



# SAFETY DATA SHEET

## 1. Product and Company Identification

Product identifier	Enzymax Spray Gel
Other means of identification	IMS-1229SP IMS-1229
Recommended use	Cleaner
Recommended restrictions	None known.
Manufacturer	Hu-Friedy Mfg. Co., LLC 3232 N. Rockwell Chicago, IL 60618-5982 US Phone: 773.975.6100 Fax: 773.868.3599 Emergency Phone: 1-800-535-5053 Outside US: 001-352-323-3500

## 2. Hazards Identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	Not applicable.

## 3. Composition/Information on Ingredients

### Mixture

Chemical name	Common name and synonyms	CAS number	%
1,2-Propanediol		57-55-6	5 - 10

Composition comments	None by OSHA criteria.
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## 4. First Aid Measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Skin contact	If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.
Eye contact	In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
Ingestion	If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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## 5. Fire Fighting Measures

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<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon.
<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, protective equipment and emergency procedures</b>	Keep out of low areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Stop the flow of material, if this is without risk.  Large Spills: Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Do not discharge into lakes, streams, ponds or public waters.

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## 7. Handling and Storage

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<b>Precautions for safe handling</b>	Avoid contact with eyes and skin. Avoid breathing mists or vapors. Do not swallow. Handle and open container with care. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Remove and wash contaminated clothing before reuse.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

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## 8. Exposure Controls/Personal Protection

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### Occupational exposure limits

#### US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
1,2-Propanediol (CAS 57-55-6)	TWA	10 mg/m3	Aerosol.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Exposure guidelines</b>	See above
<b>Appropriate engineering controls</b>	Ensure adequate ventilation.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Not normally needed.
<b>Skin protection</b>	
<b>Hand protection</b>	Not normally needed.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

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**9. Physical and Chemical Properties**

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<b>Appearance</b>	Viscous
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Light yellow
<b>Odor</b>	Fresh
<b>Odor threshold</b>	Not available.
<b>pH</b>	8.5
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Pour point</b>	Not available.
<b>Specific gravity</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Flash point</b>	> 200.0 °F (> 93.3 °C) Tag Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1.01
<b>Solubility(ies)</b>	Complete
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

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**10. Stability and Reactivity**

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<b>Reactivity</b>	This product may react with oxidizing agents.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Contact with incompatible materials. Heat.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon.

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**11. Toxicological Information**

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<b>Routes of exposure</b>	Eye. Skin contact. Inhalation. Ingestion.
<b>Information on likely routes of exposure</b>	
<b>Ingestion</b>	May be harmful if swallowed.
<b>Inhalation</b>	May cause irritation to the respiratory system.
<b>Skin contact</b>	May be irritating to the skin.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.

**Symptoms related to the physical, chemical and toxicological characteristics**

Symptoms may include stinging, tearing, redness, swelling of the eyes, and blurred vision.  
Symptoms may include stomach distress, nausea or vomiting.  
Symptoms may include redness, drying, defatting and cracking of the skin.

**Information on toxicological effects****Acute toxicity**

Components	Species	Test Results
1,2-Propanediol (CAS 57-55-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	20800 mg/kg
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Dog	19000 mg/kg
	Guinea pig	184000 mg/kg
	Mouse	23900 mg/kg
	Rabbit	14800 mg/kg
	Rat	20000 mg/kg
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.	
<b>Exposure minutes</b>	Not available.	
<b>Erythema value</b>	Not available.	
<b>Oedema value</b>	Not available.	
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.	
<b>Corneal opacity value</b>	Not available.	
<b>Iris lesion value</b>	Not available.	
<b>Conjunctival reddening value</b>	Not available.	
<b>Conjunctival oedema value</b>	Not available.	
<b>Recover days</b>	Not available.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not classified.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Germ cell mutagenicity</b>	Not classified.	
<b>Mutagenicity</b>	Not classified.	
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Teratogenicity</b>	Not classified.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not classified.	
<b>Chronic effects</b>	Not classified.	
<b>Further information</b>	This product has no known adverse effect on human health.	
<b>Name of Toxicologically Synergistic Products</b>	Not available.	

**12. Ecological Information**

<b>Ecotoxicity</b>	See below		
Components	Species		Test Results
1,2-Propanediol (CAS 57-55-6)			
Crustacea	EC50	Daphnia	10000 mg/L, 48 Hours

Components	Species		Test Results
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	710 mg/l, 96 hours
<b>Persistence and degradability</b>	No data is available on the degradability of this product.		
<b>Bioaccumulative potential</b>	No data available.		
<b>Mobility in soil</b>	No data available.		
<b>Mobility in general</b>	Not available.		
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

### 13. Disposal Considerations

<b>Disposal instructions</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 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

<b>Canadian federal regulations</b>	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.
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#### Canada WHMIS Ingredient Disclosure: Threshold limits

1,2-Propanediol (CAS 57-55-6) 1 %

<b>WHMIS status</b>	Not Controlled
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#### US federal regulations

##### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

##### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

##### US CAA Section 111 Volatile Organic Compounds: Listed substance

1,2-Propanediol (CAS 57-55-6) Listed.

##### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

##### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

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

<b>Hazard categories</b>	Immediate Hazard - No
	Delayed Hazard - No
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**  
Not regulated.

**Other federal regulations**

**Safe Drinking Water Act (SDWA)** Not regulated.

**Food and Drug Administration (FDA)** Not regulated.

**US state regulations**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

**US - Minnesota Haz Subs: Listed substance**

1,2-Propanediol (CAS 57-55-6) Listed.

**US - New Jersey RTK - Substances: Listed substance**

1,2-Propanediol (CAS 57-55-6) Listed.

**US - Texas Effects Screening Levels: Listed substance**

1,2-Propanediol (CAS 57-55-6) Listed.

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

1,2-Propanediol (CAS 57-55-6) Listed.

**US. Rhode Island RTK**

Not regulated.

**Inventory status**

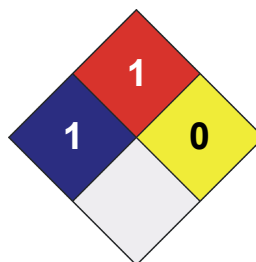
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

**16. Other Information**

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 1
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. 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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**Further information** For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

**Prepared by** Dell Tech Laboratories, Ltd. Phone: (519) 858-5021

**Other information** This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).  
This SDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.