



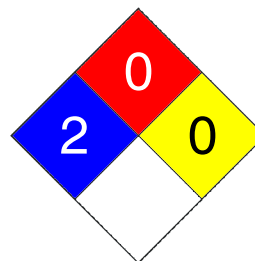
# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** Enzymax Earth Powder  
**CAS #** Mixture  
**Product use** Detergent  
**Manufacturer** Hu-Friedy Mfg. Co., Inc.  
3232 N. Rockwell  
Chicago, IL 60618-5982 US  
Phone: 773.975.6100  
Fax: 773.868.3599  
Emergency Phone: 773.975.6100

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	* 2
Flammability	0
Physical Hazard	0
Personal Protection	B



## 2. Hazards Identification

**Emergency overview** WARNING  
EYE AND SKIN IRRITANT.  
May cause sensitization by inhalation.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.

**Eyes** Causes irritation.

**Skin** May cause irritation.

**Inhalation** Dusts of this product may cause irritation of the nose, throat, and respiratory tract.

**Ingestion** May cause stomach distress, nausea or vomiting.

**Target organs** Eyes. Skin. Respiratory system.

**Chronic effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis.

**Signs and symptoms** Symptoms may include redness, edema, drying, defatting and cracking of the skin.  
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Carbonic acid, sodium salt (2:3)	533-96-0	60 - 100
Sodium dodecylbenzenesulfonate	25155-30-0	3 - 7
Sodium metasilicate	6834-92-0	1 - 5
Subtilisin carlsburg	9014-01-1	0.1 - 1

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention if irritation develops or persists.

**Skin contact** Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.

**Inhalation** If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

<b>Ingestion</b>	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
<b>Notes to physician</b>	Symptoms may be delayed.
<b>General advice</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

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## 5. Fire Fighting Measures

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<b>Flammable properties</b>	Not flammable by WHMIS/OSHA criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Dry chemical. Foam. Carbon dioxide. Fog.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Oxides of sulphur.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

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## 6. Accidental Release Measures

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<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Methods for containment</b>	Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice.

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## 7. Handling and Storage

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<b>Handling</b>	Use good industrial hygiene practices in handling this material.
<b>Storage</b>	Keep out of reach of children. Store in a closed container away from incompatible materials.

## 8. Exposure Controls / Personal Protection

### Exposure limits

Ingredient(s)	Exposure Limits
Carbonic acid, sodium salt (2:3)	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Sodium dodecylbenzenesulfonate	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Sodium metasilicate	<b>ACGIH-TLV</b> TWA: 10 mg/m3 <b>OSHA-PEL</b> Not established
Subtilisin carlsburg	<b>ACGIH-TLV</b> Ceiling: 0.0001 mg/m3 <b>OSHA-PEL</b> Not established

### Engineering controls

General ventilation normally adequate.

### Personal protective equipment

#### Eye / face protection

Wear safety glasses with side shields.

#### Hand protection

Rubber gloves. Confirm with a reputable supplier first.

#### Skin and body protection

As required by employer code.

#### Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

#### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

## 9. Physical and Chemical Properties

Appearance	Powder
Color	White with beige specs
Form	Solid.
Odor	Lemon.
Odor threshold	Not available
Physical state	Solid
pH	10 (diluted)
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	Not available
Pour point	Not available
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not applicable
Flammability limits in air, upper, % by volume	Not applicable
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available

<b>Solubility (H2O)</b>	Complete
<b>Auto-ignition temperature</b>	Not available
<b>Percent volatile</b>	Not available

## 10. Stability and Reactivity

<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals.
<b>Incompatible materials</b>	Acids. Oxidizers.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon. Oxides of sulphur.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Component analysis - LC50

Ingredient(s)	LC50
Carbonic acid, sodium salt (2:3)	Not available
Sodium dodecylbenzenesulfonate	Not available
Sodium metasilicate	Not available
Subtilisin carlsburg	Not available

### Component analysis - Oral LD50

Ingredient(s)	LD50
Carbonic acid, sodium salt (2:3)	5600 mg/kg rat
Sodium dodecylbenzenesulfonate	438 mg/kg rat
Sodium metasilicate	1153 mg/kg rat
Subtilisin carlsburg	3700 mg/kg rat

### Effects of acute exposure

<b>Eye</b>	Causes irritation.
<b>Skin</b>	May cause irritation.
<b>Inhalation</b>	Dusts of this product may cause irritation of the nose, throat, and respiratory tract.
<b>Ingestion</b>	May cause stomach distress, nausea or vomiting.
<b>Sensitization</b>	Contains a potential respiratory tract sensitizer.
<b>Chronic effects</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Carcinogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Mutagenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Reproductive effects</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Teratogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Synergistic Materials</b>	Not available

## 12. Ecological Information

<b>Ecotoxicity</b>	Components of this product have been identified as having potential environmental concerns.
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### Ecotoxicity - Freshwater Fish Species Data

Sodium dodecylbenzenesulfonate	25155-30-0	96 Hr LC50 Oncorhynchus mykiss: 10.8 mg/L [static]
Sodium metasilicate	6834-92-0	96 Hr LC50 Brachydanio rerio: 210 mg/L [semi-static]; 96 Hr LC50 Brachydanio rerio: 210 mg/L

### Ecotoxicity - Water Flea Data

Sodium metasilicate	6834-92-0	96 Hr EC50 Daphnia magna: 216 mg/L
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<b>Environmental effects</b>	Not available
<b>Aquatic toxicity</b>	Not available
<b>Persistence / degradability</b>	Not available
<b>Bioaccumulation / accumulation</b>	Not available
<b>Partition coefficient</b>	Not available

<b>Mobility in environmental media</b>	Not available
<b>Chemical fate information</b>	Not available
<b>Other adverse effects</b>	Not available

### 13. Disposal Considerations

<b>Waste codes</b>	Not available
<b>Disposal instructions</b>	Review federal, state/provincial, and local government requirements prior to disposal.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

### 14. Transport Information

#### U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

#### Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

### 15. Regulatory Information

**Canadian federal regulations** 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.

#### Canada - WHMIS - Ingredient Disclosure List

Sodium dodecylbenzenesulfonate	25155-30-0	1 %
Sodium metasilicate	6834-92-0	1 %

#### US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

#### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Sodium dodecylbenzenesulfonate	25155-30-0	1000 Lb final RQ; 454 kg final RQ
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#### U.S. - CWA (Clean Water Act) - Hazardous Substances

Sodium dodecylbenzenesulfonate	25155-30-0	Present
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#### Occupational Safety and Health Administration (OSHA)

**29 CFR 1910.1200 hazardous chemical** Yes

#### CERCLA (Superfund) reportable quantity

Sodium dodecylbenzene sulfonate: 1000.0000

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** Yes

**Clean Air Act (CAA)** Not available

**Clean Water Act (CWA)** Not available

**WHMIS status** Controlled

**WHMIS classification** Class D - Division 2A, 2B

**WHMIS labeling**



**State regulations**

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances**

Sodium dodecylbenzenesulfonate	25155-30-0	Present (exempt when in solution)
Subtilisin carlsburg	9014-01-1	Present

**U.S. - Louisiana - Reportable Quantity List for Pollutants**

Sodium dodecylbenzenesulfonate	25155-30-0	1000 Lb final RQ; 454 kg final RQ
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**U.S. - Massachusetts - Right To Know List**

Sodium dodecylbenzenesulfonate	25155-30-0	Present
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**U.S. - New Jersey - Right to Know Hazardous Substance List**

Sodium dodecylbenzenesulfonate	25155-30-0	sn 1698
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**U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances**

Sodium dodecylbenzenesulfonate	25155-30-0	1000 Lb RQ (air); 100 lb RQ (land/water)
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**U.S. - Pennsylvania - RTK (Right to Know) List**

Sodium dodecylbenzenesulfonate	25155-30-0	Environmental hazard
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**Inventory name**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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**16. Other Information**

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**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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**Other information**

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.