

Product Type: Tablet Nutrient

- Consistent and Repeatable Fermentations
- Maintain Microbial Population Viability
- High Quality and Cost Effective
- Produced in an ISO 9001 and GMP Certified facility

Ferm Point™



Why use nutrients?

Research shows that regular nutrient supplementation helps to maintain a strong, viable and healthy microbial population. Sufficient nutrients ensure dependable fermentations and increased fermentation rates and more consistent end product. A complex nutrient supplement provides microbes with the essential micro-nutrients, polypeptides, and amino acids to ensure good cell growth generation after generation. Pitching nutrient alongside healthy, viable microbial populations leads to less stressful conditions and assures consistency and efficiency in fermentation.

What is Ferm Point™

Ferm Point Tablet Nutrients contain a diverse blend of vitamins, minerals, polypeptides, and amino acids that have been identified as essential precursors required to build biomass and drive precision fermentations. Gusmer Enterprises has been formulating fermentation nutrients for many years and has developed Ferm Point Tablet Nutrients based on the latest fermentation research and with the highest quality, bioavailable ingredients for maximum assimilation by the microbes. The product is non-GMO, non-BSE certified and formulated in the USA. The dedicated team of specialized scientists and manufacturing experts at Gusmer Enterprises are available to assist in supporting your use of Ferm Point Tablet Nutrients from ideation to implementation quickly and cost effectively. By employing the use of precision mixing technology, Gusmer Enterprises can design and make new nutrient blends to optimize your process.

Application:

A patented two-step time release tableted nutrient. The unique sustained-release system provides complete supplementation while simulating incremental dosing. One tablet contains a higher percentage of naturally derived nitrogen, vitamins, and minerals to increase biomass potential. The second tablet is formulated to release slowly with a higher percentage of inorganic nitrogen to help maintain cell populations. Ideal for longer fermentations where sustained viability is a must.

Tablet A

Instructions for use:

Add FP110 directly to liquid media at the time of inoculation. Do **NOT** dissolve in water. Use equal amounts, on a weight basis, of both Tablet A and Tablet B. (Please note that tablets have different densities and therefore do not weigh the same. If using less than a full box, please weigh out equal quantities of individual tablets for dosing.

Technical Data:

Addition Level

- Recommended dosing, Large Fermentation use 1 box (10kg / 22 lbs) per 5,500 gal (0.48 g/L).
- Dosage optimization will be required

Storage and Shelf Life

- Store under cool and dry conditions
- Shelf life is 24 months unopened and 6 months opened but sealed package.

Appearance

- Tan colored tablet with yeast-like aroma

Packaging

- 1 kg pack
- 10 kg pack

Vitamins	Specification (mg/100g)
Thiamine (B1)	27.34
Riboflavin (B2)	0.74
Niacin (B3)	2.96
Pantothenic Acid (B5)	0.83
Biotin (B7)	0.01
B6	0.37
Folic Acid (B9)	0.55
Vitamin B12	0
Inositol	27.98

Minerals	Specification (mg/100g)
Calcium	0.02
Iron	0.45
Magnesium	37.07
Phosphorus	15878.15
Potassium	36825
Sodium	742.72
Zinc	0.76

Product Specifications:

Microbiological	Specification
Total Bacteria Count	<15,000 / g
Yeast and Mold	<100 / g
Coliform Organisms	<10 / g
<i>E. coli</i>	Negative
Salmonella	Negative

Base Characteristic	Specification
Total Nitrogen	15.00%
Amino Nitrogen/Total	2.00%
Salt (as Chlorides)	0%
pH (5% Solution)	6.28

Amino Acids	Specification (mg/100g)
Alanine	300.00
Arginine	202.5
Aspartic Acid	397.50
Glutamic Acid	592.50
Glycine	195
Histidine	82.5
Isoleucine	195.00
Cystine	37.50
Leucine	277.50
Lysine	315.00
Methionine	60.00
Phenylalanine	165.00
Proline	150.00
Threonine	180.00
Serine	187.50
Tryptophan	45.00
Tyrosine	150.00
Valine	247.50



Important Note: Gusmer Enterprises, Inc. provides this information to the best of our knowledge. This information does not claim to be complete and Gusmer Enterprises, Inc. cannot assume liability for improper use. All users are advised to test products to meet their specific needs.

Tablet B

Instructions for use:

Add FP110 directly to liquid media at the time of inoculation. Do **NOT** dissolve in water. Use equal amounts, on a weight basis, of both Tablet A and Tablet B. (Please note that tablets have different densities and therefore do not weigh the same. If using less than a full box, please weigh out equal quantities of individual tablets for dosing.

Technical Data:

Addition Level

- Recommended dosing, Large Fermentation use 1 box (10kg / 22 lbs) per 5,500 gal (0.48 g/L).
- Dosage optimization will be required

Storage and Shelf Life

- Store under cool and dry conditions
- Shelf life is 24 months unopened and 6 months opened but sealed package.

Appearance

- Tan colored tablet with yeast-like aroma

Packaging

- 1 kg pack

Vitamins	Specification (mg/100g)
Thiamine (B1)	56.37
Riboflavin (B2)	4.45
Niacin (B3)	28.81
Pantothenic Acid (B5)	5.23
Biotin (B7)	0.07
B6	2.42
Folic Acid (B9)	3.36
Vitamin B12	0.00
Inositol	262.11

Minerals	Specification (mg/100g)
Calcium	25.11
Iron	4.31
Magnesium	158.72
Phosphorus	3736.10
Potassium	2505.06
Sodium	1383.8
Zinc	10.51

Product Specifications:

Microbiological	Specification
Total Bacteria Count	<15,000 / g
Yeast and Mold	<100 / g
Coliform Organisms	<10 / g
<i>E. coli</i>	Negative
Salmonella	Negative

Base Characteristic	Specification
Total Nitrogen	10.00%
Amino Nitrogen/Total	26.00%
Salt (as Chlorides)	1.0%
pH (5% Solution)	5.14

Amino Acids	Specification (mg/100g)
Alanine	2532.00
Arginine	1781.00
Aspartic Acid	3643.00
Glutamic Acid	5265.00
Glycine	1702.00
Histidine	733.00
Isoleucine	1810.00
Cystine	303.00
Leucine	2595.00
Lysine	2798.00
Methionine	572.00
Phenylalanine	1538.00
Proline	1364.00
Threonine	1732.00
Serine	1699.00
Tryptophan	446.00
Tyrosine	1360.00
Valine	2187.00



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