

Micronutrient powders

Empowering young children with optimal nutrition to pave the way for brighter futures



What are micronutrient powders?

Designed to correct micronutrient deficiencies by improving the nutritional profile of foods, powdered vitamins and minerals, also called micronutrient powders (MNPs), are scientifically proven to provide the nutrients that infants and children need to ensure their best possible growth and development.

Human milk represents the nutritional gold standard for infant nutrition and dsm-firmenich strongly supports and follows the World Health Organization's recommendation that infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and long-term health. From six months of age, when complementary foods are introduced, MNPs can be used. They are safe and cost-effective, and can be used in conjunction with breastfeeding until the child is five years old. Mixed directly into any ready-to-eat, semi-solid food, MNPs are typically supplied in single-dose sachets, or as multiple servings for use beyond the home environment, such as in school feeding programs.

The independent Home Fortification Technical Advisory Group (HF-TAG) promotes the use of MNPs containing 15 crucial micronutrients, however formulations can be customized to meet the individual needs of different populations.

Micronutrient powders (MNPs) are known to be highly effective, for example, they have been shown to reduce anemia and iron deficiency in young children. The World Health Organization recommends using MNPs to supplement food for infants in regions where the prevalence of anemia in children under five years of age is above 20%.

Making change happen

A third of the global population is affected by micronutrient deficiencies, or hidden hunger, but effectively combating this issue will require collaboration from key stakeholders on a local, national and global scale. MNPs have been specially designed for maximum effectiveness and offer a wide range of benefits:

Easy integration: By not affecting the taste, consistency or appearance of food, MNPs do not require a change in the eating habits of children under five years old.

Acceptability: As a food-based intervention, MNPs are more widely accepted by parents than medical interventions. They also do not interfere with continued breastfeeding, which is recommended to continue in parallel for two years and beyond.

Convenience: Provided in powder form, MNPs can be simply mixed into any ready-to-eat semi-solid food in the home.

For maximum effectiveness, it is crucial that parents are educated to understand the product and its correct use, as well as good hygiene practices during food preparation. As such, any home fortification programs should be delivered in conjunction with educational behavior change campaigns.

Combating micronutrient deficiencies with dsm-firmenich

dsm-firmenich offers customized solutions that are safe, affordable and effective in combating hidden hunger, as well as being tailored to the needs of local communities in developing economies. In addition to providing high quality micronutrients, dsm-firmenich's world-class scientific and technical support ensures the risk of malnutrition is reduced by developing highly efficient products.



Multiple servings dose



Single servings dose

Our solutions

dsm-firmenich has supplied MNPs since such interventions began and has a long track record of success. dsm-firmenich's first MNP sachets for individual use were launched in 2008 under the brand name MixMe™. Millions of our MixMe™ MNP sachets have now been distributed worldwide by agencies, governments and non-governmental organizations. As recommended by HFTAG, the sachets contain the 15 essential micronutrients most commonly lacking in the diets of children aged from six months to five years.

MixMe™ MNPs are delivered in soft foil pouch bags or boxes that contain 30 individual 1g sachets, to provide the recommended monthly intake per child (up to one sachet per day). They are also available in multiple servings for feeding larger numbers of children.

Both the formulation of MixMe™ and its packaging artwork can be customized to meet the specific and unique needs of diverse groups worldwide. For example, Sinadarin Bitamin is a MNP powder developed together with UNICEF and the Nigerian Ministry of Health and is widely used in Nigeria.

Rethinking packaging

To address growing demands for more environmentally friendly products and ensure that we meet our sustainability goals, we have been working to find a sustainable and safe packaging solution for our micronutrient powder products. After years of research, we have successfully developed a packaging material that fully protects our micronutrient powders and, crucially, is more sustainable. The solution consists of both primary and secondary packaging. The new primary packaging is a fully compostable sachet, which is made from more than 65% biobased material and has a proven absence of ecotoxic effects. The secondary packaging is re-usable and re-sealable. Overall, the combined solution (both primary and secondary) contains 80% less aluminium than before. Tested under challenging heat and humidity conditions, the packaging solution gave the same level of protection to the vitamins and minerals present in the micronutrient powders as the industry-standard.



Talk to us

At dsm-firmenich, we know that creating brighter lives for people worldwide takes solid experience, technical expertise, and passion at every stage of the development process. That's why we constantly innovate affordable, aspirational, and accessible nutritional solutions, empowering our customers' products to change lives anywhere in the world. This takes more than ingredients. It takes a partner. Get in touch to find out more about how you can help unlock the potential in every individual by working with dsm-firmenich: www.nutritionimprovement.com

YOUR END-TO-END PARTNER

PRODUCTS CUSTOMIZED SOLUTIONS EXPERT SERVICES

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