

13 Department of Science and Technology – Cordillera Administrative Region (CAR) Regional Standards and Testing Laboratory

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Field of Testing : Chemical Testing and
Microbiological Testing

Chemical Testing

Product	Specific Test	Method Reference
I. Foods		
.01 Cereal and cereal products		
1. Breakfast Cereals	Ash	Gravimetric, AOAC 20th ed. 2016
2. Cereal/cereal grains	Moisture	Air-Oven, AOAC 20th ed. 2016
3. Cultured seeds and grains	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
4. Soya flours concentrates and isolates	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
5. Flour, corn meal, corn grits, semolina	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
6. Frozen entrees containing rice or corn flour	Carbohydrates	
7. Soy protein	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
8. Tofu	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016

9. Pasta products and noodles (e.g., rice paper, rice vermicelli, soybean pastas and noodles)		
10. Starch		
.02 Nuts and nut products		
1. Peanut butter and other nut butters	Ash	Gravimetric, AOAC 20th ed. 2016
	Moisture	Air-Oven, AOAC 20th ed. 2016
	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
	Carbohydrates	
	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016
.03 Dairy products		
1. All cheese made from pasteurized milk (cottage cheese, soft & semi-solid cheese)	Ash	Gravimetric, AOAC 20th ed. 2016
2. Processed cheese spread	Moisture	Air-Oven, AOAC 20th ed. 2016
3. Ice cream and sherbet plain and flavoured	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
4. Ice cream with added ingredients	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
5. Flavored ice	Total Energy	

6. Milk powders (whole, nonfat or filled milk, buttermilk, whey & whey protein concentrates) 7. Sweetened condensed milk 8. Liquid Milk (evaporated or Ready-To-Drink) and Cream (Ultra-Heat Temperature/Sterilized) 9. Pasteurized milk 10. Pasteurized cream 11. Yogurt and other fermented milk	Carbohydrates	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016
.04 Meat and meat products		
1. Dried animal products 2. Meat paste and patè (heat treated) 3. Cold cuts, frozen and chilled hotdogs, corned beef, luncheon meat 4. Packaged cooked cured/salted meat (ham, bacon) 5. Fermented comminuted meat, not cooked (dry and semi-dry fermented sausages) 6. Cooked poultry meat, frozen to be re-heated before eating (e.g., prepared frozen meals) 7. Cooked poultry meat, frozen, ready-to-eat (e.g., turkey rolls) 8. Cured/smoked poultry meat	Ash	Gravimetric, AOAC 20th ed. 2016
	Moisture	Air-Oven, AOAC 20th ed. 2016
	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
	Carbohydrates	
	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016
9. Dehydrated poultry products	Ash	Gravimetric, AOAC 20th ed. 2016

10. Fresh/frozen raw chicken (during processing)	Moisture	Air-Oven, AOAC 20th ed. 2016
	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
	Carbohydrates	
11. Meat products in hermetically sealed containers	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016
.05 Fish and fish products, including molluscs, crustaceans, and echinoderms		
1. Fresh and frozen fish and cold-smoked	Ash	Gravimetric, AOAC 20th ed. 2016
	Moisture	Air-Oven, AOAC 20th ed. 2016
2. Pre-cooked breaded fish	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
3. Frozen cooked crustaceans	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
4. Cooked, chilled & frozen crabmeat	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
	Carbohydrates	

5. Fish and shellfish products in hermetically sealed containers	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
6. Smoked, dried, fermented, and/or salted fish and fish products	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016
.06 Sugar and sugar products		
1. Refined and raw sugar	Ash	Gravimetric, AOAC 20th ed. 2016
2. Brown sugar	Moisture	Air-Oven, AOAC 20th ed. 2016
3. Sugar solutions and syrups	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
4. Other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
5. Honey	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
	Carbohydrates	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016 Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016 2,6-dichloroindophenol Titrimetry, AOAC Method 967.21, AOAC 20th ed. 2016 Titrimetry, AOAC Method 930.35, AOAC 20th ed. 2016
	Sodium	
6. Table-top sweeteners, including those containing high-intensity sweeteners	Total Sugar	
	Vitamin C	
	Acidity	
.07 Confectioneries		
1. Cocoa powder	Ash	Gravimetric, AOAC 20th ed. 2016
2. Chocolate products	Moisture	Air-Oven, AOAC 20th ed. 2016

<p>3. Chocolate confectioneries (chocolate bars, blocks, bonbons)</p> <p>4. Sugar confectioneries (hard and soft candies, toffees, caramel, fondants, creams, nougats and pastes)</p>	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
	Carbohydrates	
	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016
.08 Fruits, jams, and other fruit products		
1. Frozen fruits	Ash	Gravimetric, AOAC 20th ed. 2016
2. Coconut (desiccated)	Moisture	Air-Oven, AOAC 20th ed. 2016
3. Sun dried fruits	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
4. Jams, jellies, marmalades	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
5. Fruit-based spreads	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
6. Candied fruit	Carbohydrates	
7. Fruit preparations (pulp, purees, fruit toppings, and coconut milk)	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
8. Fermented fruit products	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016
9. Fruit fillings for pastries		
.09 Vegetable and vegetable products		

1. Frozen vegetables	Ash	Gravimetric, AOAC 20th ed. 2016
2. Dried vegetables	Moisture	Air-Oven, AOAC 20th ed. 2016
3. Vegetables in vinegar, oil, brine, or soybean sauce	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
4. Canned or bottled (pasteurized) or retort pouch vegetables	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
	Carbohydrates	
5. Fermented vegetable	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
6. Cooked or fried vegetables	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016
.10 Alcoholic Beverages		
1. Beer and malt beverages	Alcoholic Content	Refractometry, Method 920.58, AOAC 20th ed. 2016
2. Cider and perry		
3. Grape wines		
4. Wines other than grapes		
5. Mead		
6. Distilled spirits containing more than 15% alcohol	Methanol Content	Colorimetry, Method 958.04, AOAC 20th ed. 2016
7. Aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low alcoholic refreshers		
.12 Fruit juices, drinks and concentrates		
1. Fruit and vegetable juices	Ash	Gravimetric, AOAC 20th ed. 2016
2. Fruit and vegetable nectars	Moisture	Air-Oven, AOAC 20th ed. 2016

3. Water-based flavoured drinks (Carbonated, Non-carbonated, Concentrates (liquid or solid)) 4. Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
	Carbohydrates	
	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016
.20 Other food products		
	Ash	Gravimetric, AOAC 20th ed. 2016
	Moisture	Air-Oven, AOAC 20th ed. 2016
	Crude Fat	Soxhlet/Solvent Extraction with Acid Hydrolysis, AOAC 20th ed. 2016
	Crude Protein	Kjeldahl, AOAC 20th ed. 2016
	Total Energy	by Computation, Philippine Food Composition Tables by DOST-FNRI, 1997
	Carbohydrates	
	Sodium	Atomic Absorption Spectrophotometric, AOAC 20th ed. 2016
	Total Sugar	Lane-Eynon Constant Volumetric Method, AOAC 20th ed. 2016
.21 Vitamins in foods		

	Vitamin C	2,6-dichloroindophenol Titrimetry, AOAC Method 967.21, AOAC 20th ed. 2016
.24 Sauces, spices, and condiments		
1. Dry mixes for soup and sauces 2. Yeast 3. Spices and herbs 4. Salad dressing (e.g., Mayonaise, thousand island, Mustard) 5. Vinegars 6. Salt 7. Sauces and like products (e.g., fish sauce) 8. Soybean-based seasonings and condiments (e.g., soy sauce)	Acidity	Titrimetry, AOAC Method 930.35, AOAC 20th ed. 2016
VI. Water		
.01 Bottled water		
	pH	pH Meter, SMEWW Method 4500-H+, 23rd ed. 2017
	Turbidity	Turbidimeter, SMEWW Method 2130, 23rd ed. 2017
	Total Dissolved Solids (TDS)	(TDS Dried at 180°C), SMEWW Method 2540C, 23rd ed. 2017
	Total Hardness as CaCO ₃	Titrimetry, SMEWW Method 2340C, 23rd ed. 2017
	Chlorides	Argentometry, SMEWW Method 4500 Cl- B., 23rd ed. 2017
	Nitrate	Ultraviolet Spectrotometric Screening Method, SMEWW Method 4500-NO ₃ - B., 23rd ed. 2017

	Calcium	Titrimetry, SMEWW Method 3500-Ca B, 23rd ed. 2017
	Magnesium	Calculation, SMEWW Method 3500-Mg B, 23rd ed. 2017
	Sulfate	Turbidimetry, SMEWW Method 4500-SO ₄ -E, 23rd ed. 2017
	Mercury	Direct Mercury Analyzer, Thermal Decomposition Amalgamation, Atomic Absorption Spectrophotometric Method
	Lead	Electrothermal Atomic Absorption Spectrophotometric Method SMEWW Method 5220B

Microbiological Testing

Product	Specific Test	Method Reference
I. Foods		
1.0 Milk and Dairy products		
01.1 Milk powder (e.g whole nonfat or filled milk, whey & whey protein concentrates) (intended for children more than 36 months of age and adults)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
01.2 Sweetened condensed milk	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	Yeast and Mold Counts	Spread Plate Method US FDA BAM

01.4 Pasteurized milk	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
01.5 Pasteurized cream	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
01.6 Yogurt and other fermented milk	Coliform Count	Petrifilm AOAC 991.14
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate MethodUS FDA BAM
01.7 Cheese and cheese products; e.g., Cottage cheese, soft and semi-soft cheese (moisture > 39%, pH > 5)	Coliform Count	MPN Method US FDA BAM
	<i>E. coli</i> Count	MPN Method US FDA BAM
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition

01.8 Processed cheese spread	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
01.9 All raw milk cheese; raw milk unripened cheese with moisture > 50%, pH > 5.0	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
02.0 Fats and oils, and fat emulsions		
02.1 Butter (whipped, pasteurized)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
	Yeast and Mold Counts	Spread Plate Method US FDA BAM
02.2 Butter made from unpasteurized milk or milk products	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>E. coli</i> Count	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM

02.3 Margarine	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Faecal Coliform	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
	Yeast and Mold Counts	Spread Plate Method US FDA BAM
03.0 Edible ices, including sherbet and sorbet		
03.1 Ice cream and sherbet (plain and flavoured)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
03.2 Ice cream with added ingredient (nuts, fruits, cocoa etc.)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM

03.3 Flavored ice (e.g., Ice candy)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	US FDA BAM MPN Method
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	Yeast and Mold Counts	Spread Plate MethodUS FDA BAM
04.0 Confectioneries		
04.1 Cocoa powder	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	MPN Method US FDA BAM
	Mold Count	US FDA BAM Spread Plate Method
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
04.2 Chocolate products	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	MPN Method US FDA BAM
	Mold Count	US FDA BAM Spread Plate Method
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition

04.3 Chocolate confectioneries (chocolate bars, blocks and bonbon)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	MPN Method US FDA BAM
	Mold Count	US FDA BAM Spread Plate Method
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
04.4 Sugar confectioneries (hard and soft candies, toffees, caramel, fondants, creams, nougats and pastes)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	MPN Method US FDA BAM
	Mold Count	Spread Plate Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
05.0 Fruits and vegetables, nuts and seeds		
05.1 Frozen vegetables and fruits (pH >4.5)	<i>E. coli</i> Count	MPN Method US FDA BAM
05.2 Fermented fruits and vegetables, Ready to Eat (e.g., Kimchi)	Coliform Count <i>E. coli</i> Count	MPN Method US FDA BAM
	Yeast and Mold Counts	Spread Plate Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM

05.5 Coconut (desiccated)	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
05.6 Peanut Butter & other Nut Butters	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
05.7 Sun dried fruit	<i>E. coli</i> Count	MPN Method US FDA BAM
	Mold Count	Spread Plate Method US FDA BAM
06.0 Egg and egg products		
06.1 Pasteurized egg products (liquid, frozen or dried)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	Yeast and Mold Counts	Spread Plate Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
07.0 Cereals and cereal products		
07.1 Breakfast cereals	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	Mold Count	Spread Plate Method US FDA BAM
	Yeast Count	Spread Plate Method US FDA BAM
07.2 Cereal/cereal grains	Aerobic Plate Count	Pour Plate Method US FDA BAM

	Coliform Count	Petrifilm AOAC 991.14
	<i>E. coli</i>	MPN Method US FDA BAM
	Yeast and Mold Counts	Spread Plate Method US FDA BAM
07.3 Cultured seeds and grains	Coliform Count	Petrifilm AOAC 991.14
	<i>E. coli</i>	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
07.4 Soya flours concentrates and isolates	Mold Count	Spread Plate Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
07.5 Flour, corn meal, corn grits, semolina	Coliform Count	Petrifilm AOAC 991.14
	Mold Count	Spread Plate Method US FDA BAM
	Yeast and yeastlike fungi	Spread Plate Method US FDA BAM
07.7 Soy protein	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>E. coli</i>	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition

	Yeast and Mold Counts	Spread Plate Method US FDA BAM
07.8 Tofu	<i>E. coli</i>	MPN Method US FDA BAM
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
07.9 Pasta products and noodles Uncooked (wet and dry)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	Yeast and Mold Counts	Spread Plate Method US FDA BAM
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
07.10 Starch	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	Yeast and Mold Counts	Spread Plate Method US FDA BAM
08.0 Bakery Products		
08.1 Frozen bakery products (ready to eat) with low acid or high a_w fillings or toppings	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM

08.2 Frozen bakery products (to be cooked) with low acid or high a_w fillings or toppings (e.g. meat pies and pizzas)	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
08.3 Frozen and refrigerated dough (Chemically leavened)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	Mold Count	Spread Plate Method US FDA BAM
	Yeast and yeastlike fungi	US FDA BAM Spread Plate Method
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
08.4 Frozen and refrigerated dough	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	Mold Count	Spread Plate Method US FDA BAM
	Yeast and yeastlike fungi	Spread Plate Method US FDA BAM
08.5 Baked goods (microbiologically sensitive types e.g., containing eggs and dairy products)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14

	Yeast and Mold Count	Spread Plate Method US FDA BAM
08.6 Coated or filled, dried shelf-stable biscuits	Coliform	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
09.0 Ready-to-eat savouries		
09.1 Snacks foods	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	Mold Count	Spread Plate Method US FDA BAM
	Yeast and yeastlike fungi	Spread Plate Method US FDA BAM
10.0 Meat and meat products		
10.1 Dried animal products	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	US FDA BAM Spread Plate Method
10.2 Meat paste and pate' (heat treated)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	US FDA BAM Spread Plate Method

10.3 Cold cuts, frozen and chilled hotdogs, corned beef, luncheon meat	Aerobic Plate Count	Pour Plate Method US FDA BAM
	<i>E. coli</i> Count	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
10.4 Packaged cooked cured/salted meat (ham, bacon)	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
10.5 Fermented, comminuted meat, not cooked (dry and semi-dry fermented sausages)	<i>E. coli</i> Count	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
10.6 Cooked poultry meat, frozen to be re-heated before eating (e.g., prepared frozen meals)	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
10.7 Cured/smoked poultry meat	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM

10.8 Dehydrated poultry products	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
11.0 Fish and fish products		
11.1 Fresh frozen fish and cold-smoked	Aerobic Plate Count	Pour Plate Method US FDA BAM
	<i>E. coli</i> Count	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
11.2 Pre-cooked breaded and fish	Aerobic Plate Count	Pour Plate Method US FDA BAM
	<i>E. coli</i> Count	MPN Method US FDA BAM
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
11.3 Frozen raw crustaceans	Aerobic Plate Count	Pour Plate Method US FDA BAM
	<i>E. coli</i> Count	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
11.4 Frozen cooked crustaceans	Aerobic Plate Count	Pour Plate Method US FDA BAM
	<i>E. coli</i> Count	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology

		Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
11.5 Cooked, chilled and frozen crabmeat	Aerobic Plate Count	Pour Plate Method US FDA BAM
	<i>E. coli</i> Count	MPN Method US FDA BAM
	<i>Staphylococcus aureus</i>	US FDA BAM Spread Plate Method
11.6 Fresh and frozen bivalve molluscs	Aerobic Plate Count	Pour Plate Method US FDA BAM
	<i>E. coli</i> Count	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
12.0 Spices, soups, sauces, salads and protein products		
12.0 Dry mixes for soup and sauces	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	Yeast and Mold Counts	Spread Plate MethodUS FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
12.2 Yeast	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
12.3 Spices	Aerobic Plate Count	Pour Plate Method US FDA BAM

	Mold Count	Spread Plate Method US FDA BAM
12.4 Spices (ready to eat)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	Mold Count	Spread Plate Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
	<i>Staphylococcus aureus</i>	Spread Plate Method US FDA BAM
12.5 Salad dressing (Mayonnaise, Thousand Island, Ranch, French etc.)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Yeast and Mold Counts	Spread Plate Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
13.0 Beverages		
13.1 Non-alcoholic beverages (e.g., Ready to drink softdrinks, iced tea, energy drinks)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	Yeast and Mold Counts	Spread Plate Method US FDA BAM
13.2 Frozen juice concentrate	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Yeast and Mold Counts	Spread Plate Method US FDA BAM

13.3 Powdered beverages (e.g., iced tea, powdered juices/mixes)	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
14.0 Food for infants and young children		
14.1 Powdered infant formula with or without added lactic acid producing cultures (intended for 0 to 6 months old)	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
14.2 Follow up formula /milk supplement (intended for infants 6 months on and for young children 12- 36 months of age)	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
14.5 Dried and instant products requiring reconstitution	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	MPN Method US FDA BAM
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
14.6 Dried products requiring reconstitution and boiling before consumption	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	Petrifilm AOAC 991.14
	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
14.7 Cereal based foods for infants	Aerobic Plate Count	Pour Plate Method US FDA BAM
	Coliform Count	MPN Method US FDA BAM

	<i>Salmonella</i> Detection	Rambach Agar Method Merck Microbiology Manual 12th edition
IV. Water		
1.0 Bottled water		
1.0 Bottled Water	Heterotrophic Plate Count	Pour Plate Method SMEWW Methods 9050C, 9215A and B
	Total Coliform Count	Multiple Tube Fermentation Technique / SMEWW Methods 9221A, B, E, G
	Fecal Coliform Count	
	<i>E. coli</i> Count	Multiple Tube Fermentation Technique (using Indole Production Methods)/SMEWW Methods 9221B, 9223A and B

Legend to Reference Methods

AOAC – Association of Official Analytical Chemists

BAM - Bacteriological Analytical Manual

SMEWW - Standard Methods for Examination of Water and Wastewater

***** Nothing Follows *****