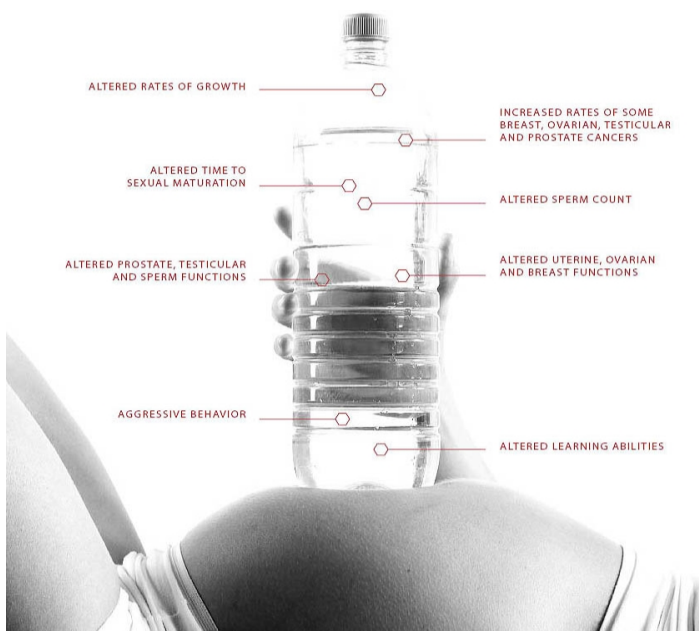


COMPANY: PlastiPure has developed technologies to identify, test, remediate, and certify materials and products to be free of chemicals with estrogenic activity (EA-Free). PlastiPure provides these services through consulting and licensing to material and product manufacturers. While this technology allows solutions across multiple products, PlastiPure focuses on providing solutions in industries where consumers are primarily concerned about safety, such as infant feeding, food packaging, beverage, and personal care. Chemicals and materials needed to support these products are also identified or formulated such as polymers, elastomers, colorants, additive packages, decoration, and others. PlastiPure certifies these products to be PlastiPure-Safe™ EA-Free and provides a seal to show consumers a product has met this higher safety standard.

HEALTH PROBLEM: Many studies have reported that significant health problems can occur when synthetic chemicals are ingested that mimic or block actions of estrogen that occur naturally in the body. While BPA is the best known chemical with EA, thousands of others are suspected to exist. Problems associated with endocrine disruption include higher rates of some cancers, altered reproductive functions, early puberty, obesity, learning disabilities, and behavioral changes. Current attempts to solve the EA problem by removing chemicals one at a time, such as BPA or parabens, do not remove or replace the many other chemicals that may also have EA.



MARKET: Consumers, popular press, nongovernmental organizations (NGOs), and legislators are increasingly concerned about the safety of products and packaging. In many industries, buyers preferentially purchase products they believe provide increased safety. Additionally, product manufacturers have an opportunity to minimize future liability by proactively remediating products before legislation and class-action lawsuits occur. Safer products, support by NGOs, and positive press are additional likely benefits.

SOLUTION: PlastiPure has patented and proprietary formulations and methods to produce many types of EA-free products. These EA-free solutions often use available chemicals, tooling, and processes designed to provide a wide variety of safer consumer products, medical devices, food and drink packaging, cosmetics, and other highly desirable consumer products. PlastiPure can deliver these products directly or can license its technologies to manufacturers (e.g., remediate existing products) and certify the end product to be PlastiPure-Safe™ EA-Free. PlastiPure provides these solutions by recommending or formulating EA-free materials and processing aids at each step of the manufacturing process. After a finished product is made, PlastiPure can test for EA and provide ongoing certification that it is PlastiPure-Safe™ EA-Free.



CAPABILITIES: PlastiPure has unique qualifications allowing its clients to produce truly safer products for an emerging EA-free market:

- PlastiPure has developed patented EA-free technologies which can predict EA in compounds at a molecular level
- PlastiPure has a unique relationship allowing use of robotized and highly sensitive *in vitro* bioassays
- PlastiPure has extensive repository of EA data on common polymers, additives, processing aids, and other materials, as well as EA product data
- PlastiPure's patents cover commercially viable formulations and methods of production of EA-free materials and products
- PlastiPure can usually use available compounds and tools to make EA-Free materials and products at competitive prices
- PlastiPure has existing relationships in the plastic supply chain that supply most commercial plastic products today
- PlastiPure-designed and certified PlastiPure-Safe™ EA-Free products can have the same positive processing and fit-for-use characteristics as non-EA-free competitive products

SUPPORT FOR RESEARCH AND EA-FREE STANDARD: PlastiPure has developed much of its technologies through several grants received the National Institute of Health (NIH) and National Science Foundation (NSF). In addition, its scientists continue to publish their evaluation methods and data in multiple peer-reviewed articles ensuring transparency to clients and consumers. PlastiPure uses two proprietary robotized cell-based assays, the MCF-7 cell proliferation assay being validated by ICCVAM/NICEATM (15 U.S. federal agencies including FDA, EPA, NIH, OSHA) and the BG1-Luc assay which is ICCVAM/NICEATM and OECD approved.