

100% Natural Biologic Isoform Military Micronutrient Formulation (MMF®) Natural Source vs. Natural Form Ingredients

Military Micronutrient Formulation (MMF®) contains the ONLY clinically validated, scientifically proven micronutrient formulation created for the United States Department of Defense to protect the health of soldiers and other personnel on the battlefield. The large body of data derived from double blind, placebo controlled, randomized human trials and other scientific validations is beyond dispute. MMF® not only works, it is *scientifically proven* to work!

Due to years of semantic misunderstandings and misleading sales & marketing campaigns in the marketplace, some might question the use of ‘Natural Isoform’ ingredients vs. ‘Natural Source’ ingredients. The purpose of this memo is to share with you our perspective on this topic and thereby offer some clarity.

Definitions

Natural Source. When we eat a carrot (vitamin A), drink orange juice (vitamin C), or eat grains (vitamin B), we are consuming Natural Source ingredients. Natural Source ingredients are nutrients as found in nature (plants, animals, soil) and recognizable in their original form. Our bodies respond very well to these, but natural variations make Natural Source micronutrients very difficult—often impossible—to standardize, and they frequently carry contaminants.

Natural Isoform. Natural Isoform micronutrients derive from Natural Source ingredients via human processes that isolate desired micronutrients from the unwanted parts of the source and its contaminants. Natural Isoform micronutrients are readily standardized and are therefore ideal for compliance with regulations. Being molecularly identical to pure Natural Source micronutrients, Natural Isoform micronutrients reach high blood levels quickly without risk of undesirable impurities or degraded potency.

Synthetic Ingredients. Created using laboratory processes to be sufficiently similar to the micronutrients they are designed to replicate, synthetic micronutrients may or may not be molecularly identical to a Natural Source micronutrient. Synthetic micronutrients are typically the least expensive form of a nutrient and are most easily standardized, but adverse reactions can occur: cases have been reported of Synthetic ingredients triggering allergies and reactions ranging from uncomfortable to severe.

Standardization. Standardization is the process that aims to achieve predictability of a particular substance (for example, the quantity of vitamin C in 200ml of orange juice, or the amount of Omega 3 in 100mg of krill oil.) Standards are essential to measurement, and measurement is critical to valid science.

Overview

Each micronutrient used in MMF® is in its Natural Isoform because:

- 1.) The human organism ‘absorbs’ micronutrients best in their ‘Natural Biologic Isoform.’ In other words, in their exact molecular structure as found in nature.

- 2.) Good Manufacturing Practices (GMP) in the developed world (Japan, USA, European Union, etc.) require standardization of all ingredients meant for human consumption.
- 3.) Scientific validation, clinical trials, and testing require standardization of the substance evaluated. Natural Isoform micronutrients allow this while retaining their nutritional value.
- 4.) Natural Source ingredients frequently contain other natural and/or synthetic substances such as heavy metals, pesticides, hormones, environmental pollutants, etc. Such undesirables are difficult to remove and predictably threaten good health.

Summary

Dr. Gerald H., M.D., the chief medical doctor involved in creating **MMF**[®], is an advocate of using Natural Source ingredients when/where possible. While developing **MMF**[®] he visited the largest and most prestigious centers for naturopathic herbal medicine in Asia & S. America at least 23 times to fully understand the limitations of using Natural Source ingredients. Based on this extensive experience, clinical studies, gas chromatography, and more, he concluded that even the most skilled distributors of natural herbal remedies could not standardize their formulations to a satisfactory level.

As a result, **MMF**[®] was formulated with Natural Form ingredients, enabling the creation of a very effective micronutrient formulation with the additional benefit of being standardized to effective levels. Additionally, and perhaps most importantly, the micronutrient formulation in **MMF**[®] was subjected to intense clinical validation and testing, including human trials, proving its many benefits (see Human Studies, EngageDNA, Inc. 2013).

To reiterate, technically speaking, a Natural Source ingredient manipulated by humans to extract nutrients (example: yeasts grown to extract vitamin A) is no longer a Natural Source ingredient. Rather, it becomes a Natural Form ingredient IF the molecular structure remains identical. There exists a perception that “natural ingredients” in nutritional supplements are actually Natural Source ingredients, but by this definition they are not.

As the debate over “natural” ingredients continues—and it will certainly continue—we encourage our members to refer to this memo and the Human Studies documentation then ask: what do the clinical trials and scientific studies on the micronutrient formulation in **MMF**[®] tell us?

Important Note #1: the Team’s research facilities use sophisticated and sensitive instrumentation and methodologies to create unique health solutions with Micronutrient Formulations. These special facilities are the *sole source* for numerous DNA and related studies for NASA facilities including Johnson Space Center and Ames Research Center, Walter Reed National Military Medical Center, U.S. Office of Naval Research, U.S. Army Medical Research Institute of Chemical Defense, U.S. Naval Health Research Center, U.S. Armed Forces Radiobiology Research Institute, and various academic institutions.

Important Note #2: **MMF**[®] has been successfully tested for safety *and* efficacy in the laboratory, in animal studies, and in human trials setting new standards in natural biologic protection. Further, **MMF**[®] has been utilized by countless troops, patients, and volunteers spanning several years with no significant adverse effects.