



Maxilact®



Generations of winning lactase We make it happen

Generations of people anywhere in the world have been able to enjoy lactose-free dairy thanks to DSM who was the first to commercialize the enzyme lactase for milk back in 1964. Since then, we have been developing and producing our own lactase in Europe. It is our way to ensure the best quality by being in full control of the production process of the enzyme, from selecting the best strains to manufacturing and application expertise.

Lactase leader since 1964

It was a groundbreaking innovation when DSM was the first to come with a solution to help everyone enjoy the benefits of healthy dairy. In the meantime, the world has changed and DSM has grown to become the world's largest supplier of dairy health ingredients, catering for any consumer profile you are targeting with its combination of health ingredients. What has not changed – we continue to be the primary producer of lactase in the world.

The clean taste expert

With our scientific expertise, we have done extensive research on off-flavor development when lactase is used in dairy products. The shelf life of lactose-free products can be limited because of taste deterioration. We have found that arylsulfatase – a common impurity in lactase preparations - is causing this off-flavor once a dairy product is treated with an enzyme preparation. Our scientific knowledge has enabled us to develop Maxilact® LGi which is free of arylsulfatase. This means that off-flavor development is no longer an issue. Maxilact® provides you with the longest lasting clean taste.

Sweetness without adding the calories

Maxilact® also drives sweetness enhancement in dairy products, boosting

taste without adding calories to it, as it breaks down the milk sugar lactose into glucose and galactose – both with a higher relative sweetness than lactose. Our customers are able to achieve sugar reduction in their dairy products of between 1-2g /100g with no compromise on taste - thus providing a healthier alternative. And in applications like ice cream it prevents crystallization, but also improves the scoopability and meltability.

Dairy Health and Wellness

DSM has a unique portfolio of health ingredients – including lactase, vitamins, minerals, omega's, fortificants and cultures and enzymes which allow our customers to build innovative nutritional concepts. We have supported our customers to create the world's favorite brands in the lactose-free category and dairy health. And not just for the lactose-intolerant, but for many different target groups as lactose-free is appealing to a broad group of consumer who are conscious about health and wellness.

DSM's service supports customers to speed up NPD and market introduction by application support. Our technical experts support our customers to safely and consistently reach residual lactose levels as low as <0.01%. On the marketing side, our customers benefit from our global expertise on the latest market information, trends, successstories from other regions and regulatory support.

Dairy

Lactase portfolio

Product range	Available pack sizes	Activity	Shelf life	Features	Benefits
Maxilact® LGi	<ul style="list-style-type: none"> • 5 kg • 20 kg • 1000 kg 	5000 NLU/g	24 months	<ul style="list-style-type: none"> • High purity • Free of arylsulfatase • Free of invertase 	<ul style="list-style-type: none"> • Excellent flavor stability • Ideal for sugared dairy products • Label friendly
Maxilact® LGX	<ul style="list-style-type: none"> • 5 kg • 20 kg • 1000 kg 	5000 NLU/g	24 months	<ul style="list-style-type: none"> • Very high purity • Free of arylsulfatase • Suitable for sterile filtration 	<ul style="list-style-type: none"> • Excellent flavor stability • Label friendly
Maxilact® LAGX	<ul style="list-style-type: none"> • 5.75 kg • 11.5 kg 	2000 NLU/g	12 months	<ul style="list-style-type: none"> • Aseptic packaging • Free of arylsulfatase 	<ul style="list-style-type: none"> • Suitable for aseptic dosing • Excellent flavor stability
Maxilact® L	20 kg	2000 NLU/g	24 months	Cost effective lactase for small scale usage	Ideal for applications such as condensed milk and dulce de leche: <ul style="list-style-type: none"> • Prevents sugar crystallization in certain applications • Improves maillard reaction
Maxilact® KPO	20 kg	5000 NLU/g	24 months	Suitable for Kosher for Passover	KPO lactase exclusively produced and offered by DSM
ENZYME BLEND W₅	1200 kg	5000 NLU/g	24 months	Industrial grade for whey processing (not suitable for other dairy applications)	<ul style="list-style-type: none"> • Suitable for treating whey streams at neutral pH • Improved cost-in-use versus Maxilact® range
Maxilact® A₄	20 kg	5000 ALU/g	6 months	Acid lactase (liquid) for whey processing	Processing aid for producing refined acid-whey hydrolyzates, lactose-reduced whey powders and sweeter tasting acid-whey permeate

DSM Food Specialties

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For DSM, quality is a way of life. This is the core of Quality for Life®.

Quality for Life® is the mark of quality, reliability and traceability. It means that DSM customers are getting the best nutrition & health ingredients, knowing the source on which they depend. Quality for Life® means sustainability. It symbolizes our commitment to our environment, consumers, our business partners, our people and the regulatory framework that governs our operations. With the Quality for Life® seal, we guarantee peace of mind for you and for your customers.

DSM – Bright Science. Brighter Living.™

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