

Material Safety Data Sheet

MSDS-008 Rev. F
 Product Name: ENZOL® Enzymatic Detergent
 Issue date: 10-3-07

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Supplier:
 Advanced Sterilization Products
 33 Technology Drive
 Irvine, CA 92618

Customer Service Telephone: 888-783-7723
Emergency telephone number: 877-208-6653 (24 hours)
Product name: ENZOL® Enzymatic Detergent
Synonyms: CIDEZYME® Enzymatic Detergent

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %	J&J - OEL Data (TWA - 8 hr)	J&J - OEL Data (STEL):	J&J - OEL Data (Ceiling Limit Value):	J&J - PBOEL
Subtilisins (proteolytic enzymes)	9014-01-1	<5	Not Determined	Not Determined	60 ng/m ³	3B

3. HAZARDS IDENTIFICATION

Emergency overview: Not flammable or expected to be a significant health hazard.

Properties affecting health: May cause sensitization by skin contact.
 Irritating to the eyes, skin, mucous membranes, gastrointestinal and upper respiratory tract.

Principle routes of exposure:

- Oral:** Ingestion may cause irritation to mucous membranes.
- Eye contact:** Irritating to eyes.
- Skin contact:** Irritating to skin. May cause sensitization by skin contact.
- Ingestion:** Ingestion of this material may cause symptoms such as nausea, vomiting, gastric distress, diarrhea and headache.
- Inhalation:** Fragrance may cause irritation.

Hazard information:

- Target organ effects:** Unknown on product.
- Reproductive effects:** Unknown on product.
- Mutagenic effects:** Unknown on product.
- Sensitization:** May cause sensitization by skin contact.

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Carcinogenicity rating:

Components	CAS Number	J & J:	NTP:	IARC:	California Proposition 65 List:
Subtilisins (proteolytic enzymes)	9014-01-1	Not Determined	Not Determined	Not Determined	Not Determined

Signs and symptoms: Potential allergic reaction.

Medical conditions aggravated by exposure: Potential allergic reaction.

4. FIRST AID MEASURES

Eye contact: In the case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical attention.

Ingestion: Do not induce vomiting. If ingested, seek medical attention immediately and show the label.

Inhalation: Move to fresh air immediately. If experiencing difficulty breathing, seek medical attention.

Skin contact: If the product causes skin irritation or sensitization, contact a physician immediately.

Protection of first-aiders: None.

Notes to physician: None.

5. FIRE-FIGHTING MEASURES

Flash point (°F): >200

Flash point (°C): >93 ° C

Autoignition temperature: Not applicable .

Flammable limits in air - lower (%): Not applicable .

Flammable limits in air - upper (%): Not applicable .

NFPA rating: Health: 1 flammability: 0 reactivity: 0

Fire fighting information:

Suitable extinguishing media: Use any extinguishing media which is suitable for the surrounding fire.

Extinguishing media which must not be used for safety reasons: None.

Specific methods: None.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products: None.

Explosivity: Not applicable .

Explosion limits:

lower: Not applicable .

upper: Not applicable .

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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Wear eye and skin protection while handling material for clean-up.
Wear dust/mist respirator if material is aerosolized.
- Environmental precautions:** Collect and discard into appropriate container, then dispose of in accordance with all applicable federal, state and local regulations.
- Methods for cleaning up:** Contain, absorb and transfer to disposable container.
Dilute with plenty of water.
Clean thoroughly.

7. HANDLING AND STORAGE

Handling:

- Technical measures/precautions:** Ensure adequate ventilation.
Safe handling advice: Wear safety glasses and gloves.

Storage:

- Technical measures/storage conditions:** Store at 59-86°F (15-30°C).
Incompatible products: None known..

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering controls:** Ensure adequate ventilation especially in confined areas.
- Eye protection:** Eye protection required.
- Hand protection:** Chemical resistant gloves required.
- Skin and body protection:** Wear suitable protective clothing.
- Respiratory protection:** None required under normal use..
- Other/general protection:** None required.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance:** Clear
Physical state: Liquid
Color: Violet
pH: 7.8-8.8
Odor: Spearmint

10. STABILITY AND REACTIVITY

- Chemical stability:** Stable under recommended storage conditions.
- Hazard polymerization:** Will not occur.
- Hazardous decomposition products:** Carbon monoxide and carbon dioxide.
- Materials to avoid:** None known..
- Conditions to avoid:** Temperatures above 40°C

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11. TOXICOLOGICAL INFORMATION

Acute toxicity	Unknown on product
Local effects	
Oral:	Ingestion may cause irritation to mucous membranes
Eye irritation	Irritating to the eyes.
Skin irritation:	Irritating to the skin.
Inhalation:	Not a likely route of exposure. Irritating to respiratory system by inhalation.
Chronic toxicity	Unknown on product
Subchronic toxicity	Unknown on product
Specific effects	
Corrosivity:	Not corrosive
Sensitization:	May cause sensitization by skin contact.
Target organ effects:	Unknown on product
Mutagenic effects:	Unknown on product.
Reproductive effects:	Unknown on product.
Developmental effects:	Unknown on product.
Carcinogenic effects:	Unknown on product.

12. ECOLOGICAL INFORMATION

Ecotoxicity	
Ecotoxicity effects:	This product has no known eco-toxicological effects.
Aquatic toxicity effects:	This product has no known aquatic toxicological effects.
Mobility:	Unknown on product.
Persistence / degradability:	Unknown on product.
Bioaccumulation:	Unknown on product.
Degradation:	Unknown on product.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:	Waste disposal must be in accordance with appropriate US, Federal, State and International regulations..
Contaminated packaging:	None.
Methods for cleaning up:	Contain, absorb and transfer to disposable container. Dilute with plenty of water. Clean thoroughly.

14. TRANSPORT INFORMATION

DOT:	
DOT UN-No:	Not applicable
DOT shipping name:	Not regulated
Hazard class:	Not applicable
Subsidiary risk (hazard class):	Not applicable
Packing group:	Not applicable

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DOT reportable quantity (lbs): Not applicable

IMO/IMDG:

Hazard class: Not applicable
IMDG page: Not applicable
IMO-labels: Not applicable
Packing group: Not applicable
MFAG table No.: Not applicable
Proper shipping name: Not regulated
UN/Id No.: Not applicable

ADR/RID:

Hazard class/packing group: Not applicable
Item: Not applicable
ADR/RID-labels: Not applicable
UN/Id No.: Not applicable
Proper shipping name: Not applicable
TREM-card: Not applicable

IATA/ICAO:

Hazard class: Not applicable
Packing group: Not applicable
Proper shipping name: Not regulated
ID/UN No.: Not applicable
IATA - label: Not applicable
ERG #: Not applicable

TDG (Canada):

Status: Not applicable
Packing group: Not applicable

15. REGULATORY INFORMATION

Components	CAS Number	Weight %	EPCRA (SARA Title III) Section 313 Toxic Chemical -	EPCRA (SARA Title III) Section 302 Extremely Hazardous Substance -	CERCLA Hazardous Substances:	RCRA status:
Subtilisins (proteolytic enzymes)	9014-01-1	1-5	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Components	CAS Number	Weight %	ACGIH TLV (TWA - 8hr)	ACGIH TLV (STEL)	ACGIH TLV (Ceiling Limits)
Subtilisins (proteolytic enzymes)	9014-01-1	1-5	Not determined.	Not determined.	0.00006 mg/m ³ 100% pure crystalline enzyme

Components	CAS Number	Weight %	OSHA (TWA - 8hr)	OSHA (STEL)	OSHA (Ceiling Limits)
Subtilisins (proteolytic enzymes)	9014-01-1	1-5	Not determined.	0.00006 mg/m ³	Not determined.

SARA (311, 312) hazard class:

Immediate health: None
Delayed health: None
Fire: None
Sudden Release of Pressure Hazard: None
Reactivity: None

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Components	CAS Number	Weight %	New Jersey RTK List:	Pennsylvania RTK List:	Massachusetts RTK List:	Connecticut Hazardous Material List:	Michigan Critical List:
Subtilisins (proteolytic enzymes)	9014-01-1	1-5	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

TSCA inventory list: Listed under TSCA: Yes

WHMIS:

WHMIS trade secret: None
WHMIS hazard class: D2B Toxic Materials



Canada DSL inventory list: Listed on DSL: Yes

Notes:

1. SARA = Superfund Amendments and the Reauthorization Act.
2. CERCLA = Comprehensive Environmental Response, Compensations and Liability Act.
3. FIFRA = Federal Insecticide, Fungicide and Rodenticide Act
4. TSCA = Toxic Substance Control Act
5. WHMIS = Canadian Workplace Hazardous Materials Information System
6. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. OTHER INFORMATION

This data sheet contains changes from the previous version in section(s):
None

Additional advice: None

Literary Reference: None

MSDS format: North American Format - U.S. and Canada
This Material Safety Data Sheet was prepared in accordance with OSHA 29 CFR 1910.1200.

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End of Safety Data Sheet

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