

LAWS AND REGULATION TO FOODS AND
FOOD ADDITIVES

Country Report

BANGLADESH

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Bangladesh Country Report

1. Introduction to Regulatory Framework for Foods

Bangladesh is yet to develop a unified Food Safety Administration System and to formulate a Food Safety Policy. But it has a National Food and Nutrition Policy where attention has been given on food safety. There are significant activities in food safety and quality control are going on in the country. A number of Ministries, Departments and Agencies are involved in these activities with a major responsibility of the Ministry of Health and Family Welfare (MOHFW) which has a unique infrastructure to deliver its services throughout the country. Under this Ministry, Management Information System on food safety and food borne illnesses is some extent integrated with the Primary Health Care Programme. It may be mentioned here that Bangladesh has signed the WTO Agreement.

i. Administrative Authorities

Food safety has become an important topic as consumers in Bangladesh have become victim of serious adulteration in food. Article 15 of the Bangladesh Constitution states that it shall be a fundamental responsibility of the state to secure provision of the basic necessities of life including food. Article 18 of the Constitution states that the State shall raise the level of nutrition and improve public health as its primary duties. Both the Articles imply food safety requirements for consumers and the State must be ensured through enactment of appropriate laws.

ii. Administration And Inspection

The following Ministries, Departments, Agencies are directly or indirectly responsible for enforcement of food laws, rules and regulations-

- a. **Ministry of Health and Family Welfare (MOHFW):** As per the Bangladesh Pure Food Ordinance, 1959 and the Bangladesh Pure Food Rules, 1967, the MOHFW having the major responsibility for the enforcement of food control legislation to ensure safe food. The MOHFW is responsible for monitoring of food quality and safety situation including collection of food samples. Inspection of food manufacturing/processing and selling premises as well as to collect food samples.
- b. **Ministry of Local Government, Rural Development and Co-operatives (MOLGRD):** MOLGRD is responsible for the food safety and quality of food in City corporations and Municipalities.
- c. **Ministry of Law, Justice and Parliamentary Affairs:** On the basis of the Certificate of Tested Food samples, prosecution is done under "The Pure Food Ordinance, 1959" conducted by this Ministry. Besides, this Ministry having the responsibility for revision of existing rules/ordinance or to formulate, vetting and Parliamentary approval etc. for new ordinance or rules, as per request of or recommendation from the concerned sectors etc.
- d. **Ministry of Food and Disaster Management:** Directorate General of Food having Food Inspectors at the Upazila and District level and usually deal with the Food security aspects. Besides, they are also responsible for quality of imported and locally procured food grains and other food items including sugar, edible oil etc. as well as responsible for the quality of the storage food grains etc.

- e. **Ministry of Industry:** Ministry of Industry is responsible for the Standardisation, Certification Marks and Monitoring quality control of food items through its BSTI. BSTI is responsible for implementing food regulations in Bangladesh.
- f. **Ministry of Agriculture:** Ministry of Agriculture is also involved in maintaining safety and quality of food through good agricultural practices like optimum use of chemical fertilizers, pesticides, preservation and supply of seeds. Approval of pesticides is a responsibility of this Ministry. Directorate General of Extension (DAE) Service of this Ministry is working together with the Bangladesh Atomic Energy Commission to perform a survey to monitor for residues of pesticides in agricultural products all over the country. Furthermore, the Ministry is also implementing Integrated Pest Management in 201 Upazillas. It is revealed that as a result of IPM activities, in Boro paddy production in 2002-03, number of applications of pesticides reduced by 88.2%, average costs of pesticides reduced by 89.0% and 11.0% increased in crop yield; in Vegetable production in 2002-03, number of applications of pesticides reduced by 84.0-89.0%, average costs of pesticides reduced by 88.0% and 12.0% increased in yield.
- g. **Ministry of Environment and Forest:** Ministry of Environment and Forest is also involved in food safety. Presently, the Department of Environment of the ministry along with the Department of Agricultural Extension and Bangladesh Power Development Board is implementing a project on Persistent Organic Pollutants (POPS) under Stockholm Convention aimed to protect human health and environment.
- h. **Ministry of Fisheries and Livestock:** Of this Ministry, the Department of Fisheries is responsible for prevention and control of diseases in fishes & aquatic animals and safety and quality of fish and aquaculture products. The seafood quality and safety programme is based on GMP and sanitation Standard Operating Procedures (SSOP) and HACCP principles. Fish Inspection and Quality Control (FIQC) wing mandatorily introduced and implemented HACCP in Fish processing industries. The FIQC carry out regular inspection of hygiene (raw materials handling, process operations, plant hygiene) and sanitation of plant premises, verify HACCP related documents and records to satisfy the Codex guidelines and directives of EU & USFDA. The Directorate of Livestock is responsible for animal health and quality and safety of product of animal origin.
- i. In addition, the Ministries like Ministry of Home Affairs, Ministry of Science and Technology, Ministry of Energy and Mineral Resources, Ministry of Commerce, Ministry of Education, Ministry of Defence are also responsible for food safety and quality control.

iii. Laws & Regulations

There are several laws in Bangladesh for maintaining health and safety standards.

(a) The Bangladesh Pure Food Ordinance, 1959: This is an ordinance to provide better control of the manufacture and sale of food for human consumption. Now, this Ordinance is under revision as 'The Bangladesh Pure Food (Amendment) Act'. Under this Act, it has been proposed to constitute a National Food Safety Council, headed by the Ministry of Health and Family Welfare as well as to establish Food Courts.

(b) The Bangladesh Pure Food Rules, 1967: In this Rule, there are generic standards for 107 food products. Now, this 'Rules' is under revision.

(c) The Food Grain Supply (Prevention of Prejudicial activity) Ordinance, 1956 (Ord. xxvi of 1979): This ordinance provides special measures for prevention of prejudicial activity relating to the storage, movement, transshipment, supply and distribution of food grains. It provides basis for the protection of false statement or information.

(d) The Radiation Protection Act, 1987: Under this Act, the Institute of Food and Radiation Biology (IFRB) of Bangladesh Atomic Energy Commission is primarily involved in food irradiation research and development in the country.

(e) The Iodine Deficiency Disorders (IDD) Prevention Act, 1989: The Government has enacted "The Iodine Deficiency Disorders Prevention Act, 1989 for universal salt iodisation and banned non-iodised salt from market, aimed at virtual elimination of IDD from the country.

(f) Fish and Fish product (Inspection and Quality Control) Rules, 1997: Under this section of the Fish and Fish products (Inspection and Control) Ordinance 1983 (Ord xx of 1983) and in conjunction with fish and fish products Inspection and Quality Rules 1989, and other related provisions made thereunder, the government has made the Rules: Fish and Fish product (Inspection and Quality Control) Rules, 1997. These Rules are basically meant to develop quality improvement to promote export trade. The quality control of fish and fish products in the country has earned reputation among the importing countries.

(g) Other Laws and Regulations: In addition, a number of other Laws and Regulations exist in the country to ensure the safe and quality food viz. The Animal Slaughter (Restriction) and Meat Control (Amendment) Ordinance, 1983 (it is under revision); The Pesticide Ordinance, 1971 & the Pesticides Rules, 1985; Destructive Insects and Pests Rules (Plant Quarantine), 1966, amended up to 1989; Agricultural Products Market Act, 1950 (revised in 1985); Fish Protection and Conservation Act, 1950 (amended in 1995); Marine Fisheries Ordinance 1983 and Rules, 1983; Procurement Specifications, Ministry of Food, Rice Mill Control Order etc.

(h) The Bangladesh Standards and Testing Institution Ordinance, 1985: This ordinance relates to establishment of an institution for standardisation, testing, metrology, quality control, grading and marking of goods. Within the framework of this ordinance, the government has established the Bangladesh Standards and Testing Institution (BSTI). One important task of this organisation is to certify the quality of commodities, materials, whether for local consumption or for export and import. The Ordinance has been amended as The Bangladesh Standards and Testing Institution (Amendment) Act, 2003.

It is known from the website (<http://www.bsti.gov.bd/about.html>) of The Bangladesh Standards & Testing Institution that it is a body made corporate under the law entitled, "The Bangladesh Standards and Testing Institution Ordinance, No. XXXVII of 1985". Since its establishment, it is the sole body to look after the quality of the products in Bangladesh.

However, there are many functions presented at the website of the institute. Among them the most important one, goes like this: "To certify the quality of commodities, materials, produces, products and other things including food materials, whether for local consumption, or for export or import".

Surprise inspections of the licensee's factory are being carried out periodically by qualified inspecting officers of the institution and random samples are being taken and tested at the BSTI Laboratory

Products bearing the standard mark are collected by the surveillance team of the institution directly from the open market and tested in the BSTI Laboratory. Representatives from the Consumers Association of Bangladesh (CAB) and the respective chamber of commerce and industries help the surveillance team in performing its function.

Bangladesh Government is considering the health and safety of the consumers in the right earnest and has brought so far 145 items of mass consumption under the mandatory certification marks scheme by issuing statutory regulatory orders (SROs) from time to time under the provisions laid down in clause 24 of the BSTI Ordinance 1985.

BSTI is committed to provide legal framework for standards, metrology, testing and quality (SMTQ) in line with the international norms and practices.

The following aspects should be noted:

- All standards issued under Pure Food Rules are mandatory in nature and are enforced by BSTI.
- BSTI is the legal entity for certification of products and services under its Marks certification scheme.
- The legal metrological testing facility is under the BSTI management.
- BSTI has framed more than 3000 standards for various products including food and agriculture. 151 standards are under mandatory requirement and require Marks certification. BSTI has adopted 153 Codex standards for food testing.

Carbonated water standards have been formulated and enforced under BSTI. These standards are based on Indian as well as CODEX guidelines.

- BSTI has already initiated work on adoption of CODEX guidelines in formulating quality as well as safety standards for food products. More than 150 codex standards have been adopted by Y 2010.
- Most of the imports and exports requirements are covered under BSTI mandate. For specific inquiries BSTI need to be consulted. BSTI has provided regional testing facilities in the ports as well main business centers..

iv. Related Laws and Regulations

Bangladesh - New food safety laws 17 Jan 2010

The parliament is expected to frame the Fish and Poultry Feed Act and the Hatchery Act to regulate fish and animal feed production, prevent contamination and deal with other compliance issues.

The Cantonments Pure Food Act - 19/07/1966

The purpose of this Act is to prevent the adulteration of food in all cantonments in Bangladesh and to regulate the sale and manufacture of food.

The Pure Food Ordinance - 14/10/1959

This Ordinance provides norms for processing products to be consumed as food in order to avoid any adulteration that could harm consumers. The Ordinance further provides for: prohibition of manufacture or sale of food which does not meet quality standards; prohibition of sale or use of poisonous or dangerous chemicals and intoxicated food colour; standards of purity of milk, butter, ghee, wheat flour, mustard or any other rape seed oil and of any article of food; prohibition of sale of diseased animals and unwholesome food intended for human consumption; use of false labels; analysis of food and certificates of analysis; inspection and seizure of food; offences and penalties;etc

The Animal Slaughter (Restriction) and Meat Control Act - 23/04/1957

This Act provides for the restrictions applied to the slaughter of animals and the consumption of meat as per Sections 2 to 5.

The Food (Special Courts) Act - 13/11/1956

An Act to provide for setting up of Courts for speedy trial of offences in relation to foodstuffs.

The Seed Rules - 08/03/1998

The Seeds Rules provides for the institution of the National Seeds Board, its function and tasks and all the related procedures dealing with: the registration of seed varieties; the Seeds Dealers.

Protection and Conservation of Fish Rules / Act - 17/10/1985

This document covers two (2) Notifications: (1) The Protection and Conservation of Fish Rules, 1985. (2) Protection and Conservation of Fish Act, 1950.

The Breast-Milk Substitutes (Regulation of Marketing) Ordinance - 24/05/1984

The Ordinance aims at protection and encouragement of breastfeeding, banning advertising, import, distribution and sale of breast-milk substitutes.

The Marine Fisheries Rules - 05/09/1983

Rules pertaining to fishing, licences for domestic and foreign fishing vessels, fishing operations and related activities.

The Marine Fisheries Ordinance - 19/07/1983

(1) Preliminary; (2) Administration; (3) General Provisions Governing Licences; (4) Local Marine Fishing Operations; (5) Foreign Marine Fishing Operations; (6) Appeal; (7) Prohibited Fishing Methods; (8) Marine Reserves; (9) Powers of Authorized Officers; (10) Offences & Legal Procedures; and (11) Rules.

The Fish & Fish Products (Inspection & Quality Control) Ordinance - 17/05/1983

An Ordinance to provide for inspection and quality of fish and fish products.

The Importers, Exporters and Indentors (Registration) Order - 22/10/1981

All company's and / or person who indent, import or export goods are required to be registered in Bangladesh.

The East Pakistan Fisheries (Protection) Ordinance - 24/03/1959

Covers: (1) Short title; (2) Definitions; (3) Declaration of a fishery to be a Khas managed fishery; (4) Bar to unauthorised fishing in Khas managed fisheries; (5) Carrying of valid licence of fishing and production of the same; (6) Bar to unauthorised fishing in other fisheries; (7) Authorisation by Provincial Government to question illegal fishing; (8) Exemption; (9) Penal clauses; (10) Rule making power.

Other Laws and Regulations: In addition, a number of other Laws and Regulations are existed in the country to ensure the safe and quality food viz. The Animal Slaughter (Restriction) and Meat Control (Amendment) Ordinance,1983 (it is under revision);The Pesticide Ordinance,1971 & the Pesticides Rules,1985;Destructive Insects and Pests Rules (Plant Quarantine),1966,amended up to 1989;Agricultural Products Market Act,1950 (revised in 1985);Fish Protection and Conservation Act,1950 (amended in 1995);Marine Fisheries Ordinance 1983 and Rules,1983;Procurement Specifications, Ministry of Food, Rice Mill Control Order etc. To protect the consumers rights and privileges a new Act i.e. Consumers' Protection Act, 2004 is to be passed soon. There are also a number of policies i.e. Bangladesh Food and Nutrition Policy, 1997 and National Plan of Action on Nutrition, National Agricultural Policy, 1999; Integrated Pest Management Policy, 2002 etc are linked with the country's food safety and quality control.

v. Iv. Major Stakeholder Ministries and Departments for Food Control in Bangladesh

Food control in Bangladesh is a multi-sectorial responsibility.

<u>Sl. No</u>	<u>Ministry</u>	<u>Department/Organization</u>	<u>Major activities</u>
1.	Ministry of Agriculture	Plant Protection Wing, DAE	<ul style="list-style-type: none"> Phyto Sanitary certificate for Import/Exported plants/plant products Pesticide Use Control Fertilizer Use Control
2.	Ministry of Food	Directorate General of Food (DGF)	<ul style="list-style-type: none"> Quality Control of PFDS, Stock, Procured Food grains/Food Stuff, Imported food etc. Food Control in the Market (not doing at present)
3.	Ministry of Health & Family Welfare	Directorate General of Health; District & Upazila Health Administration and Institute of Public Health.	<ul style="list-style-type: none"> Food Quality and Sanitation Control in Upazila/District level Testing
4.	Ministry of LGRD	City Corporation & Pourashava Health Units	Have Sanitary Inspector, Labs and Public Analyst for food quality control in their command areas.

5.	Ministry of Fisheries & Livestock	A) Department of Fisheries (FIQC Wing)	<ul style="list-style-type: none"> Fish Quality Control & Certification for export Same for the domestic market
		B) Department of Livestock	<ul style="list-style-type: none"> Animal Health Animal Product Imported Animal
6.	Ministry of Industries	BSTI	<ul style="list-style-type: none"> Frame Standards of Food Products Testing & Certification Marks and Surveillance.
7.	Ministry of Science, Information and Communication Technology	BAEC	Test Radiation level of Imported Food items; Pesticides Residues
		IFST, BCSIR	Testing of Food Items; Research and Development
8.	Ministry of Education	DG, Primary, DG, Secondary, Text Book Board, Universities	Food safety, Nutrition & Environmental issues in the text book of all level of education
9.	Ministry of Information	PIB BTV Radio Bangladesh	Broad cast issues for awareness building
10.	Ministry of Home	Bangladesh Police	Assist the Inspection Agencies
11.	Ministry of Law, Justice & Parliamentary Affairs	-	Formulation, Vetting, Parliamentary Approval etc.

vi. **Coordinating Mechanism**

- **Policy Structure:** Cabinet is the only universal coordinating and controlling infrastructure. No separate coordinating mechanism exists in respect of food safety in the policy structure.
- **Food control (Management and Inspection):** No single organization exists in Bangladesh to oversee/coordinate food control activities.

- **Mandatory Minimum Standard Formulation:** There is no structure of Food Safety Advisory Committee or Minimum Standard Fixing Committee.
- **Auxiliary Standard making:** Standard Wing of BSTI formulated about 365 food & agricultural product standards and services among those only 190 are Food Standards. BSTI has right to adopt International Standards (ISO, IEC, Codex etc) as Bangladesh Standards. Till now 150 International Standards have been adopted as Bangladesh Standards. Standards Wing of BSTI is being assisted by 6(six) Divisional Committee and 70 Sectional/Technical Committees. 17-sectional committees under Agricultural & Food Divisional Committee are working for Food Standards. The members of the committee include representatives from stakeholder Ministries and departments, universities/research organizations, CAB, Business and trade associations/chambers etc.
- **Lab Activities and Research:** Coordinating mechanism among the laboratories should be strengthened in terms of research and routine test methods.
- **Accreditation Body-** A draft act has been prepared and sent to different ministries for comments.

2. Bangladesh Food Standards

- a. Under the Bangladesh Pure Food Ordinance, 1959 and the Bangladesh Pure Food Rules, 1967, there are 107 different generic, mandatory food standards.
- b. BSTI is the Standardization body in the country. There are 50 mandatory generic food standards of BSTI. In addition, there are some 250 optional standards for different foodstuff. BSTI is also adopting Codex standards.

Food Standards

- 107 food items are covered under Pure Food Rules 1967.
- 190 food standards by BSTI of which 52 should have compulsory certification marks.
- 28 Codex standards adopted as Bangladesh standards.

3. Qualitative And Quantitative Assessment Of Food Items

The following Laboratories are responsible for qualitative and quantitative assessment of food items-

1. Public Health Laboratory of the Institute of Public Health, Dhaka under the MOHFW. Some 5000 food samples are tested here annually, sent by the Sanitary Inspectors from different Upazilas and Municipalities. Results are indicated that there are as many as 50% of the samples are found unsatisfactory. But this does not reflect the real picture of the food quality of the country. Because, most of these samples are biased i.e. suspected as unsatisfactory food items by the Sanitary Inspectors, not collected randomly.
2. Laboratory of the Institute of Public Health Nutrition under the MOHFW-dealing with the monitoring of the quality of Iodized salt and others.
3. Bangladesh Standard Testing Institution (BSTI) under the Ministry of Industries. In 2008-10, BSTI performed more than 500 mobile courts, samples collected from open market, issued show cause notice issued to manufacturers, some licenses were cancelled and legal actions were taken.
4. Food Testing Laboratory, Directorate of Food under the Ministry of Food and Disaster Management. In 2002-03, this laboratory tested 242 rice samples, 291 wheat and 6 oil which were respectively 3, 20 and 49 in 2000-01.
5. Institute of Food Science Technology, Dhaka; Bangladesh Council of Scientific and Industrial Research (BCSIR) as well as its Branches at Chittagong and Dhaka under Ministry of Science and Information & Communication Technology.
6. Food Testing Laboratory of Dhaka City Corporation under the MOLGRD. In 2003, a total 960 samples were tested in the Public Health Laboratory of the Dhaka City Corporation which was 430 in the year 2000.
7. Laboratory of Plant Protection Wing of DAE of Ministry of Agriculture: This lab also tests both imported and exported vegetables and fruits. During the year 2002-03, 7007.6 metric tons vegetables and 2262.6 metric tons fruits were exported and of them 1500 samples were collected and tested. It was 5554 metric tons, 1885 metric tons and 1000

samples respectively in 2000-01. It was found that 100% samples were satisfactory in both years.

8. Quality Control Laboratories for frozen fish at Khulna and Chittagong under the Ministry of Fisheries and Livestock. In 2002-03, a total 3940 lots were exported. 49 and 8 lots were rejected in the country and out side of the country respectively. Under this Ministry, there is also Lab at Fisheries Research Institute, Mymensingh.
9. Laboratory of Department of Livestock under the Ministry of Fisheries and Livestock.
10. Institute of Food Radiation Biology, Atomic Energy Commission under the Ministry of Energy and Mineral Resources.
11. Institute of Nutrition and Food Science, University of Dhaka under the Ministry of Education.
12. Central laboratory and Lab of Post Harvest Technology of Bangladesh Agricultural Research Institute and Lab. of Bangladesh Rice Research Institute under the Ministry of Agriculture.
13. Armed Forces Food and Drug Testing Laboratory, Dhaka Cantonment, Dhaka under the Ministry of Defence.
14. Laboratories of Department of Food Technology & Rural Industry, Department of Dairy Science and Department of Biochemistry of Bangladesh Agricultural University.
15. Chemical Examination Laboratory of CID under the Ministry of Home Affairs.
16. Environment Laboratory, Directorate of Environment under the Ministry Environment and Forests.

Food safety Programme – a collaborative programme of Govt. of Bangladesh and WHO is being implemented in Bangladesh since 1994. Under the Food Safety Programme. The major activities are-

1. Strengthening of Public Health Laboratory of the Institute of Public Health, Dhaka
 - a. Procurement of instruments, equipment and chemicals
 - b. Training of the laboratory personnel (in home and abroad)
1. Training on Food safety for - Health Managers and Sanitary Inspectors of MOHFW and MOLGRD.
2. Training on HACCP for Quality Control personnel of Food industries
3. Orientation on food safety for- School teachers, Community leaders, Religious leaders and Hotel Restaurant Managers/Owners , Street food vendors and other
4. National and Regional seminars on food safety.
5. Information, Education and Communication activities on food safety for School children, Managers/owners of Hotel restaurants, Food vendors, Mass people and others.
6. Research works : On quality of different food items, epidemiology of food borne diseases etc

4. Laws And Regulations Related To Food Additives

1. Overview

- **Food Additives : Definition and Functional Classes**

- **Flavors Under Bangladesh Pure Food Rules** : Clause 21

21. Flavouring compounds in food- An article of food to which has been added a flavouring compound in contravention of this rule shall be deemed to be adulterated-

1. No food shall contain any flavouring compounds which are by themselves toxic or which contain contaminants which are toxic.
2. Any food which contains any added natural flavouring compounds shall be labelled in the legend with 'NATURAL FLAVOUR' or 'CONTAIN NATURAL FLAVOURING' provided that only those flavouring compounds which have been obtained from fruits or plants by extraction with suitable harmless solvents or by distillation or by expression, or by any other suitable process are used.
3. Any food which contain any artificial flavouring compound shall be labelled with the legend 'ARTIFICIAL FLAVOUR' or 'IMITATION FLAVOUR' provided that where a food contains a mixture of both natural and artificial flavouring compounds it shall be labelled as 'ARTIFICIAL FLAVOUR' provided further that those flavoring compounds which have been obtained by Chemical synthesis shall be considered as artificial.

- **Processing Aids** : No description available under the Bangladesh Pure Food Laws 1967.

- **Carry Over**: No description available under the Bangladesh Pure Food Laws 1967.

- **Functional Classes**: Under Bangladesh Pure Food Laws, 1967, following functional classes of foods additives have been listed:

List of Food categories:

- Milk and Milk Products.
- Edible Oils and Oil Products.
- Tea, Coffee, Roasted Coffee and Grounded Coffee.
- Sugars and Sugary Products Honey.
- Food Grains, Cereals and Their Products.
- Starchy Products.
- Non Alcoholic Beverages.
- Spices.

- Fruits, Vegetables and Miscellaneous Products.
- Edible Fats.
- Biscuits, Bread and Confectionery Product.
- Dried Fish.
- Ice.

Additives:

- Flavouring Agents.
- Colouring Matters.
- Class I And Class II Preservatives.
- Antioxidants.
- Stabilizers.
- Non Nutritive Constituents.
- Common Salt.
- Baking Powder.
- Edible Gelatin

➤ **Permitted Food Additives and Maximum limits**

17. Colouring matter in food- any article of food to which has been added any colouring matter in contravention of this rule shall be deemed to be adulterated.

(1) Coal-tar dyes- No Coal-tar dyes or mixtures thereof except the following shall be used in the preparation of any food namely:-

<u>Colour Index No.</u>	<u>Colour Index Name</u>	<u>Common Name</u>	<u>Chemical Class</u>
(a) 73015	Food Blue 1	Indigo Carmine	Indigoid
(b) 42090	Food Blue 2	Brilliant Blue F.C.F	Triarylmethane
(c) 69800	Food Blue 4	Indanthrone	Anthraquinone
(d) 42051	Food Blue 5	Patent Blue V	Triarylmethane
(e) 42640	Food Violent 2	Violet 6b	Triarylmethane
(f) 42580	Food Violent 3	Violets B.N.P.	Do.
(g) 42085	Food Green 1	Sulpho Green 2 B.A.	Do.
(h) 42095	Food Green 2	Acid Brilliant Green	Do.
(i) 42053	Food Green 3	A.F. Green No. 3	Do.
(j) 15985	Food Yellow 3	Sunset Yellow F.C.F	Monoazo
(k) 19140	Food Yellow 4	Tartrazine	Do.
(l)	Food Brown 1	Brown F.K.	Disazo
(m)	Food Brown 2	Chocolate Brown F.B.	Monoazo
(n) 20285	Food Brown 3	Chocolate Brown H.T.	Disazo
(o) 14700	Food Red 1	Ponceau S.X.	Monoazo
(p) 16185	Food Red 9	Amaranth	Do.
(q) 45430	Food Red 14	Brythrosine B.S.	Xanthene
(r) 28440	Food Black 1	Black P.N.	Disazo

*The colour index, second edition, 1956, Society of Dyers and Colourists, England.

(2) The maximum limit of permissible colour which may be added to any food shall be one grain per pound of food.

(3) The following natural colouring matters may be used in or, upon any article of food- cochineal, carmine, caramel, Carotenes, chlorophyll, curcumin, lactoflavin, annatto, ratanjot, saffron.

(4) Inorganic colouring matters or pigments shall not be added to any article of food.

(5) The use of artificial or synthetic colouring matters in raw foodstuffs which are consumed after cooking in the usual way is prohibited.

(6) No person shall sell a coal-tar colour or a mixture of coal-tar colours unless the label on the package carries-

(a) The common name (s) of the coal-tar colour (s);

(b) The lot number of coal-tar colour; and

(c) The words "Food Colour".

(7) Use of permitted coal-tar dyes in or upon any food other than those shown below is prohibited-

(a) Ice-cream

(b) Dairy products except milk, dahi, butter, ghee, chhana, condensed milk, cream, and baby food

(c) Smoked fish

(d) Egg preparation

(e) Sweets including pastry and Other confectionaries

(f) Fruit Products

(g) Non-alcoholic beverages except tea, cocoa and coffee

(h) Custard powder

(i) Jelley crystals

(j) Soup powder and

(k) Luncheon meat

(l) Processed or preserved vegetables

(m) Flavoring agents

➤ **Details of Preservatives under Bangladesh Food Laws, 1967**

Categories of Foods and limits of Usage

19. Preservative in food- An article of food to which has been added any preservative in contravention of this rule shall be deemed to be adulterated-

1. **Classification of preservative** – Preservative shall be divided into following classes, namely :-

i. Class I Preservative shall be-

(a) Common salt

(b) Sugar

(c) Dextrose

(d) Glucose

(e) Wood smoke

(f) Spices

(g) Vinegar or acetic acid

(h) Honey

- (i) Hops
- (j) Commercial salt petre; and
- (k) Alcohol or potable spirit, and

ii. **Class II preservative shall be –**

- (a) Benzoic acid including salts thereof,
- (b) Sulphurous acid including salts thereof,
- (c) Nitrites of sodium or potassium in respect of food like ham, pickle, meat, and
- (d) Sorbic acid including salts thereof.

2. **Use of more than one class II preservative-** No person shall use in or upon a food more than one class II preservatives.

Class Ii Preservatives

3. Use of class II preservatives-The use of Class II preservatives shall be restricted to the following group of foods in concentration not exceeding the proportions given against each, namely:-

Article of Food 1	Preservative 2	Parts Per Million 3
i) Sausages and sausages meat containing raw meat, cereals and condiments	Sulphur Dioxide	450
ii) Fruit, fruit pulp or juice (not dried) for conversion into jam or crystallized, glace or cured fruit or other products-		
(a) Cherries	Do.	3,000
(b) Strawberries and raspberries	Do.	2,000
(c) Other fruits	Do.	1,000
iii) Fruit juice concentrate	Do.	1,500
iv) Dried Fruits		
(a) Apricots, peaches, apples, pears and Other fruits	Do.	2,000
(b) Raisins and sultanas	Do.	750
v) Other non-alcoholic wines, cordials, fruits, juices, and beverages sweetened and unsweetened	Do. Benzoic acid	350 600
vi) Jam, Marmalade preserve, canned cherry and fruit jelly	Sulphur Dioxide or Benzoic acid	40 200
vii) Crystallized glace or cured fruit (including candied peel)	Sulphur Dioxide	150
viii) Fruit and fruit pulp not otherwise specified in this schedule	Do.	350
ix) Sugar, Glucose, Gur and Khandsari	Do.	70
x) Corn flour or similar starch	Do.	100
xi) Gelatine	Do.	350
xii) Corn Syrup	Do.	450
xiii) Beer	Do.	70
xiv) Cider	Do.	200

xv) Alcoholic Wines	Do.	450
xvi) Sweetened Mineral Water	Sulphuric dioxide or Benzoic acid	70 120
xvii) Brewed Ginger Beer	Benzoic acid	120
xviii) Coffee extract	Do.	450
xix) Pickles and chutney made from fruit or vegetables	Do.	250
xx) Tomato and other sauces	Do.	750
xxi) Cooked pickle meat including ham and bacon	Sodium or Potassium Nitrite	Not more than 200 p.p.m. (calculated as Sodium nitrite)
xxii) Danish tinned Caviar	Benzoic acid	50
xxiii) Dehydrated Vegetables	Sulphuric dioxide	2,000
xxiv) Tomato purees and paste	Benzoic acid	250
xxv) Syrups and sherbats	Sulphur Dioxide or Benzoic acid	600
xxvi) Dried ginger	Sulphur Dioxide	2,000

Note: Sulphur dioxide shall not be added to meat or to any food recognizable as a source of Vitamin B, except as provided in sub-rules under this rule.

No food shall contain compounds of boron, salicylic acid or formaldehyde

No food shall contain sorbic acid or its compounds in excess of 0.1 percent by weight.

No food shall contain any preservative other than those specified in this rule unless it is approved by notification by the provincial Government.

20. Container of food which contains preservative shall not be marked "pure"-

The word "Pure" shall not be used on the label of the container of any food which contains preservative.

No preservative shall be sold for use in food unless the label carries-

- a) The common name;
- b) The chemical name;
- c) The net weight;
- d) Adequate direction for use in accordance with the limits prescribed for such preservatives;
and
- e) The name and address of the manufacturer.

24. Antioxidants in food-

- 1) Any article of food to which has been added any antioxidant in contravention of this rule shall be deemed, unless the contrary is proved, to be adulterated.
- 2) Antioxidants shall not be added to any food other than edible oils and fats from animal, vegetable and fish, vitamin oils or concentrates and products consisting essentially of fat such as margarine or the like.
- 3) The addition of the following antioxidants to edible oils, fats and essential oils in quantities not exceeding those stated below is permitted, namely:-

Antioxidant	Edible Oil and Fats <i>Per cent</i>	Essential Oils <i>Per cent</i>
i) Propyl, octyl or dodecyl galiate or a mixture thereof	0.01	0.1
ii) Gum Guaiace	0.01
iii) Nor- dihydroguaiaretic acid (NDGA)	0.01
iv) Thiopropionic acid	0.01
v) Butylated hydroxyanisols (BHA)	0.02	0.01
vi) Dilaury thiodipropionate	0.02
vii) Tocopherol	0.03
viii) Ascorbic acid and its harmless derivatives	any quantity

4) Compound foods shall be permitted to contain-such amount of antioxidant as is necessarily introduced by the use of ingredients specified in sub-rule (3).

25. **Stabilisers in food-** The use of the following substances as stabilisers or emulsifying agents, singly or in combination is permitted-

- i. Agar Agar;
- ii. Carob bean;
- iii. Irish moss or carrageen or chondrus;
- iv. Guar gum;
- v. Sodium alginate;
- vi. Monoglycerides or diglycerides of fatty acids;
- vii. Brominated vegetable oils;
- viii. Gum Acacia:

Provided that where a standard for the nature, substance and quality of a----- prescribes a limit, that shall not be exceeded by the stabilizer.

Note-Ice-cream shall not contain more than 0.5 per cent of a stabiliser.

26. **Non-nutritive constituents in food-**

1. Any article of food to which has been added a non-nutritive constituent, that is to say, a constituent which is not utilized in normal metabolism, in contravention of this rule, shall be deemed to be adulterated.
- j. Any food which purports to be or provides for any special dietary use by man for reason of the presence of any constituent which is not utilized in normal metabolism shall bear on its label a statement of the percentage of such constituent along with the name of such constituent and the word, 'Non-nutritive'.
- k. If the non-nutritive constituent is saccharin or a saccharin salt, the label shall bear, in lieu of the statement prescribed in sub-rule (i) the statement contains saccharin------(or saccharin salt, as the case may be), non-nutritive artificial sweetener which should be, used only by persons who must restrict their intake of ordinary sweets.

The blank to be filled in with the percentage of saccharin or sachharin salt in such food.

- l. **The following non-nutritive sweeteners** may be used in place of saccharin or its salts subjects to the same conditions regarding the statements on the label-

- a) Calcium cyclobexyl-sulphate; and
 - b) Sodium cyclohexyl-sulphate.
- m. The label statement of foods containing non-nutritive sweeteners shall also conform to the requirement of other rules.
- n. Non-nutritive sweeteners and sugar shall not be used in combination in any food.
- o. Saccharin, sucaryl or any other non-nutritive sweeteners shall not be sold, unless the package carries a label showing-
- a) The common name;
 - b) The chemical name;
 - c) The net weight;
 - d) Adequate directions for use in foods; and
 - e) The address of manufacturer.

➤ **Negative List for Food Additives**

Not clearly specified Under Bangladesh Food Laws, 1967.

Following description exists.

22. Unsound or unwholesome food and food unfit for human consumption-Subject to the limitations prescribed under Sl. No. 47 of the schedule, any article of food shall be considered injurious to health and unfit for human consumption within the meaning of section 17 of the Ordinance, if it is putrefied or decayed or it emits a bad smell;

Or

It is infested with insects

Or

It has evidence of fifth or of infestation with parasites such as rodent excretion or hair;

Or

It contains chemicals known to be toxic or it contains bacteria which are likely to cause food poisoning;

Or

It contains the following metal or metalloids in excess of the tolerance limit showing against each-

Aluminum	Maximum	250	parts	per	million
Antimony	"	2.0	"	"	"
Arsenic Liquid	"	0.1	"	"	"
Arsenic Solid	"	2	"	"	"
Boron	"	80	"	"	"
Cadmium	"	6	"	"	"
Zinc	"	100	"	"	"
Copper	"	10	"	"	"
Tin	"	100	"	"	"
Fluorine	"	1.5	"	"	"
Silver	"	1	"	"	"
Lead Liquid	"	2	"	"	"
Lead Solid	"	20	"	"	"

Or

It contains acidity in excess of the limit.

- **Specification for Food Additives** These are prescribed in the list mentioned in Overview, under Permitted Food Additives and Maximum limits.
- **Assessment of Food Additives:** There are no specific directions the existing Bangladesh Pure Food Regulations 1967.
- **Labeling of Food Additives**

The Govt. of Bangladesh is well committed to ensure safe and quality food to its people. In Bangladesh, the food safety and quality control framework consists of Laws, Regulations & Standards; Administration & Inspection and Laboratory analytical services. Considering the alarming Food safety and quality situation, the Govt. has enacted the Bangladesh Pure Food (Amendment) Act, 2005. The Govt. through MOFDM has just completed a programme of “Strengthening National Food Safety and Quality System” under FAO TA. The Govt. is also strengthening the Bangladesh Standard Testing Institution (BSTI)-an Institute, which is responsible for the standardization, testing, metrology, quality control, grading and marking of goods.

The BSTI Ordinance, 1985 has been amended as The Bangladesh Standards and Testing Institution (Amendment) Act, 2003. Currently, BSTI is developing a ‘Policy on Labeling’. BSTI is the Codex Focal Point for Bangladesh.

The Government has also enacted “The Iodine Deficiency Disorders Prevention Act, 1989 for universal salt iodization & banned non-iodized salt from market, aimed at virtual elimination of IDD from the country. Other Acts like the Radiation Protection Act, 1987, the Essential Commodity Act, 1990, Fish and Fish product (Inspection and Quality Control) Rules, 1997 etc. There are also a number of policies National Agricultural Policy, 1999, Integrated Pest Management Policy, 2002 etc are linked with the country’s food safety and quality control initiatives. The present anti-adulteration drive is highly appreciated by all corners of the society.

Most of the labelling requirements are in conformity to regional requirements and are guided by general principles of Codex Labeling norms. The labels are in Bangla and English dialects with general information on Brand Name, Manufacture details, weight/ volume, price and date of manufacture. Labeling of additives is as per generic guidelines.

Description Under Bangladesh Pure Food Laws, 1967.

Container of food which contains preservative shall not be marked “pure”- the word “Pure” shall not be used on the label of the container of any food which contains preservative.

No preservative shall be sold for use in food unless the label carries-

- a) The common name;
- b) The chemical name;
- c) The net weight;
- d) Adequate directions for use in accordance with the limits prescribed for such preservatives; and
- e) The name and address of the manufacturer.

5. Commodity Standards: Case Studies

1. Instant Noodles: Under Bangladesh Pure Food Laws, 1967, no specific standard for Instant noodles are prescribed. However, standards for cereal powder, local products and vermicelli are provided as given below:

Food Grains, Cereals And Their Products.

S.No.	Articles of Food	Description of the standards
47.	Food grains:	<p>Shall include rice, wheat, gram (chick peas), barley, oats, maize, jawar, bajra, food grains for human consumption shall be clean, dry and free from molds. It shall be free from damage (by insect or otherwise) bad smell, discolouration and admixture with deleterious and toxic materials. Food grains shall conform to the following standards-</p> <ul style="list-style-type: none">a) Colour- The grains shall have its normal colour as far as possible but slight discolouration shall not make it unfit for use if it has not developed any unpleasant smell or taste.b) Smell- It shall be free from persistent bad smell.c) Taste- It shall not possess any taste uncharacteristic of the grain.d) Foreign matter- it includes sand, gravel, dirt, stones, pebbles, straw, stems, chaff, cockles, oilseeds and other non-poisonous seeds. It shall not exceed 3 per cent by weight.e) Damaged Grain- Grains which are damage, touched or moldy or shriveled shall not exceed a total of 10 percent and the moldy grain, after superficial cleaning, shall not be more than 1.5 per cent.f) Insect- Damaged grain shall not exceed the limit of 5 per cent.g) Sound grain- Notwithstanding the permissible limits stated in "Foreign matter" and "Moisture Content", the percentage of normal and sound grains shall in no case be less than 85 per cent. Of the total including the small percentage of "foreign food grains".h) Moisture Content- the moisture content at any time of the year irrespective of climate shall not exceed 13 per cent.
48.	Atta:	<p>Means the product obtained by milling or grinding wheat which shall be effectively cleaned preferably by through washing. It shall be free from lumps, rancidity, insect and fungus, infestation, rodent cont, amination and fermented, musty or other objectionable odour. It shall not have grit, adulterant and other extraneous material. The material shall be prepared in premises maintained under hygienic condition. The coarser particles of the bran shall be sifted out through sieve of 32 meshes per linear inch. It shall contain not more than 2.0 per cent of ash not less than 8.0 per cent of gluten. (both calculated dry substance). It</p>

shall contain not more than 0.35 per cent of acidit, expressed as lactic acid (extractable with water) and its moisture content shall not exceed 13 per cent.

49. Wheat Flour or Maida

Means the fine product made by milling or grinding cleaned wheat and bolting or dressing the resulting wheat meal. It shall contain not more than 0.7 per cent of ash and not less than 8 percent of gluten. It shall contain not more than 0.7 per cent of acidity expressed as lactic acid (extractable with water) with a moisture content not exceeding 13 per cent.

50. Suji

Means the purified middling of wheat obtained by grinding and bolting cleaned and washed wheat and freeing it from bran, germ, etc., to the desired extent. The material shall be obtained from sound and clean wheat. It shall be white to creamy in colour and shall have a characteristics state and smell. It shall be free from musty off odour, insect or fungus infestation, rodent contamination, grit and other extraneous matters. It shall pass through a No. 20 mesh sieve, with not more than 3 percent of it passing through a No. 100 mesh sieve. It shall contain not more than 1 percent of total ash (dry basis) not more than 13.0 percent of moisture, not more than 0.05 percent acid insoluble ash (on dry basis) not more than 0.35 percent of acidity expressed as lactic acid and not less than 7.5 per cent of gluten dry.

51. Corn Flour

Means the starch powder derived from any variety of corn or grain with or without harmless colouring and flavoring matters. It shall be of such fineness that not less than 98 percent of it pass through a No.50 mesh sieve with not less than 50 percent passing through 70 mesh sieve. It shall contain not more than 0.7 per cent of ash, not more than 13 percent of moisture and not more than 0.35 percent acidity expressed as lactic acid. (extractable with water).

52. Besan, Vasan

means the product obtained by milling or grinding cleaned gram (Chick Peas) and by sieving it. It shall contain not more than 3 percent of ash and not more than 0.5 per cent acidity expressed as lactic acid (extractable with water).

53. Vermicelli or Semai

means the material prepared from suji or maida obtained preferably from hard or semi hard wheat. It shall conform to the following specifications-

- a. Moisture shall not be more than 13 percent
- b. Total ash shall not be more than 1.0 percent
- c. Total protein (NX6.25) shall not be less than 8 percent
- d. Acid insoluble ash shall not be more than 0.05 percent
- e. Acidity shall not be more than 0.35 percent (expresses as lactic acid).

Starchy Food

- 54. Arrowroot** means the separated and purified starch from the rhizomes of the plant known as *Maranta arundinacea*. It shall have the characteristics appearance under microscope.
- 55. Sago or Sagodana** Means the starch obtained from the pitch of the sago palm. It shall have the characteristics appearance under microscopic, and shall conform to the following specifications-
- a. Moisture shall not be more than 12 per cent
 - b. Total ash shall not be more than 0.2 per cent
 - c. Carbohydrates shall not be less than 87 per cent (calculated on dry substance)
- 56. Shoti or Shoti Food** Means the starch obtained from rhizomes of various shoti plants. The material shall be white fine powder or pellets. It shall conform to the following standards-
- a. Moisture shall not be more than 15.0 per cent
 - b. Total ash shall not be more than 1.0 per cent (calculated on dry substance)
 - c. Acid insoluble ash shall not be more than 0.2 per cent.

2. Carbonated Soft Drinks

Under The Bangladesh Pure Food Rules 1967: Standards for Non alcoholic Beverages, which include Aerated water and Soda water, are prescribed. These are mandatory and enforced by government agencies.

Non Alcoholic Beverages

- 57. Aerated Water** Means potable water other than soda water sweetened with sugar or with saccharin or sucaryl, but not in combination. It shall be impregnated with carbon dioxide, of oxygen or with both, under pressure, with or without admixture of salts of sodium, potassium, lithium, magnesium, or calcium singly or in combination, with or without citric acid and of the permitted flavoring and colouring matters if any, and shall not contain tartaric acid except where grape juice has been used as an ingredient and shall not contain more than 0.1 per cent of phosphoric and Aerated water shall not contain any other mineral acid. It shall not contain any bad and other poisonous metals or any other added substances. Provided that aerated water shall be deemed to be below the standard of purity if it is manufactured from water which is unfit for drinking purposes or if the ice manufactured from such water is inserted in it. It shall conform to the standard of drinking water which are as follows-
- a. pH-7 to 8.3

- b. Total hardness- Shall not be more than 25 parts per 100,000
- c. Chloride (as NaCl) shall not be more than 6 parts per 100,000.
- d. Free ammonia Cal nitrogen- Shall not be more than 005 parts per 100,000
- e. Albuminoid ammoniacal nitrogen – Shall not be more than 005 parts per 100,000
- f. Oxygen absorbed (Tidy's process)-Shall not be more than 0.1 parts per 100,000
- g. Nitrates (as Nitrogen)- shall not be more than 005 parts per 100,000
- h. Sulphate- shall not be more than 4 parts per 100,000
- i. Iron shall not be more than 03 parts per 100,000
- j. Nitrities, copper, Zinc, lead, Sulphureted hydrogen- shall absent.
- k. Total colonies on agar at 37 C per cent shall not be more than 10.
- l. Presumptive coli in 100 cc shall not be more than 2.
- m. Bact. Coli (foecal type) in 100cc shall be absent.

58. Soda Water

means potable water impregnated with carbondioxide or oxygen or with both, under pressure, with or without admixture of salts of sodium, potassium, lithium, magnesium or calcium, singly or in combination and shall not contain any lead or other poisonous metal or any other added substance. Soda water shall be deemed to be below the standard of purity if it is manufactured from water which is unfit for drinking or if the ice manufactured from such water is inserted in it. The standard of purity of water is same as in No. 56.

Spices- the standards, specified for the various spices described below, shall apply to spices in any form whether whole or partly ground or powdered.

4. Prepared Frozen Foods

There are no standards Under the Bangladesh Pure Food Laws, 1967, for Frozen foods including fish, meat and poultry products.

Standard for bottled meat:

94. Bottled or canned meat

means a food prepared from clean, fresh, wholesome meats, free from infecting agents, contamination, filth, with or without water, vegetables, salt, condiments, spices, and permitted preservatives or colouring or flavouring substances. It shall be processed by heat in such a manner as to produce a sterile condition and packed in a hermetically sealed container.

5. Cow's Milk

Under The Bangladesh Pure Food Rules 1967, Milk and Products standardization have been prescribed. These standards include cow's milk along with other local processed milk products manufactured and traded in the country. All these standards are mandatory and enforced by government agencies.

The Schedule **Milk And Milk Products**

<u>S.No.</u>	<u>Article of Food</u>	<u>Description Of The Standards</u>
1	Cow Milk	Cow milk shall contain not less than 3.5 per cent of milk fat, not less than 8.5 per cent of milk solid other than milk fat, and shall be with a specific gravity from 1028 to 1032 at 15.50C. Lactose content shall not be less than 4.4 percent.
2	Buffalo Milk	Buffalo milk shall contain not less than 6.0 per cent of milk fat, and not less than 9.0 per cent of milk solid other than milk fat, and shall be with a specific gravity from 1028 to 21032 at 15.50C. amount of lactose shall not be less than 4.4 per cent.
3	Milk Or Mixed Milk (Cow and Buffalo)	the mixture in any proportion should approximate to the specification of cow milk (SL No. 1)

This schedule gives specification for a number of milk products such as; condensed milk, skimmed milk, ghee (clarified butter) butter, cheese, yogurt, ice-cream, sweets Chhana etc.

Table 1: Description/Definition (General)

	Description / Definition	Reference	Voluntary or Quality Standards, if any
Related Legislation			
General Description/Definitions			
Definition of food additives	No definite description exists under Bangladesh Pure Food Laws 1967.	Bangladesh Pure Food Laws, 1967.	BSTI standards for additives
Flavors	Definitions on Natural flavourings, Artificial Flavours and Imitation flavours is available	Bangladesh Pure Food Laws, 1967.	
Processing aids	No description available	Bangladesh Pure Food Laws, 1967.	
Carry Over	No details available under Bangladesh Food laws.	Bangladesh Pure Food Laws, 1967.	

Table 2: Description/Definition (Specific)

		Description / Definition	Reference	Voluntary or Quality Standards, if any
Related Legislation				
Specific Description/Definitions				
1.	List of Designated Food Additives	Colouring Matters and coal tar dyes Flavouring chemicals Class I and Class II Preservatives. Antioxidants Stabilizing agents Non nutritive constituents. Starches	Bangladesh Pure Food Laws, 1967.	
2.	List of Existing Food Additives			
3.	List of Plant or Animal Sources for Flavoring Agents	No description available	Bangladesh Pure Food Laws, 1967.	
4.	List of substances which are generally provided for eating or drinking as foods and are used as food additives as well.	Edible salt Baking Powder. Edible Gelatin Ice. Sugars, Jaggery, Honey and Sugar products Cereal powders and processed products Skimmed milk, Condensed Milk, Butter and clarified fat. Margarine and hydrogenated fats, vegetable oils, spices, dried fish, bottled meat, vinegar and pickles.	Bangladesh Pure Food Laws, 1967.	BSTI standards for food products , ingredients and additives. Some of them are based on Codex guidelines.
Negative list (if any)				
Specifications of Food Additives, Weights and Measures, Contaminants, Methods of Analysis and Sampling, Standards of manufacturing of food additives		Details provided above under specific additives and foods.	Bangladesh Pure Food Laws, 1967.	BSTI standards.
Official publication and/or gazette for food additives				

Table 3: Case Study 1 Instant Noodles

	Description / Definition Under Food Act	Reference	Voluntary or Quality Standards, if any
Scope and/or description	No specific description available	Bangladesh Pure Food Laws, 1967.	BSTI standards.
Positive and/or Negative list	Not available		
Use limitation and/or maximum level, if any			

Table 4: Case Study 2 Carbonated Soft Drinks

	Description / Definition under Food Act	Reference	Voluntary or Quality Standards, if any
Scope and/or description	Details provided under Overview on carbonated beverages.	Bangladesh Pure Food Laws, 1967.	
Positive and/or Negative list	No mineral acids. No 5arteric acid except when grape juice is used. No poisioness metals		
Use limitation and/or maximum level, if any	<p>pH 7.8 to 8.3</p> <hr/> <p>Total hardness > 25 ppm</p> <hr/> <p>Chloride > 6 ppm</p> <hr/> <p>Free ammonical N₂ < 5 ppm</p> <hr/> <p>Absorbed oxygen < 0.1ppm</p> <hr/> <p>Nitrates < 0.005 ppm</p> <hr/> <p>Sulphate < 5 ppm</p> <hr/> <p>Iron < 0.03 ppm</p> <hr/> <p>Nitrites, Copper, Zinc, Lead and Salphurated hydrogen Shall Not Be Absent.</p> <hr/> <p>(k) Total colonies on agar at 37 C percent shall not be more than 10.</p> <hr/> <p>(l) Presumptive coli in 100cc shall not be more than 2.</p> <hr/> <p>(m) Bact. Coli (foecal type) in 100 cc shall be absent.</p>		

Table 5: Case Study 3 Prepared Frozen Foods

	Description / Definition under Food Act	Reference	Voluntary or Quality Standards, if any
Scope and/or description	No standards available	Bangladesh Pure Food Laws, 1967.	
Positive and/or Negative list	Not available		
Use limitation and/or maximum level, if any	Not available		

Table 6 : Case Study 4 Cow's Milk

	Description / Definition under Food Act	Reference	Voluntary or Quality Standards, if any
Scope and/or description	Details provided under Overview on Cows milk and other milk products.	Bangladesh Pure Food Laws, 1967.	
Positive and/or Negative list	No reference n positive or negative list.		
Use limitation and/or maximum level, if any	Solid not Fat not less than 8.5 % Milk Fat not less than 3.5 % Lactose not less than 4.4 % Specific gravity between 1.028 and 1.032	Bangladesh Pure Food Laws, 1967.	