

# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY UNDERTAKING

Commercial Product Name: **Enzymoplast® - ENZO0900 Biodegradable Grade**

Description: LLDPE base enzyme composition with proteins & sodium Salts (polyethylene) Masterbatch

Name of the Company: Advanced Enzyme Science Limited



## 2. COMPOSITION INFORMATION ON INGREDIENTS

Hazardous Ingredients (specific)	%	LD50 of ingredients	LC50 of ingredients
Linear low density polyethylene	95.0	Not applicable	Not applicable
Enzyme	1.5	Not applicable	Not applicable
Vegetable protein A	1.5	Not applicable	Not applicable
Vegetable protein B	1.0	Not applicable	Not applicable
Citric acid	1.0	Not applicable	Not applicable

### Component CAS Numbers

Ethylene: CAS no. 74-85-1  
Butene: CAS no. 106-98-9  
Enzyme: CAS no. 9012-54-8  
Vegetable Protein A: CAS no. 73049-73-7  
Vegetable Protein B: CAS no. 910719-40-2  
Citric Acid: CAS no. 77-92-9  
Yeast: CAS no. 8013-01-2

## 3. HAZARDS IDENTIFICATION

None

## 4. CERTIFICATION

None

## 5. FIRST AID MEASURES

Inhalation:	No toxic emission is envisaged during processing, however, Exhaust fans / ventilation to be provided adequately for blowing away the composting smell
Eye contact:	Not applicable
Skin contact:	Wash with normal water
Ingestion:	Not applicable

## 6. FIRE FIGHTING MEASURES

Suitable fire extinguishing media:	Non-combustible
Non-suitable media:	None
Special exposure hazards:	None
Protection against fire explosions:	No special requirement

## 7. ACCIDENTAL RELEASE MEASURES

No special requirement

## 8. HANDLING & STORAGE

Store in a dry place away from moisture

## 9. EXPOSURE CONTROLS / PERSONAL PROTECTION

No special requirement

## 10. PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	VALUE
Carrier	LLDPE
Additives	Enzymes, vegetables proteins Citric acid, bacillus & yeast protein
Color	Pallets have a slight Yellowish Brown color in appearance
Compatibility	HMHDPE, LDPE, LLDPE
Density	0.92 mg.
MFI (190 Degree C/ 2.16 kg.)	42 gms. / 10 min.
pH	7.5
Moisture content	0.05 %

## 11. STABILITY AND REACTIVITY

The product is stable under normal conditions of use before extrusion. However, the temperatures of the four zones of the screw and barrel are to be set in ascending order. Temperatures for free melting, elimination of fish eye marks on the surface of the film.

Conditions to avoid:                    Avoid exposure to high moisture  
Material to avoid:                    None

## 12. TOXICOLOGICAL / ECOLOGICAL INFORMATION

This product (ECMB) composition believed not to be dangerous to the working environment with respect to mobility, persistency and bioaccumulative potential, aquatic toxicity and other data relating to ecotoxicity.

## 13. DISPOSAL CONSIDERATIONS

This product (ECMB) has a shelf life of around 12 months from the date of packing. However, if excess moisture adsorption is noticed due to prolonged storage it is recommended to predry minimum for 2 hours at 60-90 degree Celsius after expiry before processing.

## 14. TRANSPORT INFORMATION

UN No.:                    NA  
Sea:                        NA  
Road/ Rail:                NA  
Air:                        NA

## 15. REGULATORY INFORMATION

This product (ECMB) is the sole exclusive product of our company and is to be used as a co-polymer only for manufacturing of biodegradable polyethylene films. It must not be processed in its masterbatch form.

## 16. OTHER INFORMATION

The information contained in this material safety data sheet as of the issue date, is believed to be correct. However, the accuracy of completeness of this information and any recommendations or suggestions is made without warranty or guarantee. Since the conditions of use to determine the conditions of safe company, it is the responsibility of the user to determine the conditions of safe use of this preparation. The information in this sheet does not represent analytical specifications, for which please refer to our technical support system.

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END OF DATA SHEET