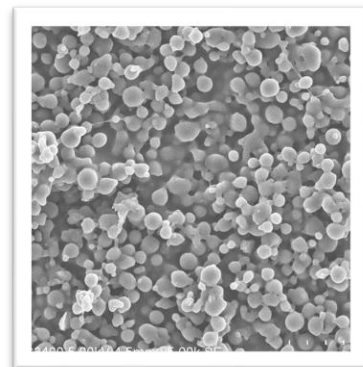


MBDP-6

Marine biodegradable powder

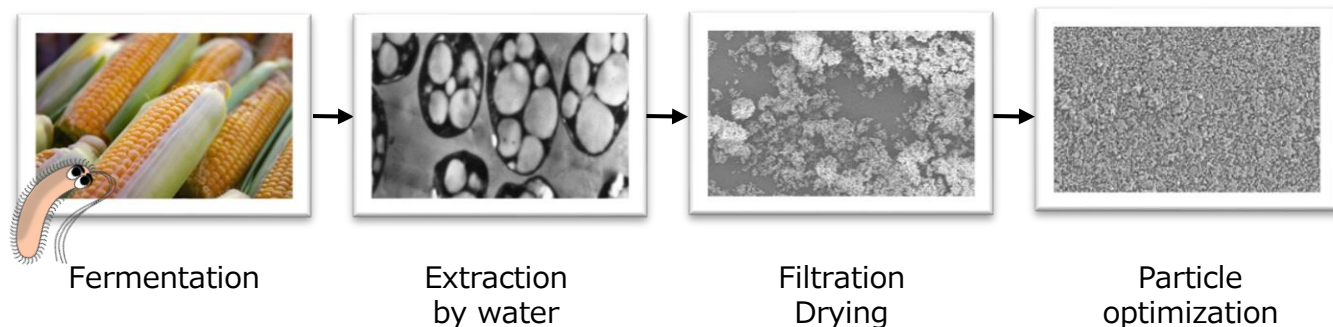
- Good biodegradability in sea water and soil
- Only use fermentation and physical process in production
- SPF Boosting
- Texture modifier



1. Composition

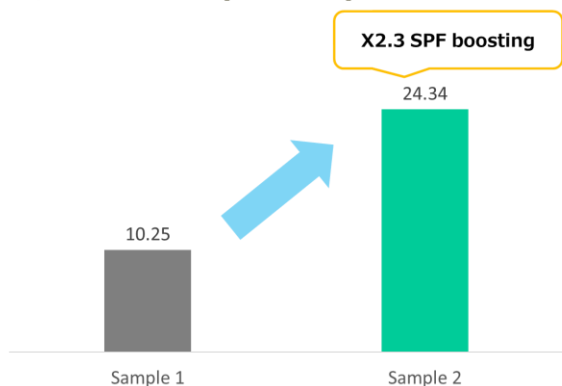
Product name	composition	
MBDP-6	Hydroxybutyric Acid/Hydroxypentanoic Acid Copolymer	100%

2. Production flow



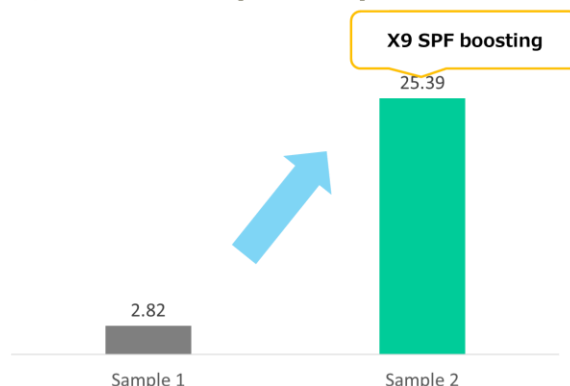
3. SPF boosting

UV W/O emulsion(*In-vitro*)



Ingredient name	Sample 1	Sample 2
Avobenzene	3%	3%
Homosalate	5%	5%
Octyl Salicylate	5%	5%
Octocrylene	10%	10%
MBDP-6	0%	2%

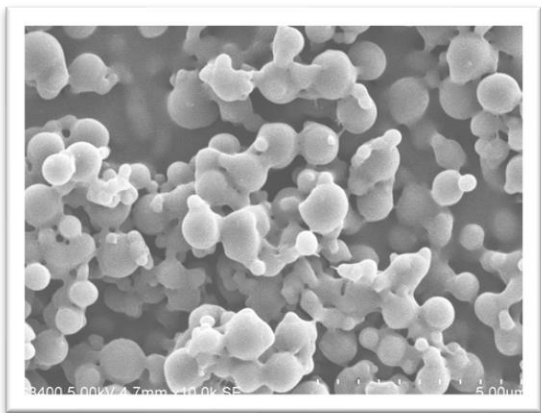
UV O/W emulsion (*In-vitro*)



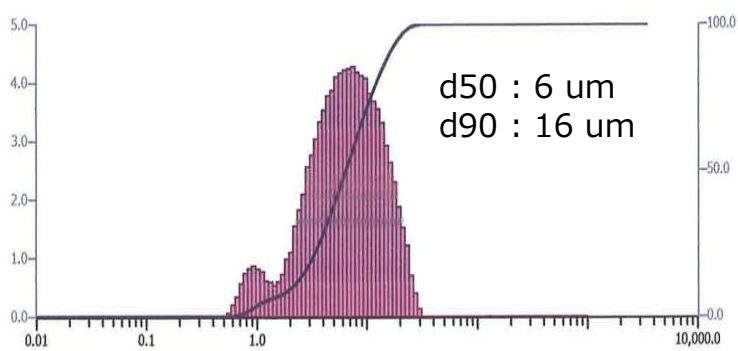
Ingredient name	Sample 1	Sample 2
Avobenzene	3%	3%
Homosalate	10%	10%
Octyl Salicylate	5%	5%
MBDP-6	0%	3%

3. Particle size

- MBDP-6 is non nano and has High potential replacement of microplastic beads.



Microscopy picture of MBDP-6



Particle size distribution

4. Oil absorbance

	Value	Solvent	Method
Refractive index	1.5 min.		
Oil absorbance (ml/100g)	175	Dimethicone	JIS K5101
	167	Jojoba oil	JIS K5101
	156	Olive oil	JIS K5101
	170	Squalane	JIS K5101
	165	Linseed oil	JIS K5101
	154	Oleic acid	JIS K5101
Bulk density (g/ml)	0.14		JIS K5101
Bio-degradability (% of bio-degradability)	91		OECD TG301F

5. Safety information

Test	Result	Dose	Test method
Primary skin Irritation	No skin irritation	100%	OECD TG 439
Eye Irritation	No eye irritation	100%	OECD TG492
Sensitization	No sensitization	100%	SENS-IS assay