

F-55 Bio-Zyme

Material Data Safety Sheet (MSDS)

Diversified Waterscapes, Inc. urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals that are experts in ventilation, toxicology and fire prevention; as necessary or appropriate to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety (2) furnish this same information to each of its customers for the product (3) request its customers to notify their employees, customers and other users of the product of this information.

Section 1 – Chemical Product & Company Identification

Trade Name:	Formula F-55 Bio-Zyme	Revision Date: 05/31/2011
CAS Name:	Mixture	
Product Description:	A concentrated non-bacterial readily biodegradable, enzymatic solution.	
Manufactured for:	Diversified Waterscapes, Inc.	
Street Address, City & State:	27324 Camino Capistrano Suite 213, Laguna Niguel, CA 92677-1118	
For Technical Support:	949-582-5414	
For Chemical Emergency Only:	800-424-9300	

Section 2 – Composition/Information on Ingredients

Name	CAS#	WT/V%	TLV(ACGIH)
Formula F-55 Bio-Zyme is a proprietary composition “not considered hazardous” under the OSHA Hazard Communication Standard CFR Title 29 1910.1200.			

Section 3 – Hazards Overview

EMERGENCY OVERVIEW: Moderately irritating to the eyes. Mild skin irritation.

POTENTIAL HEALTH EFFECTS:

Ingestion:	May cause irritation to mouth and throat. May cause nausea.
Eye Contact:	May cause irritation unless immediately rinsed.
Skin Contact:	May cause irritation upon prolonged contact.
Inhalation:	Unknown.

Section 4 – First Aid Measures

FIRST AID PROCEDURES

Ingestion:	Give large amounts of water. Do not induce vomiting. If spontaneous vomiting is inevitable, prevent aspiration by keeping victim's head below the knees. Get immediate medical attention.
Eye Contact:	Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
Skin Contact:	Flush skin with large amounts of water. Remove any contaminated clothing and wash before reuse. Seek medical attention if irritation occurs.
Inhalation:	If symptoms are experienced, remove source of contamination and/or move victim to fresh air. If breathing is difficult, have trained personnel administer oxygen. If respiration stops, have trained personnel administer artificial respiration. Get medical attention immediately.

Section 5 – Fire & Explosion

Flash Point:	None
Extinguishing media:	Water fog or fine spray, carbon dioxide, dry chemical or foam.
Special fire fighting protective equipment:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6 – Accidental Release Measures

Personal Precautions:	Isolate area. Keep unnecessary personnel away. Keep out of low areas. Ventilate closed spaces before entering.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so.
Methods for Containment:	Prevent entry into waterways, sewers, basements, or confined areas.
Methods for Clean-Up:	Wear appropriate protective equipment and clothing during clean-up. Large spill: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Dispose in accordance with all local, state, and federal regulations. Small spill: Follow same procedure as above.

Section 7 - Handling and Storage

Handling:	Avoid contact with skin and eyes. Wash hands thoroughly after handling.
Storage:	Store this product below 120° F (49° C), preferably below 75° F (24° C), in a cool, dry, well ventilated area away from heat, sparks, flame, oxidizers and out of direct sunlight. For best results, use within 12 months.

Section 8 – Exposure Controls, Personal Protection

General:	Eye wash fountain is recommended.
Eyes:	Wear chemical goggles.
Skin:	Wear suitable protective clothing. Use impervious gloves.

Section 9 – Physical Data

Vapor Pressure:	<.01 mm Hg @ 68° F (20° C)
Vapor Density (air = 1):	Same as water
Specific Gravity:	~1.04 – 1.05 @ 77° F (25° C)
Solubility in Water:	Complete
Volatile Organic Content:	Negligible
Appearance:	Translucent dark amber liquid
pH:	3.8-4.2 @ 77° F (25° C)
Boiling Point:	>212° F (100° C)
Flash Point:	None
Freezing Point:	< 32° F (0° C)
Evaporation Rate:	<0.01 *N-butyl acetate = 1
Weight:	8.7—8.8 lbs. / gallon
Odor:	Mild

Section 10 – Stability and Reactivity

Chemical Stability:	Stable at normal conditions.
Incompatible Materials:	Strong oxidizing agents, alkalis
Hazardous Decomposition Products:	None known.
Conditions to avoid:	See section 7.
Hazardous Polymerization:	Will not occur.

Section 11 – Toxicology Information

Toxicology data:		
48 hr. LC50	<i>D.pulex</i> (daphnia)	12.00 mg/l
96 hr. LC50	<i>P. promelas</i> (fathead minnow)	20.00 mg/l

Section 12 – Ecological Information

Ecotoxicity:	Readily biodegradable
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Section 13 – Disposal Considerations

Disposal Instructions:	Dispose in accordance with all applicable regulations. All wastes must be handled in accordance with local, state and federal regulations. Regulations vary.
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Section 14 – Transportation Information

General Information:	Non-hazardous
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US DOT

Proper Shipping Description:	NMFC 48580.3 Cleaning/Scouring/Wash Comp Class 55
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Section 15 – Regulatory Information

TSCA Inventory Status:	This product and/or all of its components are either included on or exempt from the TSCA Inventory of Chemical Substances.
DSL (Canada):	This product and/or all of its components are either included on or exempt from the Domestic Substances List.

Section 16 – Other Information

HMIS ratings:	Health: 1 Flammability: 0 Physical hazard: 0
NFPA ratings:	Health: 1 Flammability: 0 Reactivity: 0
Disclaimer:	The information contained herein is based on data considered accurate. However; no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Diversified Waterscapes, Inc. assumes no responsibility for personal injury or property damage to the Vendee, Users or Third Parties caused by the material. Such Vendees or Users assume all risks associated with the use of this material.