

**NASA  
Glenn  
Success  
Stories**

# Microcide and NASA Prevent Food-Borne Illness



## TECHNOLOGY

NASA's Food Technology Commercial Space Center at Iowa State University develops food systems to feed astronauts in space. The Center determined Microcide, Inc.'s PRO-SAN sanitizer is safe for space travel use.

## COMMERCIAL APPLICATION

Microcide, Inc. provides biodegradable, environmentally safe microbicidal products for personal care, public health, food preparation, and agriculture. The company has a broad family of patented products with the benefit of promoting good health and a clean environment at an affordable price. Previously, Microcide's emphasis was on product development, resulting in limited success with product marketing and selling. To assist the company in becoming self-sustainable, the NASA Glenn Garrett Morgan Commercialization Initiative introduced Microcide to NASA's Food Technology Commercial Space Center. As a result, Microcide became an affiliate of center and began working with personnel from NASA's Johnson Space Center (JSC) to develop their product, PRO-SAN, for space missions. Scientists at the Food Technology Commercial Space Center, under the guidance of researchers at JSC, determined that Microcide's PRO-SAN is both safe and effective for use in manned space missions.



Microcide's PRO-SAN eliminates harmful bacteria with up to 99.99% efficacy.

## SOCIAL/ECONOMIC BENEFIT

Food safety is a significant concern both in the home and for commercial processors. However, many industrial and commercial sanitation products are laden with toxic chemicals known to create carcinogenic byproducts during use. Microcide's biodegradable PRO-SAN is a zero volatile organic compound (VOC) comprised of safe sanitizing agents that is proven to eliminate harmful food-borne bacteria such as E. coli, salmonella, listeria, cholera, shigella, staphylococcus, streptococcus, and many others with 99.99% efficacy.

## NASA APPLICATIONS

For upcoming manned missions to the moon and Mars, safe food handling and storage are a must. Even for shorter-duration missions, astronauts crave fresh fruit and vegetables which, in space, only have a shelf life of 2 to 3 days and tend to give off nauseous odors. Through the Food Technology Commercial Space Center, NASA now has access to a well-understood and extremely safe sanitation agent to thoroughly clean fruits and vegetables, extending their shelf life and keeping the astronauts happy and well nourished.

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