

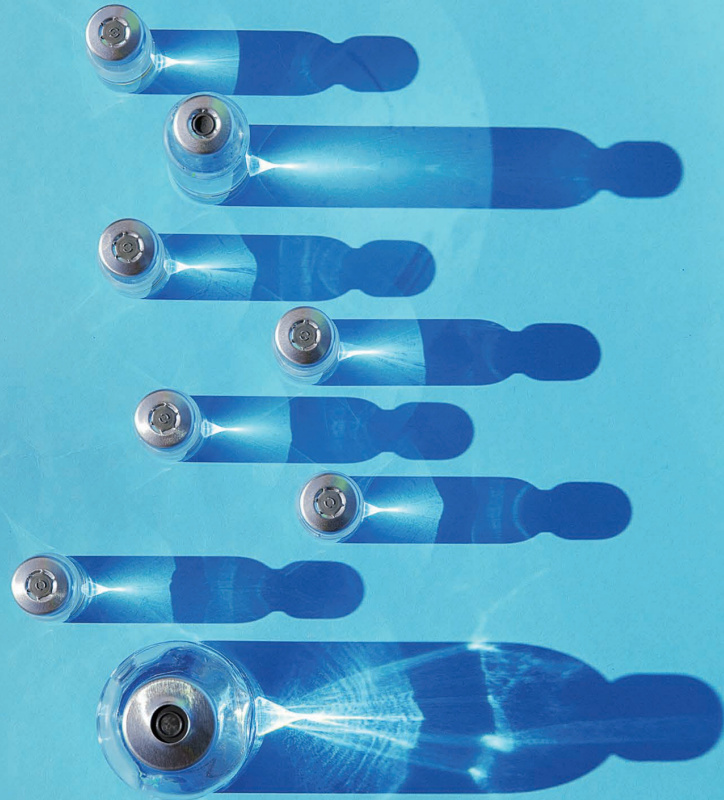
Equitable Well-Being

Shine a light on universal health



Pharmaceuticals are an essential key to achieving equitable well-being for all

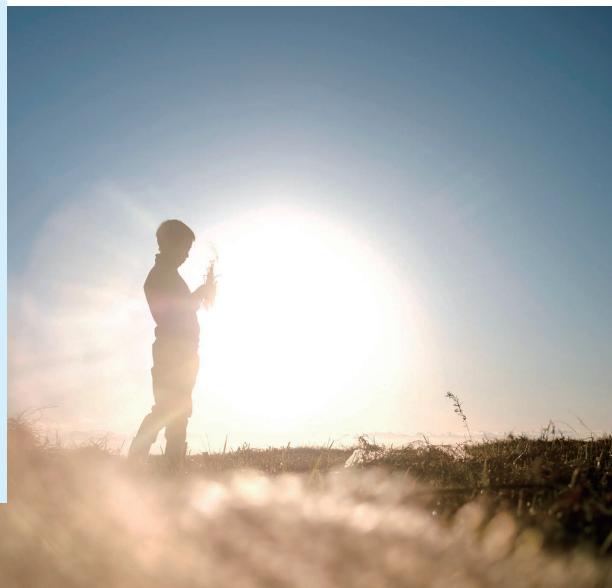
Since 1883, Nagase Viita has been developing and manufacturing functional ingredients using microorganisms and enzymes. We have developed various products for pharmaceuticals through our expertise in biotechnology and in-depth knowledge of saccharide research and production. We are driving positive change in the pharmaceutical industry and fostering healthier societies.



It all started with a gift from the sun

Nagase Viita's origins can be traced back over 140 years when sweet foods were very highly valued, and we developed syrup from starch, a gift from the sun. Since then, we have continued to develop ingredients using the power of microorganisms and enzymes and have used the insights and learnings gained from interacting with nature to help enrich society and our daily lives.

Our long history of respecting nature and expertise in biotechnology led to the world's first successful mass production of trehalose, which has been supporting potentially life-changing drug modalities and significantly impacting the pharmaceutical industry. We have committed to the integrated production of trehalose, from procurement of raw materials to manufacturing and advanced refining, to ensure a stable supply of safe, high-purity and low-endotoxin trehalose. We continue to innovate and expand the biopharmaceutical applications of trehalose.



Achieving Equitable Well-Being for All

»» *Respecting Our Planet*

Creating a prosperous future for both people and nature, we strive to improve greener and cleaner production that does not negatively impact the people involved or the natural environment, including:

- Utilization of naturally-derived raw materials, such as starch
- Manufacturing of natural ingredients using enzymes derived from soil microorganisms
- Reduction of CO₂ emission during procurement and production processes
- Reduction of post-manufacturing waste

Procurement of raw materials and resources



We confirm with suppliers that raw material production (e.g. starch) does not involve deforestation or human rights violations.

Product manufacturing



- Promoting energy conservation and reduction of CO₂
- Using proper inventory control and manufacturing planning to reduce waste
- Using water resources efficiently

Promotion of waste reduction and recycling



We promote wastewater treatment to meet environmental standards and recycling of residues after disposal as compost and cement admixture.



We have been committed to sustainable manufacturing, considering the well-being of people and natural environment as our core importance. We have been awarded the platinum rating, the top 1% of 130,000 assessed companies by EcoVadis, the world's most trusted assessment organization in France for business sustainability ratings.

»» Delivering Universal Health

Biopharmaceuticals have been a basis for new life-changing medicines and therapeutic treatments. They often encounter stability issues, such as degradation or aggregation during manufacturing and storage, requiring strict temperature control. These challenges have left the world facing difficulties in delivering viable medicines, vaccines, and essential healthcare, especially to areas with limited transport infrastructure and unstable utility supply.

Utilizing our pharmaceutical ingredients, such as trehalose, in facilitating the storage and transport of medicines has been seen as playing an essential role in ensuring a stable global supply. Our innovative solutions are transforming the global health landscape, empowering communities, and bridging gaps.

With an unwavering dedication to well-being, we strive to ensure equitable access to quality healthcare for all.

SOLBIOTE™

One of the practical ways to store and deliver biopharmaceuticals is lyophilization. Saccharides, including trehalose, act as key excipients to stabilize large molecules that would otherwise be denatured during dehydration and freezing.

Our SOLBIOTE™ portfolio includes high-purity and low-endotoxin TREHALOSE SG and MALTOSE PH, providing solutions for biologics, vaccine, and cell-based therapeutics development. SOLBIOTE™ stabilizes proteins and nucleic acids and preserves the quality of antibody drugs and other products widely used to treat severe infectious diseases and cancer.

Benefits of SOLBIOTE™:

- Stabilizes higher-order protein structures during dehydration and freezing
- Prevents cells and liposomes from damage during freezing and thawing
- Suitable for parenteral use (low-endotoxin)

		SOLBIOTE™	
Grade		Injection Grade	
Product Name		TREHALOSE SG	MALTOSE PH
Purity		≥99.0% (Trehalose)	≥98.0% (Maltose)
Endotoxin		<0.3 EU/g	<0.6 EU/g
Application		<ul style="list-style-type: none"> ● Stabilization of antibodies, peptides, and vaccines for injection ● Additive for culture medium 	<ul style="list-style-type: none"> ● Stabilizer for immunoglobulins ● Solubility enhancer and stabilizer of APIs
Packaging		1kg/PE bag, 20kg/carton, 20kg/plastic container	25kg/carton
Regulatory Approval	JP	✓	✓
	USP-NF	✓	
	Ph. Eur.	✓	
	CP	✓	✓
	US DMF	Type IV	Type II
	China DMF	F20170000105 (A)	F20200000041 (1)
Other	Kosher	✓	✓
	Halal	✓	✓



Discover our functional pharmaceutical ingredients



'Trehalose is enabling life-changing protein therapeutics and exosomes' biopharmadealmakers, Sep. 2022
nature research

(Nagase Viita is formerly known as Hayashibara)



Oral Grade		
TREHALOSE 100PH	PULLULAN	SUNMALT™-S
≥99.0% (Trehalose)	—	≥92.0% (Maltose)
—	—	—
<ul style="list-style-type: none"> ● Additive for oral solution ● Excipient for solid oral dosage forms 	<ul style="list-style-type: none"> ● Additive for solid oral dosage forms (binder, tablet coating, granulation) ● Film 	<ul style="list-style-type: none"> ● Excipient for solid oral dosage forms
20kg/carton	10kg/carton	20kg/paper bag
✓	✓	
✓	✓	✓
✓	✓	
✓	✓	✓
✓	✓	✓

For Inquiries, —————

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