



# Safety Data Sheet

## ENZYME SUPER CONCENTRATE SURGICAL INSTRUMENT DETERGENT

### Section 1. Identification

Product Identifier	ENZYME SUPER CONCENTRATE SURGICAL INSTRUMENT DETERGENT		
Synonyms	MDS88EZ25CM; MSD_SDS0148		
Manufacturer Stock Numbers	MDS88EZ25CM		
Recommended use	Super Concentrate Cleaning Agent		
Uses advised against	Use only as directed.		
Manufacturer Contact Address	Medline Industries, Inc. 3 Lakes Drive Northfield, IL, 60093 USA		
	Phone	Emergency Phone	Fax
	(800) 633-5463	(800) 424-9300 CHEMTREC	(847) 643-4436
	Website		
	<a href="http://www.Medline.com">www.Medline.com</a>		

### Section 2. Hazards Identification

Classification	SENSITIZATION - RESPIRATORY - Category 1 SERIOUS EYE DAMAGE /EYE IRRITATION - Category 2B SKIN CORROSION/IRRITATION - Category 2
Signal Word	Danger

Pictogram



Hazard Statements

Causes eye irritation  
Causes skin irritation  
May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary Statements

Response

Get medical advice/attention if you feel unwell.  
If experiencing respiratory symptoms: Call a poison center/doctor/ ...  
If eye irritation persists: Get medical advice/attention.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
If on skin: Wash with plenty of water.  
If skin irritation occurs: Get medical advice/attention.  
In case of fire: Use CO<sub>2</sub>, dry chemical or foam to extinguish.  
Take off contaminated clothing and wash it before reuse.

Prevention

[In case of inadequate ventilation] wear respiratory protection.  
Avoid breathing dust/fume/gas/mist/ vapors/spray.  
Obtain special instructions before use.  
Wash ...thoroughly after handling.  
Wear protective gloves, protective clothing, eye protection and face protection.

Storage

Do not store above 30°C/86°F.

Disposal

Store in a dry place. Store in a well-ventilated place.

Dispose according to all local, state and federal regulations.

Ingredients of unknown toxicity

N.D.

Hazards not Otherwise Classified

Causes mild skin irritation.

Environmental Hazards:

See section 12.

Other information:

Toxic to aquatic life.

### Section 3. Ingredients

CAS	Ingredient Name	Weight %
9014-01-1	Subtilisin	Proprietary %
102-71-6	Ethanol, 2,2',2''-nitrilotris-	Proprietary %
10043-35-3	Boric acid (H <sub>3</sub> BO <sub>3</sub> )	Proprietary %
56-81-5	1,2,3-Propanetriol	Proprietary %

\* The exact percentage is a trade secret.

## Section 4. First-Aid Measures

Eye Contact:	Immediately flush with plenty of water. Remove any contact lenses, continue flushing for several minutes and call physician immediately.
Skin Contact:	Wash off immediately with plenty of water for several minutes. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: get medical advice/attention.
Inhalation:	Move to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to a person who is unconscious. Call a physician or Poison Control Center.
Symptoms:	Causes skin irritation. Inhalation may cause respiratory sensitization. Causes eye irritation.
Note to Physician:	Treat symptomatically

## Section 5. Fire Fighting Measures

Suitable Extinguishing Media	In case of fire, use Foam, Dry chemical powder, Carbon dioxide (CO2).
Unsuitable Extinguishing Media	N.D.
Specific hazards arising from the chemical:	Not flammable.
Protective Equipment and Precautions for Firefighters:	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, Protective Equipment and Emergency Procedures:	Personal Precautions: Use personal protective equipment as required.  For Emergency Responders: Restrict access to spill area. Ventilate the area.
Methods and Materials for Containment and Cleaning up:	Environmental Precautions: Prevent entry into waterways, sewers, basements or confined areas.  Methods for Containment: Prevent further leakage or spillage if safe to do so.  Methods for Cleaning up: Flush small spills with water. Dike to collect large liquid spills.

## Section 7. Handling and Storage

Precautions for Safe Handling:	Advice on Safe Handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling.
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Use only in well-ventilated areas. Do not breathe dust/fumes/gas/mist/vapors /spray. Keep out of the reach of children and pets.

Conditions for Safe Storage, Including any Incompatibilities:

Storage Conditions:  
Store in a closed container in a dry, cool and well-ventilated place away from incompatible materials. Do not store above 86°F (30°C).

Incompatible Materials:  
Avoid contact with strong acids, oxidizers and alkalis.

## Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV	OSHA PEL	STEL
	Subtilisin	Ceiling:  0.00006 mg/m3	STEL: 0.00006 mg/m3 60 min.	NIOSH IDLH: 0.00006 mg/m3 60 min.
	Ethanol, 2,2',2''-nitrilotris-	TWA: 5 mg/m3	N/A	N/A
	Boric acid (H3BO3)	N/A	N/A	N/A
	1,2,3-Propanetriol (mist)	10 mg/m3	Total dust: 15 mg/m3 TWA: 10 mg/m3   Respirable fraction: 5 mg/m3 TWA: 5mg/m3	N/A

Personal Protective Equipment

Goggles, Gloves

Exposure Guidelines:

See above occupational exposure limits.

Appropriate Engineering Controls:

Eyewash stations.

Individual protection measures, such as personal protective equipment:

Eye/Face Protection:

Wear goggles, chemical safety glasses or a face protection shield.

Skin and Body Protection

Chemical resistant, non-latex and impermeable gloves. Wear appropriate clothing to prevent prolonged skin contact.

Respiratory Protection:

Under normal conditions a respirator is not normally required. A mask or respirator may be used if vapor concentration is high.

General Hygiene Considerations:

Handle in accordance with good industrial hygiene and safety practices.

## Section 9. Physical and Chemical Properties

Physical State	Liquid
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Color	Yellow Clear Liquid
Odor	Fresh
Odor Threshold	N.D.
Solubility	Completely solubility
Partition coefficient Water/n-octanol	N.D.
VOC%	N/A
Viscosity	N.D.
Specific Gravity	1.05 (60°F/15.5°C)
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	Not flammable
FP Method	N.D.
pH	7.8-8.3 (77°F/25°C)
Melting Point	<17.6°F/<-8°C
Boiling Point	217°F/102.7°C
Boiling Range	N.D.
LEL	N/A
UEL	N/A
Evaporation Rate	<1
Flammability	N/A Liquid
Decomposition Temperature	N.D.
Auto-ignition Temperature	Not flammable
Vapor Pressure	N.D.
Vapor Density	>1

Explosive Properties: Not explosive.

## Section 10. Stability and Reactivity

Reactivity: Not reactive under normal conditions.

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: None under normal processing. Hazardous polymerization will not occur.

Conditions to avoid: None under normal processing.

Incompatibility (Materials to Avoid) (Materials to Avoid) Avoid contact with strong acids, oxidizers and alkalis.

Hazardous Decomposition or Byproducts: None known.

## Section 11. Toxicological Information

Route(s) of Exposure: Eye Contact. Skin Contact. Inhalation. Ingestion.

Information on likely routes of exposure: Eye contact:  
Causes eye irritation.

Skin contact:  
Causes mild skin irritation.

Inhalation:  
Avoid breathing vapors or mists.

Ingestion:  
Do not taste or swallow.

Component Information: Chemical Name:  
Subtilisin (Protease) CAS-No. 9014-01-1  
Oral LD50: 1800 mg/kg (Rat)  
Dermal LD50: N.A.  
Inhalation LC50: N.A.

Chemical Name:  
Glycerol CAS-No. 56-81-5  
Oral LD50: 12600 mg/kg (Rat)  
Dermal LD50: > 10000 mg/kg (Rabbit)  
Inhalation LC50: >570 mg.m3

Chemical Name:  
Boric Acid CAS-No. 10043-35-3  
Oral LD50: 2660 mg/kg (Rat)  
Dermal LD50: 2000 mg/kg (Rabbit)  
Inhalation LC50: > 0.16 mg/L (Rat) 4 hr.

Chemical Name:  
Triethanolamine CAS-No. 102-71-6  
Oral LD50: 5000 mg/kg (Rat)  
Dermal LD50: 2000 mg/kg (Rabbit)  
Inhalation LC50: N.A.

Delayed and immediate effects as well as chronic effects from short & long term exposure: Carcinogenicity:  
The product as a whole has not been tested.

Chemical Name:  
Triethanolamine CAS-No. 102-71-6  
ACGIH: N.A.  
IARC: Group 3  
NTP: N.A.  
OSHA: N.A.

Chemical Name:  
Boric Acid CAS-No. 10043-35-3  
ACGIH: A4  
IARC: N.A.  
NTP: N.A.  
OSHA: N.A.

ACGIH (The American Conference of Governmental Industrial Hygienists)  
A4 - Not Classifiable as a Human Carcinogen  
IARC (International Agency for Research on Cancer)

Group 3 - Not Carcinogenic to Humans.

Sensitization:

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

Numerical Measures of  
Toxicity:

N.D.

## Section 12. Ecological Information

Ecotoxicity:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name:

Boric Acid CAS-No. 10043-35-3

Algae/aquatic plants: No Information

Fish: Known Toxin

Toxicity to microorganisms: No Information

Crustacea: Known Toxin

Chemical Name:

Glycerol CAS-No. 56-81-5

Algae/aquatic plants: No Information

Fish: Known Toxin

Toxicity to microorganisms: No Information

Crustacea: Known Toxin

Chemical Name:

Triethanolamine CAS-No. 102-71-6

Algae/aquatic plants: Known Toxin

Fish: Known Toxin

Toxicity to microorganisms: No Information

Crustacea: Known Toxin

Persistence and  
degradability:

N.D.

Bioaccumulation:

N.D.

Mobility:

Chemical Name:

Boric Acid CAS-No. 10043-35-3

Partition Coefficient: 0.175

Chemical Name:

Triethanolamine CAS-No. 102-71-6

Partition Coefficient: -1.00

Other adverse effects:

N.D.

## Section 13. Disposal

Waste Treatment Methods: Disposal of Wastes:

Dispose according to all local, state and federal regulations.

Contaminated Packaging:

Dispose according to all local, state and federal regulations.

Chemical Name:  
Boric Acid CAS-No. 10043-35-3  
California Hazardous Waste Status: Toxic

Chemical Name:  
Borax CAS-No. 1303-96-4  
California Hazardous Waste Status: Toxic

## Section 14. Transport Information

UN Number	N/A
UN Proper Shipping Name	Not Regulated
DOT Classification	Not Regulated
Packing Group	Not Regulated

## Section 15. Regulatory Information

SARA 311/312:	Refer to Section 2 of the SDS.
SARA 302:	N.A.
SARA 304:	N.A.
SARA 313:	N.A.
TSCA:	All components are listed or exempt.
CERCLA Hazardous Substance List:	N.A.
Clean Air Act (CAA) Section 112, 112 (r):	N.A.
New Jersey Right to Know Components:	Triethanolamine Glycerin
Pennsylvania Right to Know Components:	Triethanolamine 1,2,3-PROPANETRIOL.
Rhode Island Right to Know Components:	Triethanolamine glycerol.

## Section 16. Other Information

Revision Date	11/21/2017
Legend	N.A. - Not Applicable N.E. - Not Established N.D. - Not Determined
HMIS (U.S.A.): Health Hazard	N.D.
HMIS (U.S.A.): Flammability	N.D.

HMIS (U.S.A.): Physical Hazard	N.D.
HMIS (U.S.A.): Personal Protection	N.D.
National Fire Protection Association (U.S.A): Health Hazard	1
National Fire Protection Association (U.S.A): Flammability	0
National Fire Protection Association (U.S.A): Instability Hazard	0
National Fire Protection Association (U.S.A): Special Hazard	N.D.

Additional Information

The information contained herein is furnished without warranty or legal responsibility of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees