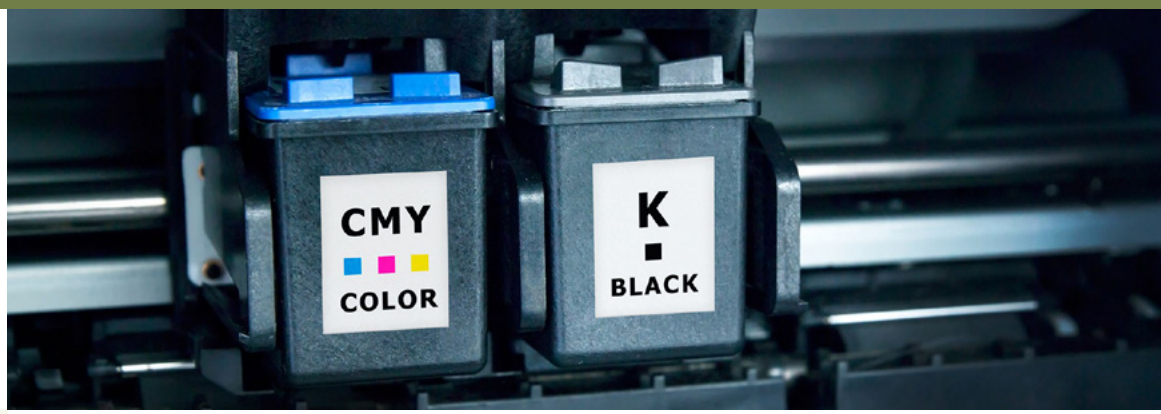
Printer Ink
Sustainability Insights



Product Description

Printer Ink includes the consumable media used by printers for printing paper documents. Product types include toner cartridges for laser or led printers and liquid inkjet inks and cartridges.

Mission

The mission of The Sustainability Consortium (TSC) is to improve the sustainability of products when they are made, purchased, and used, with a focus on manufacturers and the retail buyers who decide what products to carry in stores. The information in this document is drawn from our detailed research on known and potential social and environmental impacts across product life cycles. TSC acknowledges that other issues exist, but we have included here those that are most relevant to the decision making of retail buying teams and manufacturers. The topics are listed alphabetically for ease of reading; the order does not represent prioritization or other criteria.

Sustainability Insights

Managing the Supply Chain

Supply Chain Transparency

Chain-of-custody and other data-sharing systems and initiatives can help improve transparency about the materials used in printer ink and the chemicals and processes used to manufacture those materials. Manufacturers and suppliers can work together to create and implement solutions to common challenges related to materials in printer ink such as energy requirements to produce them, potentially hazardous chemicals used in manufacturing, and efficient exchange of information across the supply chain.

Use of Resources

Climate and Energy

Component manufacturing and final product assembly can consume significant amounts of electricity and energy, leading to greenhouse gas emissions. Manufacturers can help abate these impacts by measuring, tracking, and reporting energy use and greenhouse gas emissions, with a focus on reduction. They can also perform preventative maintenance on equipment, replace inefficient equipment, and encourage efficient energy behaviors throughout their operations.

Disposal and End-of-Life

Ink chemistry that is incompatible with paper recycling decreases the efficiency of recycling processes, requiring greater amounts of energy and water to recycle printed paper. Manufacturers should work with downstream recyclers to optimize ink chemistries for both printed image quality and recycling efficiency.

Material Efficiency

Throwing away empty ink cartridges wastes the resources that were used to produce the original product and increases waste going to

landfills. Manufacturers should operate cartridge take-back programs, establish closed-loop systems to reuse cartridges, and engage with consumers to encourage cartridge recycling.

Packaging

Packaging design should be optimized to ensure that packaging performs its essential functions of containment and protection while minimizing use of materials, energy resources, and environmental impacts across the life cycle of the packaged product. Under-packaging and over-packaging can both lead to increased impacts. These impacts may be mitigated by using more energy-efficient manufacturing, creating packaging materials from renewable resources, designing packaging to be recyclable, and encouraging consumers to recycle packaging.

Pollution

Wastewater generated during paper recycling can be contaminated by chemicals from inks, requiring treatment at the recycling facility to avoid releasing these materials into water supplies. Manufacturers should develop chemistries that are compatible with existing treatment systems or are less harmful to the environment.

Transportation and Logistics

Products are transported by land, sea, and air. Manufacturers should select carriers that use fuel-efficient vehicles to reduce emissions. Carriers can address fuel efficiency through preventative maintenance, the use of alternative fuels, and the selection of optimal vehicles, routes and transport modes. Transportation efficiency can also be improved by maximizing load capacity in vehicles and optimizing the packing of transport vehicles.

Workers and Communities

Workers

Workers may be exposed to hazards in the workplace. In some parts of the world, their rights to freedom of association, equal opportunity and treatment, and fair wages may not be protected. To help ensure worker health, safety, and labor rights, final product manufacturers should have a documented health and safety management plan, including a chemical management plan where needed, and provide safety training and personal protective equipment to workers. Manufacturers should procure materials from suppliers that address worker health and safety and labor rights transparently and should perform audits when needed.