



सत्यमेव जयते

सूक्ष्म , लघु और मध्यम उद्यम मंत्रालय  
Ministry of Micro, small & Medium Enterprises  
MSME Development Institute – Ludhiana

**ATTN.: Great Opportunity for MSME Entrepreneurs to set up an enterprise**

**SUBJECT: - AVAILABILITY of Technology for replacement of polyethylene bags –reg.**

**“Granules for Bio-degradable bags”**

**DEAR MSMEs,**

Polyethylene bags/bottles have become persistent threats to environment. The pollution caused by all pervasive polyethylene based packing material is having inadvertent impact on nature. On its own plastics and polyethylene takes about 200-300 years. The efforts to recycle plastic by collection and segregation are tedious and costly.

Keeping in view of ill effects of pervasive usage of plastics and polyethylene bags, various options are being researched to replace these hazardous materials. In such effort, scientists from DRDO have developed the Granules making technology for bio-degradable bags in collaboration with M/s. Ecolastic Products Pvt. Ltd, Hyderabad The formulation developed using starch and food graded materials.

The salient features of the product are

- Do not contain conventional plastic
- No harm to animals/aquatic life by disposal/ consumption
- Eco friendly, Bio-degradable & Home compostable
- Bio-degradable within 60 days and completely turns into manure after 80 days.
- Good Tensile strength (15-20 MPa) and elongation (200-250 %)
- Fully tested & certified by CIPET
- Eco friendly printing in multiple colors based on User requirement
- Cost effective

The small and medium scale industries with an investment of up to 2 Crores can produce the bags with minor modification with their existing production set up (i.e. Twin screw extruder, blow equipment, printer, D-punching, cutting and sealing). DRDO is willing to transfer the technology to industries for mass production to the benefit of society and mankind through MSMEs. The ToT transfer fee is NIL and No Royalty will be charged.

For any technical Queries, please feel free to contact Shri R K Parmar, IEDS, Deputy Director at MSME Development Institute, Ludhiana.

With kind regards,  
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Deputy Director  
GoI, MoMSME  
MSME Development Institute, Ludhiana.