

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 MeasuresFirst 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

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|---------------|--|
| Inhalation: | Nasal discharge, coughing, and possible allergic reaction. |
| Skin Contact: | May cause irritation if 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

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| 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

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|--------------------------------|--|
| 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

Occupational Exposure Limits

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

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|-------------------------|---|
| 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

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|-------------------------------------|--|
| 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 LD50 Dermal | 11,700 mg/kg (rat) >2,000 mg/kg (rat) |
| Iminodisuccinic Acid Sodium Salt | LD50 Oral LD50 Dermal | >5,000 mg/kg (rat) extrapolation >2,000 mg/kg (rat) |
| Sodium Lauryl Sulfate | LD50 Oral LD50 Dermal | 1,200 mg/kg (rat) >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 LC50/24h 168h Algae | 440 mg/l (Golden orfe) 1.535 mg/l (Daphnia magna) 425 mg/l (Green algae) |
| Iminodisuccinic Acid Sodium Salt | LC0/96h Fish ECO/84h | >82.6 mg/l (Danio rerio) >84 mg/l (Daphnia magna) |
| Sodium Lauryl Sulfate | EC50/72h Algae EC50/48h Curstacea LC50/96h Fish | 60 mg/l (cell number) 1.37 - 4.7 mg/l 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

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