



Concept Catalogue

Food & Beverages that **Boost your Immunity**



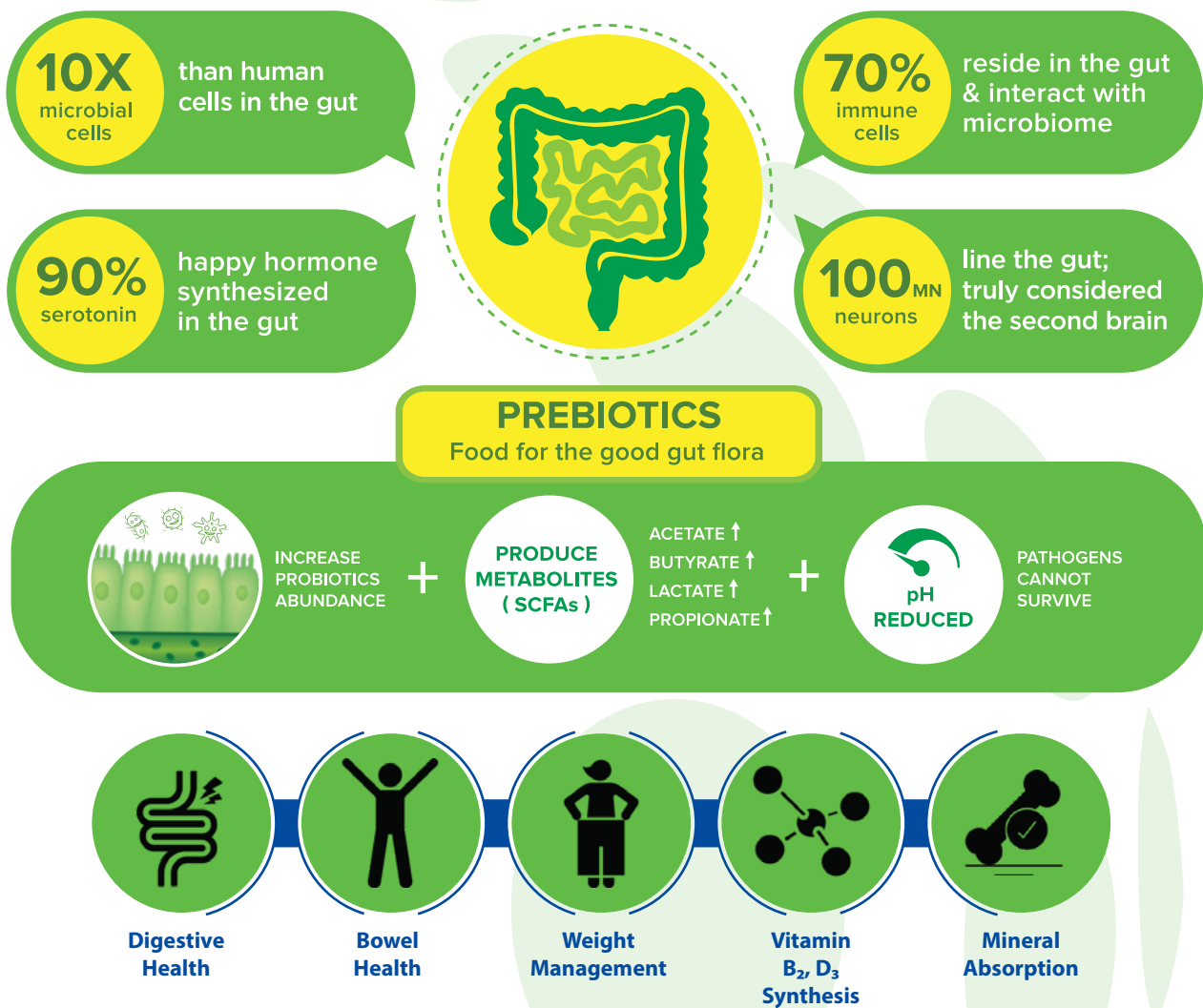
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Introduction

Good nutrition is fundamental to improving immune system which is the body's defense against disease and infection caused by bacteria, viruses and toxins. Adequate and appropriate nutrition is required for all cells to function optimally, including cells in the immune system. A diet high in nutritious foods rich in vitamins and minerals support optimal immune function by providing antioxidants to slow damage of cells caused by free radicals or assisting in T-cell production which are responsible for eliminating infected cells and activating other immune cells, producing cytokines and regulating immune response.

Immunity starts in the gut: Almost 70% of our immune cells live in the gastrointestinal tract (GIT) along with the 100 trillion gut bacteria that make up the gut microbiota. The gut is a major entrance for pathogens, toxins and allergens and one of the major roles of the immune system in the GIT is to distinguish between harmless antigens, such as food, and health hazards. The development of a healthy immune system therefore depends on a healthy gut microbiota, which is directly linked to nutrition.

Dietary interventions targeted at the gut microbiome include probiotics and prebiotics. Probiotics are the live micro organisms which, when consumed in adequate amounts, confer a health benefit of the host. Prebiotics are substrates that are selectively utilized by host micro organisms conferring a health benefit and are generally non-digestible carbohydrates such as fructo-oligosaccharides and Galacto-oligosaccharides. Beneficial microbes break down prebiotic fibers into short chain fatty acids, which have been shown to stimulate immune cell activity. Prebiotic/ probiotic/ synbiotic interventions have shown to improve immune markers in infants, reduction in risk of infections among young children, and decrease in inflammatory processes among elderly.



Micro-nutrients like vitamin A and zinc have reported to support development and maintenance of an effective immune system or in reducing chronic inflammation. They regulate cell division, thus essential for a successful proliferative response within the immune system .

Interest in medicinal plants has burgeoned owing to increased efficiency of new phytodrugs and the growing awareness among consumers regarding natural product consumption. Several herbs or plant extracts hold immune-modulating properties and have been suggested to boost immune function. Foods or extracts from foods such as garlic (*Allium sativum*), green tea (*Camellia sinensis*), ginger (*Zingiber officinale*), purple coneflower (*Echinacea*), black cumin (*Nigella sativa*), etc. have been investigated for their natural immune boosting properties and therapeutic potential for reduction in disease risk. The bioactive metabolites in these foods are effective in balancing and proper functionality of immune system through various modules of immune modification like stimulation and suppression.

The current document shares various food application concepts with prebiotics and plant extracts as ingredients. These applications may be supportive of boosting immunity, when combined with a balanced diet, increased physical activity (including yoga), adequate sleep and a stress free life.

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Immunity Boosting* Golden Milk

A feel good beverage with prebiotic dietary fiber, turmeric and green tea extract that contain anti-oxidant known for improving immune response.



This product is custom made with ingredients (Curcumin and Green Tea Extract) known for their anti-oxidant and anti inflammatory benefits. Contains black pepper that helps in absorbing phyto-actives. *Haldi milk* traditionally known for improving immune response and fighting seasonal cough & cold.

Here we enriched *haldi milk* with ginger & cinnamon. Further to this added prebiotic fiber helps to maintain healthy gut, aid in immunity building, along with improved bone health and better mineral absorption in the body.

Preparation Method

- Mix black pepper, ginger, cinnamon and immunity blend (turmeric and green tea extract premix) and blend.
- Mix above blend with sugar.
- Ensure proper mixing.
- Vanilla powder and above premix, geometrically blended with Milk solid.
- After ensuring uniform mixing, blend transferred and packed.
- Packaging recommendation: 35 gm sachet pack for single use

Product Concept Features

- Enriched with Turmeric and Green tea extract
- Has the Goodness of Cinnamon, Ginger & Pepper
- Contains ingredients with anti-oxidants known to support immune response
- Good for gut and digestive health
- Has reduced sugar
- Is a source of fiber

Functional Benefits

- Great re-constititional properties.
- Improved mouth-feel
- Heat Stable

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	431
Total fat (g)	19.76
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	48.48
- of which maltitol (g)	11.93
Dietary fiber (g)	8.43
- of which FOS (g)	8.43
Protein (g)	19.09

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE(%)
Whole Milk Powder	74.00
FOSSENCE® P95	8.94
Sugar	11.4
Cinnamon	1.71
Ginger	0.57
Vanilla powder	2.86
Black pepper	0.29
Turmeric Extract and Green Tea Extract	0.2
Total	100%

Immunity Boosting Diabetic Friendly Cookies

Fenugreek and Bitter Melon Extract enriched prebiotic cookies



An all round snack between meals for people advised restricted sugar intake – Zero sugar with powerful Indian herbs. Easy to consume cookie format, any time of the day. Complements sugar restricted lifestyle and medication (acts as an adjuvant). It's enriched with *Ashwagandha* which may help in immune response and stress management.

Preparation Method

- Weigh all the ingredients accurately.
- Dissolve salt in little amount of water.
- Mixing- Cream Preparation:
- Fat + FOSSENCE® + Milk powder+ Maltitol blended in Mixer first slowly then at high speed for 3-4 min.
- Add water slowly and blend it for another 3-4 min.
- Add all dry ingredients to cream and mix for 1 to 2 min.
- Sheet and cut the cookies as per required size.
- Bake @ 160°C (top bottom mode) for ~15 Min.

Product Concept Features

- Enriched with Fenugreek and Bitter Melon Extract
- Good for Gut and Digestive health
- Contains Prebiotic Fiber
- Contains *Ashwagandha*, known for Immunity & Stress management

Functional Benefits

- Complete replacement of Sugar
- Improved mouthfeel in cookies
- Masking offnotes and Improved flavour delivery

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	415
Total fat (g)	21.45
- of which saturated fat (g)	1.04
- of which trans fat (g)	13.65
Carbohydrates (g)	41.76
- of which sugars (g)	0.45
Dietary fiber (g)	13.09
- of which FOS (g)	11.65
Protein (g)	1

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE (%)
Whole Wheat Flour	46.35
FOSSENCE® P95	9.00
Fat (Marvo)	22.00
Oats	6.00
Maltitol	15.00
Fenugreek and Bitter Melon Extract Premix	0.15
Ashwagandha	0.10
Baking powder, Salt, flavour, Ammonia	
Total	100%

Immunity Boosting Herbal Soup

Boost your immunity with tasty herbal soup powered with Moringa, Garcinia and prebiotic fiber



A premix recipe for hot and sour soup with natural extracts was prepared. Garcinia and Moringa powder were the natural extracts that were added to the premix. Garcinia leads to loss of appetite thereby helping in weight management whereas Moringa is known for its immunity boosting properties. The recipe has no added sugar since maltitol powder and FOSSENCE® were used as sweeteners.

Preparation Method

- Weigh recipe quantity of Maltitol powder, Potato starch and Fossence® and then mix together.
- Add salt and dehydrated vegetables to the mix.
- Weigh all the other ingredients and add to the remaining mix.
- Ensure homogeneous mixing of all the ingredients.
- During reconstitution, add 15 g of premix powder to 75-80 ml water and shake vigorously.

Product Concept Features

- Enriched with Moringa which is known for immunity
- Good For Gut And Digestive Health
- Contains Prebiotic

Functional Benefits

- Contains no added sugar
- Improved Mouthfeel
- Masking Offnotes And Improved Flavour Delivery

Nutritional Information

NUTRIENTS	QUANTITY^ PER 100 gm
Energy (Kcal)	202
Total Fat (g) - Of Which Saturated Fat (g) - Of Which Trans Fat (g)	0.8 - -
Carbohydrates (g) - Of Which Sugars (g)	71.15 0.8
Dietary Fiber (g) - Of Which Fos (g)	11.65 11.65
Protein (g)	1

^Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

Ingredients	PERCENTAGE (%)
Maltitol Powder	36.00
Fossence® P95	12.33
Potato Starch (Native)	25.00
Dehydrated Vegetables	4.08
Moringa Powder	1.50
Garcinia Powder	3.30
Soya Sauce Powder, Black Pepper, Chilli	17.8
Total	100%

Immunity Boosting Fiber Rusk

Rusk with prebiotic advantage



Rusk is one of the favorite snacks for many consumers. However many consumers avoid it because of sugar content. Here we have developed low sugar prebiotic Rusk with FOSSENCE®. Rusk with added prebiotic FOSSENCE® can be good functional addition to this traditional everyday consumed food. Additionally Ginger, Garlic & Pepper known for many health benefits, and have potential to boost immunity.

Preparation Method

- Mix all the dry ingredients.
- Add water and mix till dough develops.
- Add FOSSENCE® - This is critical that FOSSENCE® has to be added at this stage.
- Mix uniformly to have smooth dough.
- Add fat and mix till get smooth dough.
- Make portions of dough into desired size.
- Allow to proof for 40 to 50 min.
- Bake at 220 °C for desired time.
- Cool it at least for 4 hr & then cut it in to desired size.
- Dry it at 120 °C till it becomes crispy

Product Concept Features

- Contains Garlic, Ginger , Pepper .
- Added with prebiotic fiber
- Good for Gut and Digestive health

Functional Benefits

- Partial replacement of Sugar
- Improved mouthfeel

Nutritional Information

NUTRIENTS	QUANTITY^ PER 100 gm
Energy (kcal)	391.4
Total fat (g)	12.19
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	59.72
- of which sugars (g)	11.43
Dietary fiber (g)	9.40
- of which FOS (g)	6.6
Protein (g)	6.92

^Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE (%)
Maida	65.64
FOSSENCE® P95	7.30
Sugar	10.45
Fat	11.68
Yeast	2.89
Ginger Extract, Pepper & Garlic Powder	1.1
Baking powder & Baking Soda	0.3
Total	100%

Immunity Boosting Energy Drink

Enjoy the good times with quick energy good taste & healthiness of prebiotic fibers



This product is custom made to boost your energy levels along with added prebiotic fibers. Presence of FOSSENCE® keeps the gut in good health and improves digestion. Taurine is known to promote cardiovascular health, insulin sensitivity & electrolyte balance. Prebiotic enriched energy drink is a treat to the gut along with energy boost.

Additionally Vitamin C and Zinc are known for their potential to boost immunity.

Preparation Method

- Gum (Xanthan, Carrageenan) blended with 1-2 gm of sugar powder
- Stevia, Orange flavour and orange extract powder, caffeine taken with small amount of sugar powder and blended.
- Above two blends with rest of sugar, Taurine and citric acid blended further to prepare final premix.
- Serving size – 20gm in 200 ml water

Product Concept Features

- Contains immunity boosting micronutrients Vitamin C and zinc
- Easy on the go nourishment
- Good for Gut and Digestive health
- Contains Prebiotic Fiber

Functional Benefits

- Partial replacement of Sugar
- Improved mouthfeel
- Masking offnotes and Improved flavour delivery
- Great re-constititional properties

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	335.0
Total fat (g)	-
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	94.95
- of which sugars (g)	70.71
Dietary fiber (g)	22.48
- of which FOS (g)	22.48
Protein (g)	-
Vitamin C (mg)	20
Zinc (mg)	3mg

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE (%)
Sugar	59.0
FOSSENCE® P95	23.8
Glucose	6.90
Taurine	4.00
Caffeine	0.30
Vitamin & Mineral Premix	0.50
Orange flavour and extract, Gum	5.5
Total	100%

Immunity Boosting, No Added Sugar Muesli

Wholesome & good for gut snack – the perfect breakfast option with nuts, seeds, berries & prebiotic fiber



This product is custom made to provide beneficial and hard to get micronutrients for our body. It contains protein and prebiotic dietary fiber along with goodness of nut, seeds & berries. Developed muesli also enriched with well known immunity boosting herb *Ashwagandha* and Micronutrients Zinc, Vitamin C, Calcium and Iron. Prebiotic fiber helps to produce short chain fatty acids in gut which helps in immunity building, improved bone health and better mineral absorption in the body. No added sugar prebiotic fiber muesli makes a gut friendly solution for the daily fiber requirement of the diet.

Preparation Method

- Weigh all the ingredients accurately.
- Take FOSSENCE[®], Maltitol powder and add water - heated to make 65-70 brix syrup.
- Take all other dry ingredients and blend it.
- Blended ingredients taken in a coating pan.
- FOSSENCE[®] -Maltitol syrup spray coated in a pan coater machine and dried with hot air. Temperature of ingredients in coating pan maintained below 70 °C.

Product Concept Features

- Contains herbs *Ashwagandha*, minerals (zinc) and vitamin C, known for immunity boosting
- Advantage of Iron & Calcium
- Wholesome snack with goodness of prebiotics.
- Good for Gut and Digestive health
- Contains Prebiotic Fiber
- No added Sugar

Functional Benefits

- Contains no added sugar
- Improved Crunchiness
- Masking offnotes and Improved flavour delivery
- Prolonged crispiness.

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	397.00
Total fat (g)	15.42
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	48.20
- of which sugars	17.02
Dietary fiber (g)	12.95
- of which FOS	5.63
Protein (g)	8.82
Vitamin C (mg)	20
Zinc (mg)	2
Iron (mg)	5
Calcium (mg)	400

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE (%)
Rolled Oats	16.00
Multigrain Flakes	16.00
Corn Flakes	10.00
Almond	15.00
Maltitol	15.00
FOSSENCE[®] P95	6.00
<i>Ashwagandha</i>, Vitamin & Mineral Premix	0.45
Total	100%

Immunity Boosting Garlic Bread

Bread with added prebiotic FOSSENCE® can be good functional addition to this commonly consumed food.



Breads are popular staple food consumed around the world and one of the basic components of traditional diet for many countries. Among different kinds of bread, loaf breads are popular breakfast foods and bread with added FOSSENCE® can act as a fiber source. Additionally Ginger, Garlic & Pepper known for many health benefits, and have potential to boost immunity.

Hence bread with added prebiotic FOSSENCE® and enriched with Indian herbs can be good functional addition to this traditional everyday consumed food.

Preparation Method

- Mix all the dry ingredients.
- Add water and mix till dough develops.
- Add FOSSENCE® - This is critical that FOSSENCE® has to be added at this stage.
- Mix uniformly to have smooth dough.
- Add fat and mix till get smooth dough.
- Make portions of dough into desired size.
- Allow to proof for 40 to 50 min.
- Bake at 220 °C for desired time.
- Cool it at least for 4 hr & then cut it into desired size.

Product Concept Features

- Contains Garlic, Ginger, Pepper and Prebiotic fiber.
- Good for Gut and Digestive health
- Wholesome super healthy version of bread
- Rich in dietary fiber
- Ginger is known to provide immunity boost
- Pepper is known to increase absorption of phyto nutrients

Functional Benefits

- No added sugar
- Improved mouthfeel

Nutritional Information

NUTRIENTS	QUANTITY^ PER 100 gm
Energy (kcal)	256.35
Total fat (g)	1.79
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	49.05
- of which sugars (g)	-
Dietary fiber (g)	8.13
- of which FOS (g)	6.22
Protein (g)	6.75

^Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE (%)
Maida/ All purpose flour	56.55
Ginger Extract, Pepper & Garlic Powder	1.1
FOSSENCE® P95	8.30
Water & Other ingredients	34.05
Total	100%

Immunity Boosting Coffee Premix

Reduced Sugar Coffee Premix is designed to provide refreshment with goodness of prebiotic fiber.



Coffee is one of most common beverage people consume worldwide. It can be a very good matrix to deliver vitamins, minerals & fiber to consumers. In our developed coffee premix by using FOSSENCE®, micronutrients are added which are known to improve immunity, as well as 25% less sugar, which makes it universally attractive.

Self-stable dry format with great reconstitution properties, a perfect healthy alternative to conventional coffee premix.

Preparation Method

- Blend Xanthan gum and Sugar.
- Take all the dry ingredients
- Mix uniformly to above.
- Pack in an appropriate container.

Product Concept Features

- Prebiotic fibers.
- Good for Gut and Digestive health
- Reduced sugar.
- Rich in dietary fiber
- Contains ingredients known to boost immunity

Functional Benefits

- Great re-constitutional properties.
- Improved mouthfeel

Nutritional Information

NUTRIENTS	QUANTITY^ PER 100 gm	
Energy (kcal)	318	
Total fat (g)	0.44	
- of which saturated fat (g)		0.44
- of which trans fat (g)		-
Carbohydrates (g)	57.39	
- of which sugars		35.26
Dietary fiber (g)	10.90	
- of which FOS		10.90
Protein (g)	16.48	
Vitamin C (mg)		20
Zinc (mg)		3

^Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE (%)
Skim Milk Powder	43.28
Sugar	34.12
FOSSENCE® P95	11.54
Vitamin & Mineral Premix	0.5
Other ingredients	10.56
Total	100%

Immunity Boosting Dark Chocolate

No added sugar prebiotic and vitamin enriched chocolate makes the gut feel good and heart filled with fun.



A healthy chocolate to provide scientifically beneficial macronutrient (Prebiotic Fiber in a most convenient way). Enriched with Vitamin blends of D₃, B and C which are known to provide aid to improve immunity. Chocolate are self-stable and a good channel to pass on digestive health without changing the conventional production process. No added sugar prebiotic enriched chocolate makes the gut feel good and heart filled with fun.

Preparation Method

- Mixing of dry ingredients - Temperature (40 - 45°C) time 10 -15 min.
- All the dry ingredients except flavourings & emulsifier are taken.
- Partial quantity of fat/cocoa butter (20 -24 %) is mixed at this stage.
- Pre-refining & Refining
- Conching 1 - (60 -65°C) time 20 -25 min
- Add emulsifier and remaining quantity of fat/cocoa butter.
- Conching 2 – Add emulsifiers and flavourings and conche it for another 20 -25 min.
- Tempering – Bring down temperature of liquid chocolate to 20 – 27°C and heat it again till 32°C.
- Moulding, Cooling, De-moulding & Packing

Product Concept Features

- Enriched with Immunity boosting Vitamin C, D and B
- Good for Gut and Digestive health
- Rich in dietary fiber
- No added sugar.

Functional Benefits

- No change in the process no special equipment required.

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	525.78
Total fat (g)	48.33
- of which saturated fat (g)	28.99
- of which trans fat (g)	-
Carbohydrates (g)	45.54
- of which sugars (g)	0.68
Dietary fiber (g)	16.50
- of which FOS (g)	9.5
Protein (g)	3.97
Vitamin D ₃	400IU
Vitamin C (mg)	15
Vitamin B ₆ (mg)	1mg

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE (%)
Cocoa powder	19.65
Cocoa butter	45.40
Maltitol	24
FOSSENCE® P95	10
Vitamin Premix	0.50
Other ingredients	0.60
Total	100%

Synbiotic Immunity Formulation

Synbiotic formulation with dual prebiotic advantage of FOSSENCE® & GOSSENCE®



Prebiotics like fructo-oligosaccharides and galacto-oligosaccharides (FOSSENCE® & GOSSENCE®) help to enhance the growth of good bacteria (probiotics) in the human gut. By enhancing good microbes in the gut, prebiotics may improve health or support management of conditions like obesity, diabetes, colitis etc. Supplementing probiotics can bring in the desired impacts but would require regular supplementation. While prebiotics can exert health impacts the effects would depend on presence/absence of the microbes responsible for the effects. A blend of probiotic specific for a health condition and a prebiotic that truly complements the probiotic would enhance the sustenance of the probiotic thereby the end effects.

Preparation Method

- Take probiotic with small amount of skim milk powder
- Blend it to make premix
- Take all the dry ingredient along with probiotic premix
- Blend it uniformly
- Pack and stored in cool place.

Product Concept Features

- *Lactobacillus Rhamnosus* known to improve immune response
- Prebiotic FOSSENCE® & GOSSENCE® act synergistically in growing good bacteria in gut.
- Prebiotic fiber help sustained probiotic growing environment in gut
- FOSSENCE® & GOSSENCE® synergy may improve immune response.

Functional Benefits

- Good re-constitutional property, when mixed with milk or water

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	269
Total fat (g)	0.03
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	83.58
- of which sugars (g)	9.71
Dietary fiber (g)	57.29
- of which FOS (g)	32.11
- of which GOS (g)	25.17
Protein (g)	12.35
Probiotic- <i>Lactobacillus Rhamnosus</i>	10 billion (cfu)

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE (%)
FOSSENCE® P95	34.0
GOSSENCE® P70	33.0
Skim Milk Powder	32.5
Probiotic (<i>Lactobacillus R.</i>)	0.5
Total	100%

Immunity Boosting Fruit Punch

Enjoy the refreshing drink with vitamins and prebiotic fibers



Prebiotic and vitamin enriched fruit punch drink may support gut health along with providing refreshment. the gut along with refreshment. Presence of FOSSENCE® keeps the gut in good health and improves digestion. Additionally Vitamin C and B known for potential to boost immunity.

Preparation Method

- Take required quantity of water and heat it up to 60°C
- Mix FOS with sugar/maltitol and add to water.
- Add mango pulp
- Heat water up to 65°C and Homogenize at 2000 psi (1st stage) 500 psi (2nd stage) (only if mango pulp is added)
- Cool to room temperature
- Add sodium citrate, flavour, colour
- Add citric acid as per taste requirement , maintaining pH between 4.4 to 4.5
- pH should not go below 4.4 due to stability issues of FOS
- Fill in bottles and seal
- Retort sterilize at 98°C for 2 min
- Cool and store

Product Concept Features

- Enriched with Vitamins & Prebiotic fibers
- Good for Gut and Digestive health
- Reduced Sugar
- High dietary fiber

Functional Benefits

- Easily soluble & No process change

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	39.0
Total fat (g)	-
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	12.60
- of which sugars	7.01
Dietary fiber (g)	5.59
- of which FOS	5.59
Protein (g)	3.97
Vitamin C (mg)	5
Vitamin B ₆ (mcg)	0.1
Vitamin B ₁₂ (mcg)	0.25

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE(%)
Water	86.08
Sugar	6.70
FOSSENCE® 90	6.00
Sodium citrate & Sodium Citrate	0.22
Mango pulp	0.60
Mango flavour & Other Ingredients	0.40
Vitamin C, B ₆ , B ₁₂ - Premix	0.50
Total	100%

Immunity Boosting Prebiotic Gummies

A fun way of delivering health! A tasty format for delivering prebiotics and micronutrient.



This product is custom made to provide the most scientifically beneficial and hard to get macronutrient (prebiotic fiber).

Prebiotics are known to aid in immunity building, improved bone health and better mineral absorption in the body. Vitamin D₃, C and B₆ are known micronutrients to boost immunity. Gummies are self-stable and a good channel to pass on digestive health without changing the conventional production process. Reduced Sugar prebiotic enriched gummies makes the gut feel good and heart filled with fun.

Preparation Method

- Syrup preparation - Heating of water in a kettle, addition of sucrose into water.
- Melting of sucrose and then add corn syrup & FOSSENCE®. Addition of sodium citrate in syrup then add gelling agent slurry
- Gelling agent slurry preparation: In a pectin tank add pectin, gelling agent 1, gelling agent 2, sucrose in a hot water at 75°C (in the ratio of 1:10) Cooking - Cooking of syrup till brix 65°C for all flavors. After taking brix immediately stop heating and add flavor. Then add color solution.
- Preparation of color solution – Citric acid+ color + Spices + water
- Depositing - manual transfer of cooked mass to depositing Hopper with SS bucket.
- Cooling - Cooling in cooling tunnel. (Temp.: below 20°C)
- Sorting of deposited gummies – Collect gummies in the trays and sorting.

Product Concept Features

- Contains Vitamins known for Immunity
- Contains prebiotic fibers
- Supports gut health and digestion
- Reduced Sugar

Functional Benefits

- Improved mouth feel owing to positive interaction between FOS and gelling agents.
- No change in the process no special equipment required.
- Heat stable.

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	180.43
Total fat (g)	0.02
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	54.74
- of which sugars (g)	44.47
Dietary fiber (g)	7.46
- of which FOS (g)	7.46
Protein (g)	0.02
Vitamin D ₃	400IU
Vitamin C (mg)	15
Vitamin B ₆ (mg)	1mg

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE(%)
Sucrose	28.29
Corn syrup	20.39
FOSSENCE® L95	10.00
Vitamin Blend (D₃, B complex and C)	0.5
Other ingredients	40.8
Total	100%

Herbal Immunity Syrup

Perfect blend of three powerful herbs *Ashwagandha*, *Tulsi* & *Ginger* with prebiotic goodness known to boost immunity, digestion and fight cough and cold



The product provides power-packed benefits of selected herbal actives along with prebiotics and no added sugar. Presence of *Ashwagandha* is known for stress relief, ginger is effective against cold & nausea, *Tulsi* is a proven herb to manage cough & cold and FOSSENCE® adds on the prebiotic advantages. Prebiotic Good Gut Mixed Herb Syrup contains ingredients known to help improve immunity & digestive health.

Preparation Method

- Weigh Ginger extract and *Ashwagandha* extract in a vessel accurately.
- Add FOSSENCE® L95 syrup to it.
- Drop wise tulsi extract liquid added with stirring.
- Water added to make final brix 68.
- Warmed in water bath at 60 °C with mixing.
Final brix should be ~70 brix.
- Stored in a glass bottle.

Product Concept Features

- Well known Indian medicinal herbs- *Ashwagandha*, *Ginger* & *Tulsi* known to boost immunity.
- Good for Gut and Digestive health
- Herbs containing antioxidant known for relieving stress
- No added sugar

Functional Benefits

- Similar viscosity compared to sugar or honey.
- Masking off notes & improved flavour delivery

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	135
Total fat (g)	1.53
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	68.09
- of which sugars (g)	3.96
Dietary fiber (g)	64.68
- of which FOS (g)	64.68
Protein (g)	0.07

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE(%)
<i>Ashwagandha</i>	0.75
<i>Tulsi</i>	1.00
Ginger	1.00
FOSSENCE® L95	97.25
Total	100%

Immunity Boosting Nutribar

Wholesome & good for gut snack – the perfect grab on the go.

Protein rich bar with goodness of prebiotics & herbs known for Immunity.



This product is custom made to provide nutrients for our body. It contains protein and prebiotic dietary fiber from FOSSENCE®. Presence of Green tea extract enriches it with antioxidant and *Ashwagandha* adds the advantage of boosting immunity. The nutrition bar is self-stable, travel friendly, ready to grab and easy to eat food. It makes a perfect solution to the fast changing urban lifestyle. This can be produced without changing the conventional production process. Prebiotic, Good for Gut, Herbal Protein bar makes your gut feel good.

Preparation Method

- Mix protein isolate & citric acid (fine powder) with the vegetable oil.
- Make a uniform blend.
- Blend all the dry ingredients and keep ready.
- Mix protein isolate blend with dry ingredients blend.
- Heat FOS, Maltitol, glycerine, caramel blend till temperature reaches to desired level of consistency.
- Add dry ingredients blend in the hot syrup.
- Mix it until the syrup is uniformly coated.
- Sheet this mixture at a thickness of 1.5 to 2.0 cm while it is enough hot.
- Allow the sheet to cool down to room temperature.
- Cut it in to desired size and shape with sharp knife.

Product Concept Features

- Contains *Ashwagandha* known to boost immunity
- Contains green tea, which acts as anti-oxidant
- No added sugar
- Contains Prebiotic fiber
- Goodness of Naturals

Functional Benefits

- Good binding ability of FOSSENCE®
- Masking off-notes & improved flavour delivery.
- Heat Stable
- No change in the process

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	385.51
Total fat (g)	20.63
- of which saturated fat (g)	3.86
- of which trans fat (g)	-
Sodium (mg)	19.84 mg
Carbohydrates (g)	62.87
- of which sugar (g)	2.22
Dietary fiber (g)	11.98
- of which FOS (g)	6.96
Protein (g)	19.59

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE(%)
Peanuts	42.28
Whey protein concentrate (WPC80%)	10.38
FOSSENCE® L95	9.98
Maltitol Syrup M80	23.96
Ashwagandha	0.75
Other ingredients	13.4
Total	100%

Immunity Boosting Malt Drink

A pleasant tasting nourishment drink rich in micro-nutrients and prebiotic fiber known to enhance immune response and digestive health



Product Concept Features

- Contains micronutrients Vitamin D and Zinc
- Contains ingredients known to boost immunity
- Contains Prebiotic fibers FOSSENCE® & GOSSENCE® which act synergistically in growing good bacteria in gut.
- Prebiotic fibers are known to boost immune response.
- Contains High Fiber

Functional Benefits

- Good reconstitution properties.
- Improved mouth-feel
- No change in the process no special equipment required.

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	394.2
Total fat (g)	8.37
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	44.46
- of which sugars (g)	9
Dietary fiber (g)	8
- of which FOS (g)	3.8
- of which GOS (g)	2.8
Protein (g)	33.33
Vitamin D ₃	400IU
Zinc (mg)	20

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE(%)
Barley malt	30
Whole milk powder (Milk solids)	20.4
Whey protein isolate	27.5
Sugar	9
FOSSENCE® P95	4
GOSSENCE® P70	4
Vitamin & Mineral Premix	0.5
Other ingredients (Silica, Gum, Emulsifier)	4.6
Total	100%

This product is custom made to provide beneficial macronutrients for our body. It contains prebiotic dietary Fiber, Vitamin D₃ and Zinc known to improve immune response. Prebiotic fibers are known to aid in immunity building, improved bone health and better mineral absorption in the body. This can be produced without changing the conventional production process. This Malt Drink Powder makes a gut friendly solution for the daily fiber in the diet.

Preparation Method

- Take minimal quantity of silica, add and thoroughly mix colorant and flavor in a bubble shaped bottle
- To this add soy lecithin, di-potassium phosphate, k-carrageenan, salt, xanthan, guar gum and mix to uniformity.
- Take sugar in octagonal blender and to this add the blend of flavor and other ingredients and mix to homogeneity.
- To this add FOSSENCE® & GOSSENCE® powder and silica and mix to uniformity.
- Add milk powder and whey protein and mix to achieve free flowing uniform premix powder.
- Reconstitution: Take 140 mL of water in a blender bottle and add 60 g of premix .

Immunity Boosting Prebiotic Shot

Prebiotic shots with Immunity boosting ingredients Vitamin C & Zinc.



Prebiotic shots is excellent format to get your daily dose of fiber and also get goodness of Vitamins C & Zinc that are known to support immunity / immune response

Preparation Method

- Weigh all the dry ingredients (Vitamin Premix, Mineral premix and flavour)
- Mix and keep as blend
- Take FOS syrup (L95) and add the dry blend slowly over syrup
- Blend it in blending equipment slowly
- Ensure proper mixing
- Pack in 10 ml pack

Product Concept Features

- Contains Vitamins C and Zinc known for Immunity
- Good for Gut and Digestive health
- Contains Prebiotic fiber

Functional Benefits

- Can be added to your favourite drinks
- Easily soluble

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	159
Total fat (g)	-
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	99.40
- of which sugars (g)	6.81
Dietary fiber (g)	92.59
- of which FOS (g)	92.59
Protein (g)	-
Vitamin C (mg)	200
Zinc (mg)	30

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE(%)
FOSSENCE® L95	99.40
Vitamin Premix	0.25
Mineral Premix	0.25
Flavour Strawberry	0.10
Total	100%

Immunity Boosting Protein Supplement

Enrich your daily protein drink with dual prebiotic fiber advantage and multi-vitamins.



Multi-vitamin protein mix is custom made solution for your all-round strength building. Enriched with prebiotic fiber for a healthy gut and vitamins known to help improve immune response.

Preparation Method

- Mix protein isolate & citric acid (fine powder) with the vegetable oil.
- Make a uniform blend.
- Blend all the dry ingredients and keep ready.
- Mix protein isolate blend with dry ingredients blend.
- Heat FOS, Maltitol, glycerine, caramel blend till temperature reaches to desired level of consistency.
- Add dry ingredients blend in the hot syrup.
- Mix it until the syrup is uniformly coated.
- Sheet this mixture at a thickness of 1.5 to 2.0 cm while it is enough hot.
- Allow the sheet to cool down to room temperature.
- Cut it in to desired size and shape with sharp knife.

Product Concept Features

- Contains micronutrients that are known to boost immunity
- Easy on the go nourishment
- Contains Prebiotic fiber act synergistically in growing good bacteria in gut.

Functional Benefits

- Masking off-notes & improved flavour delivery.
- Improved mouth-feel
- Good re-constitutional properties

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	322
Total fat (g)	0.01
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	13.77
- of which maltitol (g)	0.51
Dietary fiber (g)	8.67
- of which FOS (g)	5.7
- of which GOS (g)	2.2
Protein (g)	70.92
Vitamin D ₃	400IU
Vitamin C (mg)	15
Vitamin B ₆ (mg)	1

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE(%)
Whey protein concentrate (WPC80%)	75
Skimmed milk powder	8.5
FOSSENCE® P95	6
GOSSENCE® P70	3.18
Vitamin Blend (Vitamin D ₃ , B ₆ and C)	0.5
Other ingredients	6.82
Total	100%

Immunity Boosting Lemon Iced Tea

Prebiotic Lemon tea with Immunity boosting Vitamin C & B.



Prebiotic ice tea supports to refresh yourself with added dietary fiber and provides goodness of vitamins B and C known for supporting immune response.

Preparation Method

- Weigh recipe quantity of water and add tea powder, mix well
- Weigh FOSSENCE®, lemon juice and flavour, add them to the above mix.
- Ensure proper mixing
- Add citric acid as per taste requirement, maintaining pH between 4.4 to 4.5
- pH should not go below 4.4 due to stability issues of FOSSENCE®
- Fill in bottles and seal
- Retort sterilize at 98 °C for 2 min
- Cool and store

Product Concept Features

- Contains Vitamin C and Vitamin B6 known for Immunity
- Good for gut & digestive health.
- Contains Prebiotic fiber

Functional Benefits

Nutritional Information

NUTRIENTS	QUANTITY [^] PER 100 gm
Energy (kcal)	28
Total fat (g)	-
- of which saturated fat (g)	-
- of which trans fat (g)	-
Carbohydrates (g)	8.8
- of which sugars (g)	5.26
Dietary fiber (g)	3.54
- of which FOS (g)	3.54
Protein (g)	-
Vitamin C (mg)	200
Vitamin B ₆ (mg)	1

[^]Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017

Recipe

INGREDIENTS	PERCENTAGE(%)
Water	89.60
Tea powder	0.24
FOSSENCE® P95	3.80
Sugar	5.00
Lemon Juice	0.71
Flavour Lemon	0.05
Vitamin Premix	0.50
Total	100%

Immunity Boosting Nutrient Rich Water

No added sugar prebiotic fruity flavoured water



Just replace your regular packaged water with this prebiotic water and you will get all the goodness of Vitamins known for immune response.

Presence of FOSSENCE® keeps the gut in good health and supports digestive health. Additionally Vitamins and electrolytes known for potential to boost immunity and energy respectively.

Preparation Method

- Weigh all the ingredients accurately.
- Add fruit concentrate, FOSSENCE® liquid, flavor and vitamin premix.
- After mixing add water
- Mix it to make homogenous form.
- Fill in suitable packaged form (bottle) and store



Product Concept Features

- Contains Prebiotic Fibers
- Contains Vitamins & minerals for boosting immunity.
- Good for gut & digestive health.
- No added Sugar



Functional Benefits

- No process change as FOSSENCE® is easy to dissolve



Nutritional Information

NUTRIENTS	QUANTITY^ PER 100 gm	
Energy (kcal)	24.71	
Total fat (g)	-	
- of which saturated fat (g)	-	
- of which trans fat (g)	-	
Carbohydrates(g)	8.55	
- of which sugars		3.18
Dietary fiber (g)	5.13	
- of which FOS		5.13
Protein(g)	-	
Sodium (mg)	1.5	
Potassium (mg)	35.9	
Calcium (mg)	4.05	
Iron (mg)	0.08	
Thiamin B ₁ (mg)	0.48	
Riboflavin B ₂ (mg)	0.52	
Niacin B ₃ (mg)	6.4	
Vitamin B ₆ (mg)	0.68	
Folate (mcg)	0.16	
Vitamin B ₁₂ (mcg)	0.96	
Biotin (mcg)	12	
Pantothenic Acid (mg)	2	
Vitamin C (mg)	36	

^Theoretical nutrient calculations, as per the IFCT, ICMR-NIN, 2017



Recipe

INGREDIENTS	PERCENTAGE(%)
Natural Mineral Water	89.63
Clarified fruit concentrate (Pineapple) - 70°brix	5
FOSSENCE® L95	5.3
Vitamin & Mineral premix	0.06
Flavour	0.01
Total	100%

About Us

The Nutritional Science division of Tata Chemicals Ltd, under the brand Tata NQ, offers nature-inspired and science-backed ingredient and formulation solutions catering to human and animal health. The flagship product lines of Tata NQ — FOSSENCE® and GOSSENCE® — are Prebiotic dietary fibers that promote the growth of gut microbiome, and improve digestive & immune health.

Tata Chemicals is among the few manufacturers of prebiotics using whole-cell fermentation and in-house developed patented technology.

Tata NQ is supported by a multidisciplinary team of scientists working on microbiome science (the core science platform) and fermentation technology (the manufacturing platform).

We have numerous publications and patents to our name and are actively involved in building the scientific understanding of microbiome science, especially microbiota in the gut, and the benefits rendered by them.

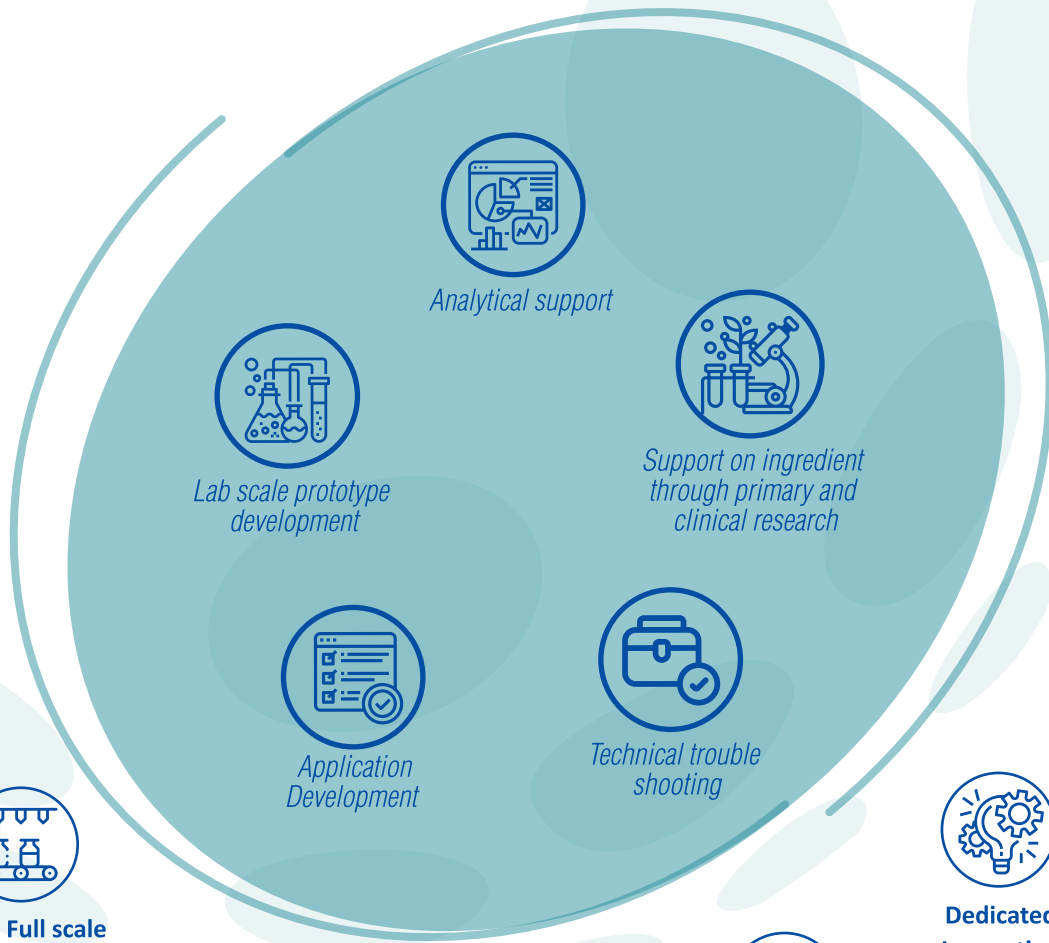
Tata Chemicals has formed research alliances with academia and research institutions in order to build on their shared strengths in research and innovation. We are actively working with various universities and research bodies to further develop the understanding of microbiome and its effect. Tata Chemicals has also advanced in mapping of the Indian microbiome and the effect of prebiotics on the human microbiome through independent large scale studies.

Tata NQ manufactures its products in a state-of-the-art FSSC 22000 certified facility that is designed to comply with global 21 CFR infant nutrition norms. With a traceable supply chain and automated production system, this facility ensures quality is monitored at every step.

We pride ourselves for furthering the 'Responsible Manufacturing' agenda of TCL with our commitment to sustainability demonstrated by zero fossil fuel usage, lower carbon emissions, usage of solar energy for plant operations which provides a substantial part of the power required, rain water harvesting to combat water stress and zero liquid discharge.

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manufacturer
of FOS & GOS
Prebiotics in
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**State-of-art
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facility**



**US GRAS
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**Certification
FSSC 22000,
Halal, Kosher**



**Dedicated
Innovation
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A more than 160 billion \$ group, employing more than 700,000 people across the globe, with a legacy of more than 150 years.
Present in 100 + countries across 6 continents



The global nutritional solution provider,
from Tata Chemicals.



TATA CHEMICALS LIMITED

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