



SAFETY DATA SHEET

SECTION I - PRODUCT & COMPANY IDENTIFICATION

Product name: AYF 1177™
 Product code: 6512-01
 Description: Yeast nutrient in liquid form
 Product use: Fuel ethanol production.

Supplier name and address: **Lallemand Biofuels & Distilled Spirits**
Corporate Support Center, 1815 Satellite Boulevard, Building 200
Duluth, GA 30097

Information telephone: 1 (678) 474-4590
 Emergency telephone: 1 (678) 474-4590

SECTION II - HEALTH HAZARD IDENTIFICATION

Product contains enzymes. Signs and symptoms of overexposure to AYF 1177

Skin contact: May cause mild irritation on prolonged contact.
 Eye contact: May cause mild irritation upon direct contact. Seek medical attention.
 Inhalation: In some cases, repeated exposure may lead to allergic sensitization based on the exposure level, duration and susceptibility of the individual. Subsequent chronic or acute exposure in sensitized persons may cause a respiratory allergic reaction in minutes or delayed, or a mixture of both. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.
 Ingestion: May cause mild gastrointestinal disturbances in sensitized individuals.

SECTION III – DATA ON COMPONENTS

Product composition: Blend of enzymes and trace minerals.
 Hazardous ingredients: None

Information on AYF 1177 as follows:

Name	CAS #	% by Wt	LD ₅₀ & LC ₅₀	OSHA PEL	ACGIH TLV
Plant based enzyme	9001-00-7	Proprietary	Not established	Not established	Not established
Glycerine	56-81-5	Proprietary	Not established	Not established	Not established

SECTION IV – FIRST AID MEASURES (If any symptoms persist, seek medical attention)

Emergency and First aid procedures

Eye contact: Flush eyes for at least 15 minutes. If irritation persists seek medical advice
 Skin contact: Wash affected area with soap and water. Remove contaminated clothing and wash before reuse
 Inhalation: Immediately remove person to fresh air. If allergic respiratory reaction occurs seek medical advice
 Ingestion: Wash mouth and throat with water seek medical advice if symptoms persist.

Medical conditions likely to be aggravated by exposure: Not determined

Delayed effect that can be expected after exposure: Not determined



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SECTION V – FIRE FIGHTING MEASURES

Conditions of flammability:	Unknown.
Extinguishing media:	Water, foam, carbon dioxide, dry powder.
Flash point:	Not applicable
Flammable limits:	Not applicable.
Auto-ignition temperature:	No data available.
Hazardous combustion products:	None
Explosion – sensitivity to mechanical impact:	None.
Explosion – sensitivity to static discharge:	None.
Firefighting procedures:	Use self-contained breathing apparatus (SCBA) when exposed to confined or enclosed fires.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Spills/Leaks: Small spills cover with absorbent material, soak up and sweep into suitable container. Large spills dike around spill and pump into suitable container.

SECTION VII – HANDLING & STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Wear protective equipment described in Section VIII if exposure conditions warrant. Wash thoroughly after handling.
Storage:	Cool/dry conditions recommended. Containers should be kept sealed and dry.

SECTION VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection:	Use NIOSH approved respirator when necessary
Eye contact:	Safety glasses or goggles
Clothing:	Appropriate chemical resistant gloves should be worn
Specific engineering controls:	None.
Environmental exposure control	None.

SECTION IX – PHYSICAL & CHEMICAL PROPERTIES

Physical state:	Liquid
Appearance:	Light brown in color
Odor:	Not applicable
Odor threshold:	Not applicable.
Specific gravity:	No data available.
Vapour pressure:	Not applicable.
Vapour density:	Not applicable.
Evaporation rate:	Not applicable.
Boiling point:	Not applicable.
Freezing point:	Not applicable.
Melting point:	Mixture.
pH:	No data available.
Partition coefficient:	Not applicable.
Viscosity:	40 cps
Solubility in water:	Partially soluble.
Explosive properties	Not applicable
Oxidising properties	Not applicable



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SECTION X – STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of use
Incompatibility:	Strong acids, bases and oxidizing agents
Conditions to avoid:	Avoid heat
Materials to avoid	See above
Hazardous decomposition products:	Carbon dioxide, carbon monoxide, Acrolein at temperatures above 290°C (554°F)
Hazardous polymerization:	None.

SECTION XI – TOXICOLOGICAL INFORMATION

Effects of short-term exposure:	None.
Effects of long-term exposure:	Unknown
Irritancy:	Unknown.
Sensitization:	Possible allergic sensitization (see Section II).
Allergy:	Contains enzymes
Carcinogenicity:	Unknown
Reproductive toxicity:	Unknown
Teratogenicity:	Unknown
Mutagenicity:	Unknown
Toxicologically synergistic products:	Unknown

SECTION XII – ECOLOGICAL INFORMATION

Adopt good working practices so that the product is not released into the environment
No ecological information is available.

SECTION XIII – DISPOSAL CONSIDERATIONS

Dispose by methods consistent with Federal, State and Local regulations

SECTION XIV – TRANSPORT INFORMATION

Not a DOT controlled material

SECTION XV – REGULATORY INFORMATION

WHMIS classification for product: Not controlled under WHMIS (Canada)
Ingredient Disclosure List: Not listed on the Canadian Ingredient Disclosure List

SECTION XVI – OTHER INFORMATION

Date of Preparation: October 2011, Reviewed January 2013

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