

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	ENZ-OUT
CAS#	Mixture
Product Use	Enzyme spot remover for carpet and fabrics
Manufacturer	CFR, A Division of Tacony Corporation 3101 Wichita Court Fort Worth, TX 76140-1710
Emergency Telephone Number	1-800-270-5201
Company Contact	1-800-533-2557 or website www.cfrcorp.com

HMIS LEGEND

Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	1
Flammability	0
Reactivity	0
Personal Protection	B

2. Hazards Identification

Emergency Overview	Warning: Eye and skin irritant
Potential short term effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	May cause irritation.
Skin	Contact with skin may cause irritation.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Target organs	Eyes, Skin
Chronic effects	Prolonged exposure can cause drying, defatting, or dermatitis.
Signs and symptoms	Symptoms may include redness, edema, drying, defatting and cracking of skin. Symptoms of over exposure may be headache, dizziness, tiredness, nausea and vomiting

3. Hazardous Ingredients

The criteria for listing components in this section are: Carcinogens are listed when present at 0.1% or greater; components which are otherwise hazardous according to OSHA are listed when present at 1.0% or greater. Non hazardous components are not listed. This is not a composition disclosure.

Hazardous Components	CAS#	% (optional)
Alkoxylated linear alcohols	52232-09-04, 37311-02-7, 37251-67-5	< 5%
Enz-Out contains Alpha Amylase and Protease Enzymes. Not considered hazardous per 29CFR 1910-1200.		

4. First Aid Measures

First Aid Procedures	
Eye Contact	Flush with cool running water for 15 minutes. If irritation persists, get medical attention.
Skin Contact	Flush with cool water, Wash with soap and water, If irritation persists, get medical Attention.
Inhalation	If symptoms develop, move to fresh air. If symptoms persist, get medical attention
Ingestion	Rinse mouth with water. Drink one or two glasses of water. Do not induce vomiting. Obtain medical attention. Never give anything by mouth to an unconscious person.
Notes to Physician	Symptoms may be delayed.
General advice	Seek medical attention if feeling unwell. Show the MSDS to the physician in attendance.

5. Fire-fighting Measures

Flammable properties	Not flammable
Extinguishing media	Treat for surrounding material.
Protection of firefighters	Firefighters should wear protective clothing including self contained breathing apparatus
Hazardous combustion products	May include and not limited to oxides of carbon.
Unusual Fire, Explosion hazards	None known.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personal away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled containers unless wearing protective Clothing. Stay upwind of spills or leaks.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers.
Methods for cleaning up	Before attempting clean up refer to hazard data given above. Small spills may be absorbed with non reactive absorbent and placed in suitable, covered, labeled containers. Prevent large spills from entering sewers or water ways. Large spills: wet down with water and dike for later disposal. After removal, flush thoroughly with water. Contact emergency personnel or supplier for advice. Never return spill to original container for reuse

7. Handling and Storage

Handling	Use good industrial hygiene practices when handling this material
Storage	Keep out of reach of children. Keep from freezing, store in a cool dry place away from incompatible materials.

8. Exposure Controls and Personal Protection

Exposure limits		
Ingredients	OSHA PEL	ACGIH TLV
Alkoxylated linear alcohols	Not established	Not established
Engineering controls	General ventilation normally adequate	
Personal protective equipment		
Eye/Face protection	Wear safety glasses with side shields.	
Hand protection	Rubber or nitrile gloves.	
Skin and body	As required by employer code.	
Respiratory protection	Use a NIOSH approved respirator when exposure guidelines are exceeded.	
General hygiene considerations	Handle in accordance with good industrial hygiene practices. Do not eat or drink when using product. Wash hands well before breaks and immediately after handling the product.	

9. Physical and Chemical Properties

Appearance/form	Clear liquid
Color	Light tan to colorless
Odor	Natural
pH	7.0-8.0
Boiling point	> 212° F.
Specific gravity	1.02-1.05
Evaporation rate	Not Available
Vapor pressure	Not Available
Vapor density	Not Available
Flash point	None
Solubility in water	Complete
VOC	< 1%
% Volatile	Approx. 95%

10. Stability and Reactivity

Chemical Stability	Stable under normal storage conditions.
Conditions to avoid	Do not mix with other chemicals. High temperatures degrade enzymes.
Incompatible materials	Acids and oxidizers.
Hazardous decomposition products	May include but not limited to oxides of carbon.
Hazardous polymerization	Will not occur

11. Toxicological Information

Ingredients	LC50
Alkoxylated linear alcohols	Not available
Ingredients	LD50
Alkoxylated linear alcohols	3000 mg/kg rat
Effects of acute exposure	
Eye	May cause irritation
Skin	May cause irritation.
Inhalation	May cause respiratory tract irritation
Ingestion	May cause stomach distress, nausea, or vomiting.
Sensitization	Contains potential respiratory tract sensitizers.
Chronic effects	Non hazardous.
Carcinogenicity	Does not contain ingredients considered carcinogenic by NTP, IARC, or OSHA.
Mutagenicity	Non hazardous.
Reproductive effects	Non hazardous.
Teratogenicity	Non hazardous.

12. Ecological Information

Eco-toxicity	Components of this product have been identified as having potential environmental concerns.
Eco-toxicity-Fresh water Algae data	
1,2-Propylene glycol 57-55-6	96 Hr EC50 Selenastrum capricornutum: 19000 mg/L
Eco-toxicity-Freshwater Fish Species data	
1,2-Propylene glycol 57-55-6	96 Hr LC50 Oncorhynchus mykiss: 51600 mg/L (static) 96 Hr LC50 Pimephales promelas: 51400 mg/L (static)
Eco-toxicity-Microtox data	
1,2-Propylene glycol 57-55-6	30 min EC50 Photobacterium phosphoreum: 710 mg/L
Eco-toxicity-Water flea data	
1,2-Propylene glycol 57-55-6	48 Hr EC50 water flea: 10000 mg/L
Environmental effects	Not Available
Aquatic toxicity	Not Available
Persistence and Degradability	Not Available
Bioaccumulation/accumulation	Not Available
Partition coefficient	Not Available
Mobility in environmental media	Not Available
Chemical fate information	Not Available
Other adverse effects	Not Available

13. Disposal Considerations

Waste codes	Not Available
Disposal instructions	Dispose in accordance with local, state, and federal regulations
Wastes from residues/unused Product	Containerize. Rinse area with water. Keep out of storm sewer/waterways.
Contaminated packaging	Dispose in accordance with all applicable regulations.

14. Transport Information

Basic shipping requirements:	Not DOT regulated
Proper shipping name	
Hazard class	
UN number	
Packing group	
Special provisions	
Packaging exceptions	

15. Regulatory Information

U.S federal regulations	This product has been classified in accordance with the Occupational Safety and Health Administration hazard criteria and the MSDS contains all of the information required by OSHA.	
HMIS classification	Irritant	
Inventory Status	Inventory Name	On Inventory (Yes/No)*
Countries		
U.S.	Chemical Inventory List	Yes
Canada	Domestic substances list	Yes
A "Yes" indicates that all of the components of this product comply with the inventory requirements administered by the governing country(s) listed.		

16. Other Information

Disclaimer

To the best of our knowledge, the information included herein is accurate. However, neither the above named supplier nor any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material is the responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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