

Bio-degradable Gloves

Research on natural rubber (NR) product biodegradation in soil is important for environmental responsibility and sustainability. Large amounts of one-use disposable latex gloves are thrown into the environment annually. Medical glove wastes undergo thermal destruction (incineration) and gloves from domestic and industrial wastes end up in municipal landfills. The solid waste disposal problem has highlighted issues of scarce landfill space and has stirred up public interest in material biodegradability. MRB examines the degradation of examination gloves and condoms in natural soils, that of gloves in a composting environment.

The specific degradation rates of NR glove pieces, expressed as mass loss per week, were highest in the initial stages of burial for all treatments. The average rate of NR biodegradation in the high nutrient treatment (36.9 mg/week) was three times higher than that in the unamended controls (12.0 mg/week) for the 15 x 9 cm² pieces.