

Material Safety Data Sheet

MSDS-008 Rev. D

Product code: ENZOL® Enzymatic Detergent
Issue date: 03/27/2003
Print date: 03/18/2003

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

Supplier:

Advanced Sterilization Products
 33 Technology Drive
 Irvine, CA 92618

Emergency telephone number: (800) 451-8346 or (760) 602-8700 (24 hours)
Product name: ENZOL® Enzymatic Detergent
Product code: ASPENZOL
Synonyms: CIDEZYME® Enzymatic Detergent
Trade name: Not applicable.
Formula #: None.
EPA registry #: None.
RTECS #: None.

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	1-5	Not Determined	Not Determined	60 ng/m ³	3B

3. HAZARDS IDENTIFICATION

Emergency overview: May cause sensitization by skin contact.
 Irritating to the eyes, skin, mucous membranes and upper respiratory tract.

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

Principle routes of exposure:

Oral: Ingestion of this material may cause oral thrush, nausea, vomiting, epigastric distress, diarrhea, headache, fatigue, dizziness, insomnia, mental confusion, and impairment.
Eye contact: Irritating to eyes.
Skin contact: Irritating to skin. May cause sensitization by skin contact.
Ingestion: Ingestion may cause irritation to mucous membranes. Nausea
Inhalation: Not a likely route of exposure

Physico-chemical properties: May cause irritation to the skin and eyes.

Hazard information:

Company name: ADVANCED STERILIZATION PRODUCTS
Product name: ENZOL® Enzymatic Detergent

Product code: ASPENZOL
CO# 07203-1

Target organ effects: Eyes, skin, lungs, respiratory system.
Reproductive effects: Unknown on product.
Mutagenic effects: Unknown on product.
Sensitization: May cause sensitization by skin contact.

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: Adverse effects are hypersensitivity.

Medical conditions aggravated by exposure: Adverse effects are hypersensitivity.

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 should cause skin irritation or sensitization, contact a physician immediately.

Protection of first-aiders: No information available.

Notes to physician: None.

5. FIRE-FIGHTING MEASURES

Flash point (°F): >200
Flash point (°C): >93 ° C
Autoignition temperature: Unknown on product.
Flammable limits in air - lower (%): Unknown on product.
Flammable limits in air - upper (%): Unknown on product.

NFPA rating: Health: 2 flammability: 1 reactivity: 0
HMIS/ NFPA rating and classification:



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.

Company name: ADVANCED STERILIZATION PRODUCTS
Product name: ENZOL® Enzymatic Detergent

Product code: ASPENZOL
CO# 07203-1

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

Hazardous combustion products: None.

Explosivity: None.

Explosion limits:
lower: None.
upper: None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Ensure adequate ventilation.
Avoid dust formation.
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.
Neutralize 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: Not applicable.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Ensure adequate ventilation especially in confined areas

Eye protection: Wear safety glasses with side-shields.

Hand protection: Wear impervious gloves.

Skin and body protection: Wear suitable gloves and eye/face protection.

Respiratory protection: Not applicable.

Other/general protection: None required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid
Physical state: Emulsion
Color: Violet
pH: 7.8-8.8
Odor: spearmint

Company name: ADVANCED STERILIZATION PRODUCTS
Product name: ENZOL® Enzymatic Detergent

Product code: ASPENZOL
CO# 07203-1

10. STABILITY AND REACTIVITY

Chemical stability:	Stable under recommended storage conditions.
Hazard polymerization:	Will not occur.
Hazardous decomposition products:	When exposed to fire, produces normal products of combustion.
Materials to avoid:	Unknown on product.
Conditions to avoid:	Temperatures above 40°C

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Local effects

Oral:	Ingestion of this material may cause oral thrush, nausea, vomiting, epigastric distress, diarrhea, headache, fatigue, dizziness, insomnia, mental confusion, and impairment.
Eye irritation	Irritating to the eyes.
Skin irritation:	Irritating to the skin.
Inhalation:	Irritating to respiratory system by inhalation.

Chronic toxicity

Oral:	Unknown on product.
Inhalation:	Inhalation of mist or vapor may be severely irritating to the nose , throat and lungs Inhalation of mist may cause sensitization
Dermal:	Repeated or prolonged exposure to the skin could cause irritation or sensitization.

Subchronic toxicity

Oral:	Unknown on product.
Dermal:	Repeated or prolonged exposure to the skin could cause irritation or sensitization.

Specific effects

Corrosivity:	Unknown on product.
Sensitization:	May cause sensitization by skin contact.
Target organ effects:	Eyes, skin, lungs, respiratory system.
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.

Company name: ADVANCED STERILIZATION PRODUCTS
Product name: ENZOL[®] Enzymatic Detergent

Product code: ASPENZOL
CO# 07203-1

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. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

Contaminated packaging: None.

Methods for cleaning up: Contain, absorb and transfer to disposable container.
Neutralise 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.
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: No data is available on the product itself.
Item: No data is available on the product itself.
ADR/RID-labels: No data is available on the product itself.
UN/Id No.: No data is available on the product itself.
Proper shipping name: No data is available on the product itself.
TREM-card: No data is available on the product itself.

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: No data is available on the product itself.
Packing group: No data is available on the product itself.

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CO# 07203-1

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

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

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CO# 07203-1

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**Company name:** ADVANCED STERILIZATION PRODUCTS**Product name:** ENZOL[®] Enzymatic Detergent**Product code:** ASPENZOL
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