	Vapor Density:	Not applicable
Odor Threshold:	Not available	Specific Gravity:	Not applicable
pH (10% solution)	3.75 - 4.5	Bulk Density:	51 - 56 lb/cu ft

Melting Point:	Not available	Solubility:	Complete if < 36%
Freezing Point:	Does not freeze	Partition coefficient n-octanol/water:	Not applicable
Boiling Point:	Not applicable		
Flash Point:	Not available	Auto-ignition Temperature:	Not available
Evaporation Rate:	Not available	Decomposition Temperature:	Not available
Flammability:	Not available	Viscosity:	Not applicable

Section 10. Stability and Reactivity

Reactivity:	Product releases carbon dioxide with the addition of water.
Chemical Stability:	The product is stable.
Possibility of Hazardous Reactions:	Under normal conditions of storage and use hazardous reactions will not occur.
Conditions to Avoid:	Elevated temperatures and humidity.
Incompatible Materials:	Concentrated acids.
Hazardous Decomposition Products:	Thermal decomposition may produce oxides of carbon.

Section 11. Toxicological Information

Information on the likely routes of exposure: Dermal contact. Eye contact. Inhalation.

Potential Acute Health Effects

Inhalation:	Causes respiratory irritation. May cause allergic respiratory reaction.
Skin Contact:	May cause irritation is left on skin.
Eye Contact:	Causes serious eye irritation.
Ingestion:	Not toxic if ingested. May elevate blood pressure.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Inhalation:	Nasal discharge, coughing, and possible allergic reaction.
Skin Contact:	May cause irritation is left on skin.
Eye Contact:	Eye irritation with watering and possible burning sensation.
Ingestion:	None known.

Potential Chronic Health Effects

Short Term Exposure

Potential immediate effects:	Possible eye irritation from contact. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
------------------------------	--

Long Term Exposure

Potential delayed effects:	None known.
General:	Repeated contact may cause dryness of the skin.
Carcinogenicity:	Ingredients not listed by ACGIH, IARC, NIOSH, NTP OR OSHA.
Mutagenicity:	No data available on mixture.
Teratogenicity:	No known significant effects or critical hazards.
Developmental Effects:	No known significant effects or critical hazards.
Fertility Effects:	No known significant effects or critical hazards.

Information on Toxicological Effects

Acute Toxicity

Components:

May elevate blood pressure if ingested.

Cellulase		Not available
Citric Acid	LD50 Oral	11,700 mg/kg (rat)
	LD50 Dermal	>2,000 mg/kg (rat)
Iminodisuccinic Acid Sodium Salt	LD50 Oral	>5,000 mg/kg (rat) extrapolation
	LD50 Dermal	>2,000 mg/kg (rat)
Sodium Lauryl Sulfate	LD50 Oral	1,200 mg/kg (rat)
	LD50 Dermal	>2,000 mg/kg (rat)

Respiratory or skin sensitization

Respiratory sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization No known significant effects or critical hazards.

Carcinogenicity: Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH).

Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive Toxicity: No data available to indicate product or any components present at greater than 0.1% presents reproductive hazards.

Specific target organ toxicity - single exposure: Not classified as such

Aspiration hazard Not an aspiration hazard

Acute toxicity estimates (ATE)

Route	ATE value
Oral	>3600 mg/kg

Section 12. Ecological Information

Toxicity Not toxic to aquatic organisms.

Components

Cellulase		Not available
Citric Acid	LC50/48h Fish	440 mg/l (Golden orfe)
	LC50/24h	1.535 mg/l (Daphnia magna)
	168h Algae	425 mg/l (Green algae)
Iminodisuccinic Acid Sodium Salt	LC0/96h Fish	>82.6 mg/l (Danio rerio)
	ECO/84h	>84 mg/l (Daphnia magna)
Sodium Lauryl Sulfate	EC50/72h Algae	60 mg/l (cell number)
	EC50/48h Crustacea	1.37 - 4.7 mg/l
	LC50/96h Fish	3.6 mg/l

Persistence and Degradability: Organic ingredients are biodegradable.

Bioaccumulative Potential: No bioaccumulation expected

Mobility in Soil: Not available

Other Adverse Effects: No known significant effects or critical hazards.

Section 13. Disposal Considerations

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Waste disposal should be in accordance with existing federal, state, and local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport Information

UN Number: Not Regulated Hazard Class: Not applicable

UN Proper Shipping Name: Not applicable Packing Group: Not applicable

Environmental Hazard: No

Section 15. Regulatory Information

SARA 311/312: Immediate acute health hazard
SARA Title III Section 313 EHS: None
SARA Title III Section 313 Toxic: None

Section 16. Other Information

Date of Issue:	26-May-15	Prepared by:	Janis Thomson
Date of previous issue:	10-Jan-14	MSDS Number:	50078
Version:	2		

Not for publication