

**Safety Data Sheet (SDS)**

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 03/14/2023

Reviewed on 03/14/2023

**1 Identification**

- **Product Identifier**
- **Trade Name: MaxiZyme Enzymatic Detergent**
- **Product Number:** 570-3275
- **Relevant identified uses of the substance or mixture and uses advised against:**  
For professional use only
- **Product Description:** Concentrated Enzymatic Ultrasonic Cleaning Solution
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**  
Henry Schein, Inc.  
135 Duryea Road  
Melville, NY 11747  
Phone: 800-472-4346 (Product Information)  
Email: customer.service@henryschein.com
- **Emergency telephone number:** 800-472-4346

**2 Hazard(s) Identification**

- **Classification of the substance or mixture:**



Health hazard

Sensitization - Respiratory 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



Corrosion

Eye Damage 1

H318 Causes serious eye damage.



Skin Irritation 2

H315 Causes skin irritation.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Danger
- **Hazard-determining components of labeling:**  
Subtilisin
- **Hazard statements:**  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Precautionary statements:**  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 Wash thoroughly after handling.  
P280 Wear eye protection / face protection.  
P284 [In case of inadequate ventilation] wear respiratory protection.

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P302+P352	If on skin: Wash with plenty of water.
P304+P341	If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a poison center/doctor.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Unknown acute toxicity:**

This value refers to knowledge of known, established toxicological or ecotoxicological values. 0 % of the mixture consists of component(s) of unknown toxicity.

- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = *3
FIRE	1	Fire = 1
REACTIVITY	0	Physical Hazard = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

### 3 Composition/Information on Ingredients

- **Chemical characterization: Substance**

- **Description:** Mixture of substances listed below with non-hazardous additions.

- **Dangerous Components:**

CAS: 56-81-5 RTECS: MA 8050000	Glycerin ⚠ Acute Toxicity - Oral 4, H302; Skin Irritation 2, H315; Eye Irritation 2B, H320	<50%
CAS: 9014-01-1 RTECS: CO 9550000	Subtilisin ⚠ Sensitization - Respiratory 1, H334; ⚠ Eye Damage 1, H318; ⚠ Skin Irritation 2, H315; Specific Target Organ Toxicity - Single Exposure 3, H335	<5%

- **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

### \* 4 First-Aid Measures

- **Description of first aid measures**

- **General information:** If symptoms persist, call a physician.

- **After inhalation:** In case of unconsciousness place patient stably in the side position for transportation.

- **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.  
If skin irritation occurs, consult a doctor.

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**Trade Name: MaxiZyme Enzymatic Detergent****· After eye contact:**

Rinse opened eye for at least 15 minutes under running water.

Seek medical treatment.

If easy to do so, remove contact lenses if worn.

Have eyes examined and tested by medical personnel.

**· After swallowing:**

Promptly drink large quantities of milk, egg whites, gelatin solution or water: seek medical attention.

**· Information for doctor****· Most important symptoms and effects, both acute and delayed:** No further relevant information available.**· Indication of any immediate medical attention and special treatment needed:** Treat symptomatically.**\* 5 Fire-Fighting Measures****· Extinguishing media****· Suitable extinguishing agents:**

Use fire fighting measures that suit the environment.

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**· For safety reasons unsuitable extinguishing agents:** No further relevant information is available.**· Special hazards arising from the substance or mixture:**Decomposition products may include oxides of carbon (CO, CO<sub>2</sub>), smoke and/or vapors.**· Advice for firefighters****· Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

**· Additional information:** Cool endangered receptacles with water spray.**\* 6 Accidental Release Measures****· Personal precautions, protective equipment and emergency procedures:**

Wear assigned protective equipment. Keep unprotected persons away.

**· Environmental precautions:** Dilute with plenty of water.**· Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

**· Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**· PAC-1:**

56-81-5 Glycerin

45 mg/m<sup>3</sup>**· PAC-2:**

56-81-5 Glycerin

180 mg/m<sup>3</sup>**· PAC-3:**

56-81-5 Glycerin

1,100 mg/m<sup>3</sup>**7 Handling and Storage****· Handling****· Precautions for safe handling:**

Avoid contact with skin, eyes and clothing

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Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Store in a cool, dry place.  
Store in a well ventilated place.
- **Information about storage in one common storage facility:** See Section 10 (Incompatible materials)
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

**\* 8 Exposure Controls/Personal Protection**

- **Additional information about design of technical systems:** No further data; see section 7.

- **Control parameters:**

- **Components with occupational exposure limits:**

**56-81-5 Glycerin**

PEL Long-term value: 15\* 5\*\* mg/m<sup>3</sup>  
mist; \*total dust \*\*respirable fraction

TLV TLV withdrawn-insufficient data human occup. exp.

**9014-01-1 Subtilisin**

REL Short-term value: 0.00006\* mg/m<sup>3</sup>  
\*60-min

TLV Ceiling limit value: 0.00006 mg/m<sup>3</sup>  
as 100% crystalline active pure enzyme

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

- **Exposure controls:**

Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS. Where acceptable concentrations cannot be maintained by general mechanical ventilation, local exhaust ventilation is recommended.

- **Personal protective equipment**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Breathing equipment:**



NIOSH/OSHA or EN approved respiratory protection is recommended for use in airborne concentrations exceeding exposure limits.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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- **Material of gloves:** Rubber gloves
- **Penetration time of glove material:**  
The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.
- **Eye protection:**



Tightly sealed goggles

- **Limitation and supervision of exposure into the environment:** None

\* **9 Physical and Chemical Properties**· **Information on basic physical and chemical properties**· **General Information**· **Appearance:****Form:**

Liquid

**Color:**

Blue

· **Odor:**

Ammonia-like

· **Odor threshold:**

Not determined.

· **pH-value @ 20 °C (68 °F):**

7.1

· **Change in condition****Melting point/Melting range:**

Not determined.

**Boiling point/Boiling range:**

≥290 °C (≥554 °F)

· **Flash point:**

190 °C (374 °F)

· **Flammability (solid, gaseous):**

Not applicable.

· **Auto igniting:**

≥400 °C (≥752 °F)

· **Decomposition temperature:**

Not determined.

· **Ignition temperature:**

Product is not self-igniting.

· **Danger of explosion:**

Product does not present an explosion hazard.

· **Explosion limits:****Lower:**

0.9 Vol %

**Upper:**

0.0 Vol %

· **Vapor pressure @ 20 °C (68 °F):**

&lt;0.1 hPa

· **Density @ 20 °C (68 °F):**1.01 g/cm<sup>3</sup> (8.4285 lbs/gal)· **Relative density:**

Not determined.

· **Vapor density:**

Not determined.

· **Evaporation rate:**

Not determined.

· **Solubility in / Miscibility with:****Water:**

Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:****Dynamic:**

Not determined.

**Kinematic:**

Not determined.

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- **Solvent content:**
  - Organic solvents:** 50.0 %
  - VOC content:** 0.00 %
- **Other information:** No further relevant information available.

**10 Stability and Reactivity**

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:**  
Carbon dioxide and carbon monoxide may form when heated to decomposition.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Avoid strong oxidizers.
- **Incompatible materials:** Strong oxidizing agents.
- **Hazardous decomposition products:** No dangerous decomposition products known.

**\*11 Toxicological Information**

- **Information on toxicological effects:**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**56-81-5 Glycerin**

Oral	LD50	12,600 mg/kg (Rat)
Dermal	LD50	>10,000 mg/kg (Rabbit)
Inhalative	LC50/96 hours	>50,000 mg/l (Trout)

**9014-01-1 Subtilisin**

Oral	LD50	3,700 mg/kg (Rat)
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- **Primary irritant effect:**
- **On the skin:**  
Strong caustic effect on skin and mucous membranes.  
Irritant to skin and mucous membranes.
- **On the eye:**  
Strong irritant with the danger of severe eye injury.  
Corrosive effect.  
Causes serious eye irritation.
- **Sensitization:** Sensitization possible through inhalation.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant

- **Carcinogenic categories:**

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

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**Trade Name: MaxiZyme Enzymatic Detergent****· OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

**12 Ecological Information**

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

**13 Disposal Considerations**

- **Waste treatment methods**
- **Recommendation:**  
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport Information**

- **UN-Number:**
- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

**\*15 Regulatory Information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**  
No further relevant information available.

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**Trade Name: MaxiZyme Enzymatic Detergent****· SARA (Superfund Amendments and Reauthorization):****· Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

**· Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

**· TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

**· Hazardous Air Pollutants**

None of the ingredients are listed.

**· California Proposition 65:****· Chemicals known to cause cancer:**

None of the ingredients are listed.

**· Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**· Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**· Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**· New Jersey Right-to-Know List:**

56-81-5 Glycerin

**· New Jersey Special Hazardous Substance List:**

None of the ingredients are listed.

**· Pennsylvania Right-to-Know List:**

56-81-5 Glycerin

**· Pennsylvania Special Hazardous Substance List:**

None of the ingredients are listed.

**· Carcinogenic categories:****· EPA (Environmental Protection Agency):**

None of the ingredients are listed.

**· TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients are listed.

**· NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

**· GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**· Hazard pictograms:****· Signal word: Danger****· Hazard-determining components of labeling:**

Subtilisin

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**Trade Name: MaxiZyme Enzymatic Detergent****Hazard statements:**

H315 Causes skin irritation.

H318 Causes serious eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Precautionary statements:**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P280 Wear eye protection / face protection.

P284 [In case of inadequate ventilation] wear respiratory protection.

P302+P352 If on skin: Wash with plenty of water.

P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

P362+P364 Take off contaminated clothing and wash it before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**National regulations:**

The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other Information**

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

**Contact:****Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety &amp; Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Eye Irritation 2B: Serious eye damage/eye irritation – Category 2B

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Sensitization - Respiratory 1: Respiratory sensitisation – Category 1

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

· **\* Data compared to the previous version altered.**

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