



### Product Description

Formulated Goods include products composed primarily of a mixture of chemical ingredients. Product types include leave-on personal care products, rinse-off personal care products, over-the-counter drugs, prescription drugs, cleaning products, household pesticides, paint, printer ink, and automotive fluids.

### 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.



### Animals

#### Animal welfare

Depending on local, legal, and regulatory requirements, animal testing may be required to substantiate the safety of ingredients and final formulations. Manufacturers should continue to support the development and validation of alternative testing methods, to prevent unnecessary animal testing of raw materials and products.



### Consumers

#### Consumer Health and Safety

Manufacturers should formulate products to contain ingredients in accordance with applicable safety standards and should perform any necessary assessments on ingredients and formulations. Manufacturers should list ingredients in accordance with regulatory requirements and communicate proper usage and disposal instructions to consumers in a clear and accessible fashion.



### Managing the Supply Chain

#### Palm Oil

Many formulated goods contain palm oil, palm kernel oil, or ingredients that have been chemically derived from these oils. Palm oil production is one of the leading causes of deforestation, which is a significant contributor to climate change. The cultivation of palm oil also impacts climate, land and water. Improper palm oil production and management may also lead to worker exploitation and threats to the health and safety of workers. Manufacturers should select suppliers that are working to improve sustainability and adopt standard guidelines from the Roundtable on Sustainable Palm Oil (RSPO) or other certifications.

#### Pollution

Formulated goods manufacturing may result in the release of wastewater that contains chemicals that are hazardous to humans and the environment. To mitigate potential impacts, manufacturers should implement best available practices and technologies to abate these emissions and consider substitute materials when appropriate.



## Use of Resources

### Climate and energy

Formulated goods manufacturing, raw material processing, and ingredient production uses limit fossil fuel resources as materials and for energy, leading to greenhouse gas emissions. Manufacturers should procure from suppliers that help abate these impacts by measuring, tracking, and reporting energy use and greenhouse gas emissions, with a focus on reduction. They should also perform preventative maintenance on equipment, replace inefficient equipment, use renewable energy sources, and encourage efficient energy behaviors throughout their operations.

### Disposal and End-of-Life

Some formulated goods contain chemicals that, if leaked, spilled, or disposed of improperly, can pose a health threat to humans and other life. Manufacturers should maximize the safety of their products, participate in programs that collect and handle used product responsibly, when applicable, and educate consumers about proper disposal.

### 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, selecting recyclable and sustainably managed renewable materials, and encouraging consumer recycling.

### Water

Ingredient processing for formulated goods can use a significant amount of water, which can contribute to freshwater depletion and may be problematic in water-stressed regions. Manufacturers should procure ingredients from suppliers who measure water use and perform water use assessments throughout their supply chains in order to map water risk in different geographical regions and mitigate impacts associated with freshwater depletion. Manufacturers should assure that water pollution is avoided throughout their supply chain, including where local government monitoring is lax.



## Workers and Communities

### Workers

Workers may be exposed to chemicals or other industrial hazards. To help ensure worker health and safety, 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 transparently and should perform audits when needed.