



## Product Description

Antifreeze, also known as engine coolant, is used for protecting against freezing, assisting with heat transfer, and protecting against corrosion, and includes ethylene and propylene glycol antifreezes used in automotive engines.

## 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



### Consumers

#### Consumer Health and Safety

Antifreeze should be handled with care. Hot antifreeze can cause severe burns to users, and some antifreeze formulations are toxic if swallowed by humans or animals. Manufacturers should educate consumers about these risks and, where appropriate, design products that pose the least possible risk to people and animals.



### Managing the Supply Chain

#### Workers

Workers may be exposed to dust, noise, harmful chemicals, or other industrial hazards. To help ensure worker health and safety and labor rights, 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.



### Use of Resources

#### Climate and Energy

Burning fuel to produce the chemical ingredients of antifreeze can generate pollutants that contribute to climate change, smog, acid rain, and other impacts. Manufacturers should procure new ingredients from petrochemical plants that implement best practices and technology to improve energy efficiency and capture emissions. Manufacturers should also use recycled ingredients.

#### Disposal and End-of-Life

Antifreeze contains 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 antifreeze, participate in programs that collect and handle antifreeze responsibly after final use, 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, creating packaging materials from renewable resources, designing packaging to be recyclable, and encouraging consumer recycling.

### **Pollution**

Harmful gases may be emitted during the production of some chemicals used in antifreeze. Manufacturers should work with their supply chains to implement best available practices and technology to minimize or eliminate these emissions.