

10. Optimal Laboratories, Inc.

Address : Purok I, Balintawak, Lipa 4217 Batangas
 Telephone No. : (043)756-1292, (043)702-4513,
 (02)806-2863
 Fax No. : (043)981-3992
 E-mail : optimal_lab@hotmail.com
 Contact Person : Ms. Jennifer R. Maralit
 General Manager
 Field of Testing : Chemical Testing
 Microbiological Testing

Chemical Testing

Products	Specific Tests	Method/ Reference
I. Foods		
1.0 Milk and Dairy Products		
01.1 Milk powder and cream powder	Protein	Dumas' Combustion Method AOAC Method 968.06 and 990.03
01.2 Whey and whey products		
01.3 Condensed Milk	Moisture	Air-Oven Method AOAC Method 925.09
01.4 Liquid Milk (Evaporated and cream(UHT/sterilized)		
01.8 Milk and buttermilk		
01.9 Cheese and cheese products (cottage cheese, soft and semi-soft cheese)	Fat	Acid Hydrolysis Method AOAC Method 922.06
01.10 Processed cheese spread	Ash	Gravimetric Method AOAC Method 942.05
	Sodium (Na)	Atomic Absorption Spectrophotometry (AAS) AOAC Method 985.35
07.0 Cereals and cereal products		
07.1 Breakfast cereal	Protein	Dumas' Combustion Method AOAC Method 968.06 and 990.03
07.2 Cereal/cereal grains		

<p>07.4 Soya flours concentrate and isolates</p> <p>07.5 Flour, corn meal, corn grits, semolina</p> <p>07.7 Soy protein</p> <p>07.9 Pasta products and noodles (e.g. rice paper, rice vermicelli, soybean pastas and noodles)</p> <p>07.10 Starch</p> <p>07.11 Cereal and starch based desserts (e.g. rice pudding, tapioca pudding)</p> <p>07.12 Batters (e.g. for breading or batters for fish or poultry)</p>	Moisture	Air-Oven Method AOAC Method 925.09
	Fat	Acid Hydrolysis Method AOAC Method 922.06
	Ash	Gravimetric Method AOAC Method 942.05
08.0 Bakery Products		
<p>08.1 Frozen bakery products (ready to eat and to be cooked)</p> <p>08.3 Breads and rolls</p> <p>08.4 Crackers, excluding sweet crackers</p> <p>08.5 Cakes, cookies and pies, doughnuts</p>	Protein	Dumas' Combustion Method AOAC Method 968.06 and 990.03
	Moisture	Air-Oven Method AOAC Method 925.09
	Fat	Acid Hydrolysis Method AOAC Method 922.06
	Ash	Gravimetric Method AOAC Method 942.05
12.0 Salts, spices, soups, sauces, salads and protein products		
<p>12.1 Salt and salt substitutes</p> <p>12.2 Spices</p> <p>12.6 Sauces and like products</p> <p> 12.6.3 Dry mixes for soup and gravies</p> <p> 12.6.2 Non-emulsified sauces (Ketchup, cheese sauce, cream sauce)</p> <p> 12.6.4 Clear sauces (e.g. Fish sauce)</p> <p>12.8 Yeast and like products brown gravy</p>	Moisture	Air-Oven Method AOAC Method 925.09

Microbiological Testing

Products	Specific Tests	Method/ Reference
Foods		
01.0 Milk and Dairy products		
1.0 Milk powder and cream powder	Aerobic Plate Count	Pour Plate Method BAM. Online
01.2 Sweetened Condensed Milk	Aerobic Plate Count	Pour Plate Method BAM. Online
01.4 Pasteurized milk	Aerobic Plate Count	Pour Plate method BAM Online
01.5 Pasteurized cream	Aerobic Plate count	Pour Plate Method BAM Online
01.6 Yogurt and other fermented milk	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM. Online
01.7 Cheese and Cheese Products; eg. Cottage Cheese; soft and semi-soft cheese (moisture ≥39%, pH >5)	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM. Online
	Coliform Count	MPN Technique, CMMEF, 4 th edition
01.8 Processed Cheese Spread	Aerobic Plate Count	Pour Plate Method BAM Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM Online
01.9 All raw Milk Cheese; Raw Milk Un-ripened cheese with moisture >50%, pH 5.0	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM. Online
02.0 Fats, Oils and Fat Emulsions		

02.1 Butter (whipped, pasteurized)	Aerobic Plate Count	Pour Plate Method BAM. Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM. Online
02.2 Butter made from unpasteurized milk or milk products	Aerobic Plate Count	Pour Plate Method BAM. Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM Online
02.3 Margarine	Aerobic Plate Count	Pour Plate Method BAM Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM Online
03.0 Edible Ices, Including Sherbet and Sorbet		
03.1 Ice Cream & Sherbet (plain and flavored)	Aerobic Plate Count	Pour Plate Method BAM Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM Online
03.2 Ice Cream with added ingredients (nuts, fruits, cocoa)	Aerobic Plate Count	Pour Plate Method BAM Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM Online
03.3 Flavored Ice	Aerobic Plate Count	Pour Plate Method BAM Online
	Coliform Count	MPN Method CMMEF, 4 th edition
04.0 Confectioneries		
04.1 Cocoa Powder	Aerobic Plate Count	Pour Plate Method BAM Online
	Coliform Count	MPN Method CMMEF, 4 th edition

04.2 Chocolate Products	Aerobic Plate Count	Pour Plate Method CMMEF, 4 th Edition
	Coliform Count	MPN Method CMMEF, 4 th edition
04.3 Chocolate Confectionaries (chocolate bars, blocks, bonbons)	Aerobic Plate Count	Pour Plate Method BAM Online
	Coliform Count	MPN Method CMMEF, 4 th edition, 2001
04.4 Sugar Confectionaries (Hard and soft candies, toffees, caramel, fondants, creams, nougats and pastes)	Aerobic Plate Count	Pour Plate Method BAM Online
	Coliform Count	MPN Method, CMMEF, 4 th edition
05.0 Fruits and Vegetables, Nuts and Seeds		
05.2 Fermented Vegetables, Ready to Eat (e.g. Kimchi)	Coliform Count	MPN Method CMMEF, 4 th edition
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM Online
06.0 Egg and Egg Products		
06.1 Pasteurized Egg Products	Aerobic Plate Count	Pour Plate Method BAM Online
07.0 Cereals and Cereal Products		
07.1 Breakfast cereals	Aerobic Plate Count	Pour Plate Method BAM Online
07.2 Cereals/Cereal Grains	Aerobic Plate Count	Pour Plate Method BAM Online
07.7 Soy Protein	Aerobic Plate Count	Pour Plate Method BAM. Online

07.8 Tofu	<i>S. aureus</i> (coagulase +)	Spread Plate Method BA M. Online
07.9 Pasta Products and Noodles Uncooked (wet and dry)	Aerobic Plate Count	Pour Plate Method BAM. Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM. Online
07.10 Starch	Aerobic Plate Count	Pour Plate Method BAM. Online
08.0 Bakery Products		
08.1 Frozen Bakery products (ready to eat) with low-acid or high a_w fillings or toppings	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM. Online
08.2 Frozen Bakery products (to be cooked) with low-acid or high a_w fillings or toppings (e.g. meat pies, pizzas)	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM. Online
08.3 Frozen and Refrigerated Doughs (Chemically leavened)	Aerobic Plate Count	Pour Plate Method BAM. Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM. Online
08.4 Frozen and Refrigerated Doughs	Aerobic Plate Count	Pour Plate Method BAM. Online
08.5 Baked Goods	Aerobic Plate Count	Pour Plate Method US FDA BAM. Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM. Online
09.0 Ready to Eat Savouries		
09.1 Snack Foods	Aerobic Plate Count	Pour Plate Method BAM. Online
11.0 Fish and Fish Products		

11.1 Fresh and Frozen Fish and Cold-Smoked	Aerobic Plate Count	Pour Plate Method BAM. Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BA M. Online
11.2 Pre-Cooked Breaded Fish	Aerobic Plate Count	Pour Plate Method BAM. Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM. Online
11.3 Frozen Raw Crustaceans	Aerobic Plate Count	Pour Plate Method BAM Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM Online
11.4 Frozen Cooked Crustaceans	Aerobic Plate Count	Pour Plate Method BAM Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM Online
11.5 Cooked, Chilled and Frozen Crabmeat	Aerobic Plate Count	Pour Plate Method BAM Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM Online
11.6 Fresh and Frozen Bivalve Molluscs	Aerobic Plate Count	Pour Plate Method BAM Online
12.0 Spices, Soups, Sauces, Salads and Protein Products		
12.1 Dry Mixes for Soup and Sauces	Aerobic Plate Count	Pour Plate Method BAM Online
12.2 Spices	Aerobic Plate Count	Pour Plate Method BAM Online
12.3 Spices (ready to eat)	Aerobic Plate Count	Pour Plate Method BAM Online
	<i>S. aureus</i> (coagulase +)	Spread Plate Method BAM Online
12.4 Salad Dressing (e.g. Mayonnaise, Thousand Island, Ranch, French)	Aerobic Plate Count	Pour Plate Method BAM Online
13.0 Beverages		

13.1 Non-alcoholic beverages (e.g. Ready to drink softdrinks, iced tea, energy drinks)	Aerobic Plate Count	Pour Plate Method BAM Online
13.2 Frozen Juice Concentrate	Aerobic Plate Count	Pour Plate Method BAM Online
13.3 Powdered Beverages (e.g. Iced tea, powdered juice/mixes)	Aerobic Plate Count	Pour Plate Method BAM Online
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)	Aerobic Plate Count	Pour Plate Method BAM Online
	Coliform Count	MPN Method CMMEF, 4 th edition, 2001
14.2 Follow-up Formula/ Milk Supplement (Intended for infants 6 months on and for young children 12-36 months of age)	Aerobic Plate Count	Pour Plate Method BAM Online
	Coliform Count	MPN Method CMMEF, 4 th edition, 2001
14.5 Dried and Instant products requiring reconstitution	Aerobic Plate Count	Pour Plate Method BAM Online
	Aerobic Plate Count	Pour Plate Method BAM Online
	Coliform Count	MPN Technique, CMMEF, 4 th edition, 2001
14.6 Dried products requiring reconstitution and boiling before consumption	Aerobic Plate Count	Pour Plate Method BAM Online
14.7 Cereal based foods for infants	Aerobic Plate Count	Pour Plate Method BAM Online
	Coliform Count	MPN Method CMMEF, 4 th edition, 2001