SAFETY DATA SHEET

Section 1. Product And Company Identification

Product Name: **MaxiZyme® Dual Enzymatic Detergent**

Product Use: Dual Enzymatic Detergent.

Distributor: Henry Schein, Inc.
135 Duryea Road
Melville, NY 11747
U.S.A.

Information Phone Number: 1-800-472-4346

Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):
CHEMTREC 1-800-424-9300 (in the US)

SDS Date Of Preparation/Revision: 11/29/18

Section 2. Hazards Identification

GHS / HAZCOM 2012 Classification:
Respiratory Sensitization Category 1

Label Elements

Danger!

Avoid breathing mist, vapors or spray.
In case of inadequate ventilation wear respiratory protection.
IF INHALED: remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER.
Dispose of contents and container in accordance with local and national regulations.

Section 3. Composition/Information On Ingredients

Component	CAS No.	Amount
Water and non-hazardous ingredients	Mixture	60-85%
Propylene glycol	57-55-6	10-30%
Trisodium Citrate Dihydrate	68-04-2	5-10%
Proteinase subtilisin	9014-01-1	0.1-<1%

Section 4. First Aid Measures

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Seek medical attention if irritation develops and persists.

Skin Contact: Wash with soap and water. Seek medical attention if irritation develops and persists. Remove and launder contaminated clothing.

Inhalation: Move to fresh air. If respiratory symptoms occur, get medical attention.

Ingestion: If the victim is alert, have them rinse their mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Do not attempt to give anything by mouth to an unconscious person. Seek medical advice by calling a Poison Center or doctor.

Most important symptoms and effects, acute and delayed: May cause eye and skin irritation. Inhalation of mists may cause irritation of the mucous membranes and upper respiratory tract. Inhalation of mists may cause an allergic reaction, particularly in sensitized individuals.

Indication of immediate medical attention and special treatment, if needed: Treat symptomatically.

Section 5. Fire Fighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any extinguishing media that is appropriate for the surrounding fire. Cool fire exposed containers with water.

Specific Hazards Arising from the Chemical: None known.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

Section 6: Accidental Release Measures

Personal precautions, Protective equipment, and Emergency procedures: Wear appropriate protective clothing and equipment.

Methods and Materials for Containment and Cleaning up: Collect material with an inert absorbent material and place in appropriate, labeled container for disposal.

Section 7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes, skin and clothing. Avoid generating and breathing mists. Wear appropriate eye protection when handling. Wash thoroughly with soap and water

after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Conditions for Safe Storage, Including any Incompatibilities: Store at room temperature.

Section 8. Exposure Controls / Personal Protection

Exposure Limits

Chemical	Exposure Limit
Propylene glycol	10 mg/m3 TWA AIHA WEEL
Trisodium Citrate Dihydrate	None Established
Proteinase subtilisin	0.00006 mg/m3 (as 100% crystalline active pure enzyme) TWA ACGIH Ceiling Limit

Appropriate Engineering Controls: General ventilation should be adequate for normal use. For operations where the exposures are excessive, mechanical ventilation such as local exhaust may be needed to minimize exposure.

Respiratory Protection: None under normal use conditions with adequate ventilation. For operations where the occupational exposure limits are exceeded, an approved respirator with particulate cartridges is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with applicable regulations and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Hand protection: Impervious gloves such as butyl rubber or nitrile are recommended.

Eye Protection: Safety goggles are recommended if needed to prevent eye contact.

Skin Protection: Wear protective clothing if needed to avoid prolonged/ repeated skin contact.

Hygiene measures: Suitable eye wash and washing facilities should be available in the work area.

Section 9. Physical and Chemical Properties

Appearance:	Clear blue liquid.	**Odor:**	Coastal Breeze Scent
Odor Threshold:	Not determined	**pH:**	7.5-8.5
Melting/Freezing Point:	Not determined	**Boiling Point/Range:**	100-105°C
Flash Point:	Not flammable	**Evaporation Rate:**	<1
Flammability: (Solid, Gas)	Not applicable	**Flammability Limits:**	Not applicable
Vapor Pressure:	Same as water	**Vapor Density:**	Same as water
Relative Density:	>1.07	**Solubilities:**	Completely soluble
Partition Coefficient: (N-Octanol/Water)	Not determined	**Autoignition Temperature:**	Not determined
Decomposition Temperature:	Not determined		

Section 10. Stability and Reactivity

Reactivity: Not reactive at ambient temperatures.
Chemical Stability: Stable.
Possibility of Hazardous Reactions: Not reactive.
Conditions to avoid: Avoid excessive heat.
Incompatible Materials: Strong oxidizing agents, strong acids and bleach.
Hazardous decomposition products: Thermal decomposition will produce carbon monoxide, carbon dioxide, nitrogen oxides, and hydrocarbons.

Section 11. Toxicological Information

Potential Health Effects:

Inhalation: May cause minor irritation of the nose, throat and upper respiratory tract. Inhalation of mists may cause an allergic reaction in individuals sensitized to enzymes.

Skin Contact: Prolonged or repeated exposure may cause mild irritation.

Eye Contact: May cause irritation with tearing, redness and pain.

Ingestion: Ingestion may cause gastrointestinal disturbances.

Chronic Hazards: None currently known.

Sensitization: Inhalation studies with guinea pigs showed proteinase subtilisin caused respiratory sensitization.

Mutagenicity: None of the components have been shown to cause mutagenic activity.

Developmental / Reproductive Toxicity: This product is not expected to cause adverse reproductive or developmental effects.

Carcinogen: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

Acute Toxicity Values:
Propylene Glycol: LD50 Oral Rat 20,000 – 34,000 mg/kg; LD50 Dermal Rabbit >20,000 mg/kg
Trisodium Citrate Dihydrate: No data available.
Proteinase subtilisin: LD50 Oral Rat 1800 mg/kg

Section 12. Ecological Information

Toxicity: No toxicity data available for product.
Propylene Glycol: 96 hr LC50 Oncorhynchus mykiss 40613 mg/L, 48 hr Ceriodaphnia dubia 18340 mg/L, 72 hr EC50 algae 19300 mg/L
Trisodium Citrate Dihydrate: Not toxicity data available
Proteinase subtilisin: 96 hr LC50 Oncorhynchus mykiss 14.6 mg/L, 48 hr LC50 daphnia magna 0.306 mg/L, 72 hr EC50 algae 830 µg/L.

Persistence and degradability: Propylene glycol and Proteinase subtilisin are readily biodegradable. Trisodium Citrate Dihydrate is inherently biodegradable.

Bioaccumulative Potential: Propylene glycol and trisodium citrate dehydrate have a BCF of <1.

Mobility in Soil: No data available for product.

Other Adverse Effects: None known

Section 13. Disposal Considerations

Solution Disposal: For unused solution, flush thoroughly with large quantities if water into sewage disposal system in accordance with Federal, State, and local regulations. For used solution, the waste solution must be characterized by the generator and disposed of in accordance with Federal, State, and local regulations.
Container Disposal: Do not reuse empty container. Wrap container and put in trash.

Section 14. Transport Information

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
U.S. DOT	None	Not Regulated			None
Canada TDG	None	Not Regulated			None
IMDG	None	Not Regulated			None
IATA/ICAO	None	Not Regulated			None

Section 15. Regulatory Information

EPA SARA 311/312 Hazard Classification: Acute Health, Chronic Health

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Protection Of Stratospheric Ozone: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements; however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Canadian Regulations

National Pollutant Release Inventory (NPRI): This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements NPRI: None

WHMIS Classification: Class D-2-A
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International Inventories

US EPA TSCA Inventory: All of the components in this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

European Union: All the components in this product are listed on the EINECS inventory or exempt.

China: All of the components in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC) or exempt.

Korea: All of the components in this product are listed on the Korean Existing Chemicals List (KECL) or exempt.

New Zealand: All of the components in this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempt.

Section 16. Other Information

NFPA Rating: Fire: 0 Health: 2 Instability: 0

Effective Date: 11/29/18

Supersedes Date: 4/9/2013

Revision Summary: New SDS – Rev 0
Section 3: Minor update on CAS number – Rev 1

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