



WHEREAS:

Nanotechnology is the science of manipulating matter at the molecular scale to build structures, tools, or products. One nanometer is approximately one millionth the length of a grain of sand. While nanoparticles allow innovation, the scientific community has raised serious questions about their safety, especially when ingested.

Hershey's Good and Plenty candies have been found in independent laboratory testing in 2014 to contain titanium dioxide nanoparticles.

Because of their small size, nanoparticles are more likely to enter cells, tissues, and organs where they may interfere with normal cellular function and cause damage and cell death. Peer-reviewed scientific research suggests that nanomaterials (including those larger than 100 nm) may not be safe for ingestion. There is no consensus on what size is safe, or what long-term effects these materials may have.

Several in vivo and in vitro studies on the effects of titanium dioxide nanoparticles have raised potential concerns including that such nanoparticles may cause inflammation, cell death, and/or DNA damage (including DNA strand breaks and chromosomal damage in bone marrow and peripheral blood). (See Trouiller 2009; Lai 2008; Gerloff 2009; Tassinari 2013; Gui 2013; Lucarelli 2004).

The National Research Council reported in 2012 that "regulators, decision-makers, and consumers still lack the information needed to make informed public health and environmental policy and regulatory decisions" about nanoparticles.

Similarly, the U.S. Food and Drug Administration has not enacted regulations to protect consumer health related to use of nanomaterials in food, but has issued guidance stating:

- Nanoparticles can have chemical, physical, and biological properties that differ from those of their larger counterparts; and
- "We are not aware of any food ingredient. . . intentionally engineered on the nanometer scale for which there are generally available safety data sufficient to serve as the foundation for a determination that the use of a food ingredient . . . is GRAS [Generally Recognized As Safe]."

Companies that use, intend to use, or simply allow the use of nanomaterials in their food and food packaging products may face significant financial, legal, or reputational risk. Proponents believe that the best way for Hershey's to protect the public, and shareholder value, is to avoid using nanoparticles until and unless they have been subject to robust evaluation and demonstrated to be safe for human health and the environment.

BE IT RESOLVED:

Shareholders request the Board publish, by October 2016, at reasonable cost and excluding proprietary information, a report on Hershey's use of nanomaterials, including the products or packaging that currently contain nanoparticles, the purpose of such, and actions management is taking to reduce or eliminate risk associated with human health and environmental impacts, such as eliminating the use of nanomaterials until or unless they are proven safe through long-term testing.