

SAFETY DATA SHEET

SECTION 1 MATERIAL AND MANUFACTURER IDENTIFICATION

PRODUCT

Product Identifier: Liquid Enzyme
Intended Product Use: Pre-Spray Spotter and Booster
*Manufacturer Identification Code:*MX-LE-01

MANUFACTURER

Jon-Don
400 Medinah Road
(630) 893-4747

Emergency Contact
INFOTRAC 1-800-535-5053
Account number 76144
Please reference name and manufacturers identification number

SECTION 2 HAZARD(S) IDENTIFICATION

GHS Classification

Acute Oral Toxicity (Category 5)
Acute Dermal Toxicity (Category 5)
Serious Eye Damage/Eye Irritation (Category 2A)
Acute Inhalation Toxicity (Category 5)

Routes of Exposure: Eye contact, skin contact, inhalation, and ingestion.

Inhalation: Inhalation of mist or vapor may cause severe irritation of the respiratory tract. Overexposure may result in coughing, choking or shortness of breath.

Eye Contact: Vapors/mist may irritate eyes. Irritation is characterized by redness, itching, or watering of eyes. Direct or prolonged contact with eyes will be painful and irritating; seek immediate medical attention for prolonged irritation.

Skin Contact: Repeated exposure may cause skin irritation, inflammation, drying, and/or chapping.

Ingestion: If swallowed may cause GI irritation with abdominal pain, nausea, vomiting, diarrhea, violent colic, and possible gastric hemorrhaging. Do not induce vomiting, seek immediate medical attention.

Carcinogenic Potential: Not established

Acute Effects: This product is considered to be a potential irritant. This product should not be used for any other purpose than the intended use in section 1.

Chronic Effects: Not established.



Health hazard	2
Flammability hazard	0
Reactivity hazard	0
Other hazard	

Signal word: **WARNING**

Hazard statement(s): **H303: May be harmful if swallowed;**
H313: May be harmful in contact with skin;
H320: Causes serious eye irritation;
H333: May be harmful if inhaled.

SECTION 3	COMPOSITON/INFORMATION ON INGREDIENTS
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COMPONENT	CAS #	CONCENTRATIONS
1. D-Limonene	94266-47-4	1-10%
2. Glycol Ether EB	111-76-2	1-10%
3. Van Wet Acid 98	not established	1-10%
4. Sodium Metasilicate	6834-92-0	1-10%
5. Surfactant Blend	not established	5-20%
6. STPP	7758-29-4	1-10%

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SECTION 4	FIRST-AID MEASURES
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Inhalation: Remove from further exposure to fresh air. If respiratory irritation, dizziness, or nausea occurs seek immediate medical attention. If breathing stops, have trained person administer oxygen with a resuscitation mouth cover. Seek immediate medical attention.

Eye Contact: Flush eyes with a directed stream of water for 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes immediately after exposure is essential to achieve maximum effectiveness and minimize potential irritation. If irritation persists, seek immediate medical attention.

Skin Contact: Wash contact areas with soap and water. Launder exposed clothing before reuse.

Ingestion: If swallowed, do not induce vomiting. Seek immediate medical attention.

SECTION 5	FIRE-FIGHTING MEASURES
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FLAMMABILITY PROPERTIES

Flashpoint: Non-flammable nor combustible

Flammable Limits: Not Available

Auto ignition Temperature: Not Available

FIREFIGHTING PROCEDURES

General Hazard: During a fire smoke may contain the original material in addition to toxic and or irritating compounds. Avoid heat sparks or open flame. May omit oxides of sulfur and hydrogen sulfide.

Firefighting Instructions: Evacuate all unnecessary personnel. Combustible mixture; keep away from heat, sparks and open flame. Use dry chemical or CO₂. Use water or foam to cool surrounding containers. Direct water stream may spread the fire.

Firefighting Equipment: Firefighters should wear NIOSH/MSHA approved self-contained, positive pressure breathing apparatus and full protective clothing.

Hazardous Combustion Products: Hazardous combustion products may include but limited to: CO, CO₂.

Unusual Fire and Explosion Hazards: No known unusual fire/explosion hazards. Keep away from strong oxidizing and acidic agents.

SECTION 6	ACCIDENTAL RELEASE MEASURES
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PERSONAL PRECAUTIONS

Persons performing the cleanup should wear personal protective equipment sufficient to keep material away from skin. Avoid direct contact with material. See section 4 for First-Aid Advice. See section 5 for Firefighting Advice.

PROTECTIVE MEASURES

To minimize exposure to all chemicals, including this product, use good industrial hygiene and common sense. Use only in well ventilated area. If necessary, use exhaust ventilation to insure adequate ventilation. Insure that water is readily available and that you are prepared to properly wash out your eyes should the need arise. (See section 4 for more advice). Wear NIOSH/MSHA approved organic respirator when ventilation is not adequate or when the sufficiency of ventilation to maintain concentrations below exposure limits is in question. Wear chemical safety goggles to protect against splashes or contact with eyes. See OSHA 29 CFR 1910.33

CLEAN-UP PROCEDURES

Small Spills: Wipe up or mop to dispose of spill in DOT approved waste container.

Large Spills: Contain by diking with soil or other non-combustible absorbent material, and dispose into DOT approved waste container. If possible complete clean up on a dry basis. Comply with all applicable governmental regulations on spill reporting, handling and disposal of waste. Contain all spills or leaks to prevent discharge into the environment. Responsibility of all spills or releases reported to the appropriate local, state and federal agencies falls upon the user.

SECTION 7	HANDLING AND STORAGE
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HANDLING

This product is professional strength product to be used by professionals only. Avoid breathing vapors/mist of this product. Always keep container tightly closed and properly labels. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Impervious boots/shoes covering should be used if material is anticipated to contact feet. As with all chemicals, practice good industrial hygiene when handling this product. Always work in a well-ventilated area and avoid inhalation of product vapor or mist. Do not ingest.

The manufacturer and seller warrant that this product conforms to its standard specifications when used according to directions. As the conditions of method of its use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for use of this product. Information contained herein is believed to be true but all statements and suggestions are made without any warranty, expressed or implied, regarding accuracy of the information. The hazards connected with the use of this material and the results to be obtained from the use thereof.

STORAGE

Avoid excessive heat. Avoid storage with oxidizing or reducing agents and/or acids. Avoid storage with combustible organic materials. Employees should be trained to handle this product safely. Loosen closures cautiously. Store the product in a cool dry area away from ignition sources.

Storage temperature: Store in cool dry place

Storage pressure: Atmospheric

Product Name: Liquid Enzyme

SECTION 8	EXPOSURE / PERSONAL PROTECTION
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EXPOSURE LIMITS

Exposure limits have not been established for this mixture. Avoid, as far as reasonably practicable, inhalation of vapor, mists or fumes generated. Limits for components are listed below:

COMPONENT #	OSHA PEL TWA STEL	ACGIH TLV TWA STEL	NIOSH TWA STEL
1. D-Limonene	not established	30 ppm	not established
2. Glycol Ether EB	25ppm	20ppm	5ppm
3. Van Wet Acid 98	1 mg/m3	0.2 mg/m3	1 mg/m3
4. Sodium Metasilicate	This product does not have hazardous materials with occupational exposure levels		
5. Surfactant Blend	not established	not established	not established
6. STPP	This product does not have hazardous materials with occupational exposure levels		

ENGINEERING CONTROLS

The level of protection and types of control will vary depending upon potential exposure conditions. If user operations generate dust, fume or mist, use adequate ventilation to keep exposure below exposure limit.

PERSONAL PROTECTION

Ventilation and engineering controls: Use only in well ventilated area. If necessary, use exhaust ventilation to insure adequate ventilation. Insure that water is readily available and that you are prepared to properly wash out your eyes should the need arise. (Refer to section 4).

Respiratory: Wear NIOSH/MSHA approved respirator when ventilation is not adequate. A NIOSH /MSHA –approved air purifying respirator with an organic vapor cartridge or canister may be advisable under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure, air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

Eye Protection: Wear safety goggles to protect against eye contact. See OSHA 29 CFR 1910.33

Skin: Wear chemical impervious gloves. Gloves must be inspected before use. Dispose of gloves after use in accordance with applicable laws and good laboratory practices. Wear protective clothing to minimize skin contact. Wash skin after use. Wash contaminated clothing and dry before reuse.

Other: One should always use chemicals with an awareness of the potential hazard of the effect on the human system. To minimize employee exposure to all chemicals, including this product, use good industrial hygiene practices.

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES
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Physical State and Appearance: Liquid

Odor: Light Floral Scent

Boiling point: Not Available.

Melting point: Not Available.

Flammability: Non-flammable nor Combustible.

Viscosity: Not Available.

Flash point: >94C; non-flammable nor combustible

Decomposition temperature: Not Available.

Color: Amber

pH: 10.1

Freezing point: Not Available.

Density: Not Available.

Particle size: Not Available.

Vapor density: Not Available.

Solubility: Soluble

Vapor pressure: Not Available

SECTION 10	STABILITY AND REACTIVITY
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Chemical Stability: Stable under ambient temperature and atmospheric pressure.
Conditions to avoid: Keep away from heat or excessive pressure. Keep away from heat or excessive pressure. Do not contaminate.
Incompatibility with other materials: Heavy metals, combustible organic materials, reducing agents.
Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Sulfur oxides.
Hazardous polymerization: Major components of this mixture show no hazardous polymerization.
Conditions to Avoid: Oxygen, which supports combustion.

SECTION 11	TOXICOLOGICAL INFORMATION
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Toxicological information has not been established on this mixture. Toxicological information on components within this mixture is given by:

COMPONENT #	TOXICITY
1. D-Limonene	Not established, not acutely toxic
2. Glycol Ether EB	LD ₅₀ Oral - rat - 470 mg/kg LC ₅₀ Inhalation - rat - 4 h - 450 ppm LD ₅₀ Dermal - rabbit - 220 mg/kg Eyes - rabbit - Moderate eye irritation - 24 h
3. Van Wet Acid 98	LC ₅₀ Inhalation - rat - 2 h - 510 mg/m ³ LD ₅₀ Oral - rat - 2,140 mg/kg
4. Sodium Metasilicate	LD ₅₀ Oral - rat - 1,153 mg/kg Skin - Rabbit - Severe Skin Irritation - 24h
5. Surfactant Blend	Not established
6. STPP	LD ₅₀ Oral - rat - 3100 mg/kg LD ₅₀ Dermal - rabbit - 4640 mg/kg

SECTION 12	ECOLOGICAL INFORMATION
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Ecological information has not been established for this product. Ecological information on components within this mixture is given by:

COMPONENT #	TOXICITY
1. D-Limonene	Not established
2. Glycol Ether EB	Toxicity to fish LC ₅₀ - other fish - 220 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates EC ₅₀ - Daphnia magna (Water flea) - 1,815 mg/l - 24 h Eyes - rabbit - Moderate eye irritation - 24 h
3. Van Wet Acid 98	Aquatic LC ₅₀ - >1.0-10 mg/m ³
4. Sodium Metasilicate	Not established
5. Surfactant Blend	Not established
6. STPP	Toxicity to fish LC ₅₀ - freshwater fish - 1650 mg/l - 48 h

SECTION 13	DISPOSAL CONSIDERATIONS
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Dispose of all waste, empty bottles and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

Do not dump into storm drains or any body of water. All disposal methods must be in compliance with all federal, State/ Province and local laws and regulations. Regulations may vary in different locations.

Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. The vendor has no control over the management practices or the processes by which the party who handles or uses this material. The information presented here pertains only to the product as shipped in its intended condition and recommended usage.

SECTION 14	TRANSPORT INFORMATION
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DOT (US)

Not a regulated material.

IMDG

Not a regulated material.

SECTION 15	REGULATORY INFORMATION
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US Federal Regulations:

OSHA standards require that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, safety data sheet (SDS) sheets, training and access to written records. We request that you, as per your legal duty to, make all information in this SDS available to your employees and those who handle or consume the product. To aid our customers in complying with regulatory requirements regulatory information for components of this product are indicated below

This *mixture* has *no established regulatory information* all regulatory information given is based on individual components of the mixture by component number. This mixture contains no products/chemicals restricted by California Prop 65.

Regulatory information has not been established for this product. Regulatory information on components within this mixture is given by:

COMPONENT #	Regulatory Information
1. D-Limonene	Not established. GRAS as safe by FDA. EPA has granted D-Limonene to be used as fragrance/solvent. Not a carcinogen, developmental toxicant or mutagenic compound.
2. Glycol Ether EB	OSHA Hazards: Combustible Liquid, Target Organ Effect, Harmful by ingestion. Harmful if absorbed through skin. Irritant, Carcinogen SARA 311/312 Hazards: Fire Hazard, Acute Health Hazard, Chronic Health Hazard
3. Van Wet Acid 98	SARA 313 – hazardous - contains sulfuric acid
4. Sodium Metasilicate	OSHA Hazards: Harmful by Ingestion. SARA 311/312 Hazards: Acute Health Hazard.
5. Surfactant Blend	Not Established
6. STPP	Not Established

SECTION 16	OTHER INFORMATION
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While the information is believed to be accurate, Jon-Don makes no representations as to its accuracy or sufficiency. This SDS summarizes to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources of each individual component. Since Jon-Don cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. Users are responsible to verify this data under their own operating conditions to determine whether this product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance on information contained herein. This information relates only to the product-designated herein, and does not relate to its use in combination with any other material or in any other process.