

Harnessing Efforts and Lessons Learnt in Harmonization of Approaches for Risk Assessment and Approval Process of Food Additives in ASEAN

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Presented at "Seminar on Food Additives: Perspectives on Scientific Processes, Regulatory Development & Impact of Changes", Hanoi, Vietnam, July 11, 2017 and Jakarta, Indonesia, July 13, 2017

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1

OUTLINE

- Introduction
 - ASEAN Economic Community (AEC) 2015 at a Glance
 - ATIGA (ASEAN Trade in Goods Agreement)
- Approaches in Harmonization of Food Safety Standards (Food Additives) in the ASEAN
- Progress in Food Additive Standards Harmonization
- Risk Assessment to Support Food Safety Standards Harmonization
- Summary

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2

ASEAN ECONOMIC COMMUNITY



Membership:
10 states

- Brunei
- Darussalam
- Cambodia
- Indonesia
- Lao PDR
- Malaysia
- Myanmar
- Philippines
- Singapore
- Thailand
- Viet Nam

Total Area:
4,435,674 km²

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3



ASEAN Economic Community 2015
"establish ASEAN as a single market and production base with the goal of making ASEAN more dynamic and competitive."

Under the new Blueprint, a stronger AEC is envisaged by 2025 with the following characteristics:

- A Highly Integrated and Cohesive Economy;
- A Competitive, Innovative, and Dynamic ASEAN;
- Enhanced Connectivity and Sectoral Cooperation;
- A Resilient, Inclusive and People-Oriented, People-Centred ASEAN; and
- A Global ASEAN

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4

ASEAN Economic Community 2025				
A Highly Integrated and Cohesive Economy	A Competitive, Innovative, and Dynamic ASEAN	Enhanced Connectivity and Sectoral Cooperation	A Resilient, Inclusive and People-Oriented, People-Centred ASEAN	A Global ASEAN
• Trade in Goods	• Effective Competition Policy	• Transport	• Strengthening the Role of Micro, Small, and Medium Enterprises	• More strategic and coherent approach towards external economic relations.
• Trade in Services	• Consumer Protection	• Information and Communications Technology	• Strengthening the Role of the Private Sector	• Review existing FTAs
• Investment Environment	• Strengthening Intellectual Property Rights Cooperation	• E-commerce	• Public-Private Partnership	• Enhance economic partnerships with non-FTA Dialogue Partners by upgrading and strengthening trade and investment work programmes/plans
• Financial Integration, Financial Inclusion, and Financial Stability	• Productivity-Driven Growth, Innovation, Research and Development, and Technology Commercialisation	• Energy	• Narrowing the Development Gap	• Engage with regional and global partners
• Facilitating Movement of Skilled Labour and Business Visitors	• Taxation Cooperation	• Food, Agriculture, and Forestry	• Contribution of Stakeholders on Regional Integration Efforts	• Continue strongly supporting the multilateral trading system and actively participating in regional fora
• Enhancing Participation in Global Value Chains	• Good Governance	• Tourism		• Continue to promote engagement with global and regional institutions
	• Effective, Efficient, Coherent and Responsive Regulations, and Good Regulatory Practice	• Healthcare		
	• Sustainable Economic Development	• Minerals		
	• Global Megatrends and Emerging Trade-related Issues	• Science and Technology		

<http://asean.org/storage/2012/05/11c.-April-2016-Fact-Sheet-of-AEC.pdf>



<http://asean.org/storage/2012/05/11c.-April-2016-Fact-Sheet-of-AEC.pdf>

ASEAN Economy
A Highly Competitive Economic Region

With a combined GDP of **US\$2.6 trillion** in 2014, ASEAN economy was the **7th largest in the world** and the **3rd largest in Asia**.

ASEAN FDI
A World Class Investment Destination

ASEAN attracted **US\$136 billion** in FDI in 2014, accounting for **11%** of global FDI inflows, up from only **5%** in 2007.

ASEAN Population
A Region Fully Integrated Community

In 2014, ASEAN was the **3rd largest market in the world** with **622 million people** behind only China and India.

ASEAN Trade
A More Integrated Market

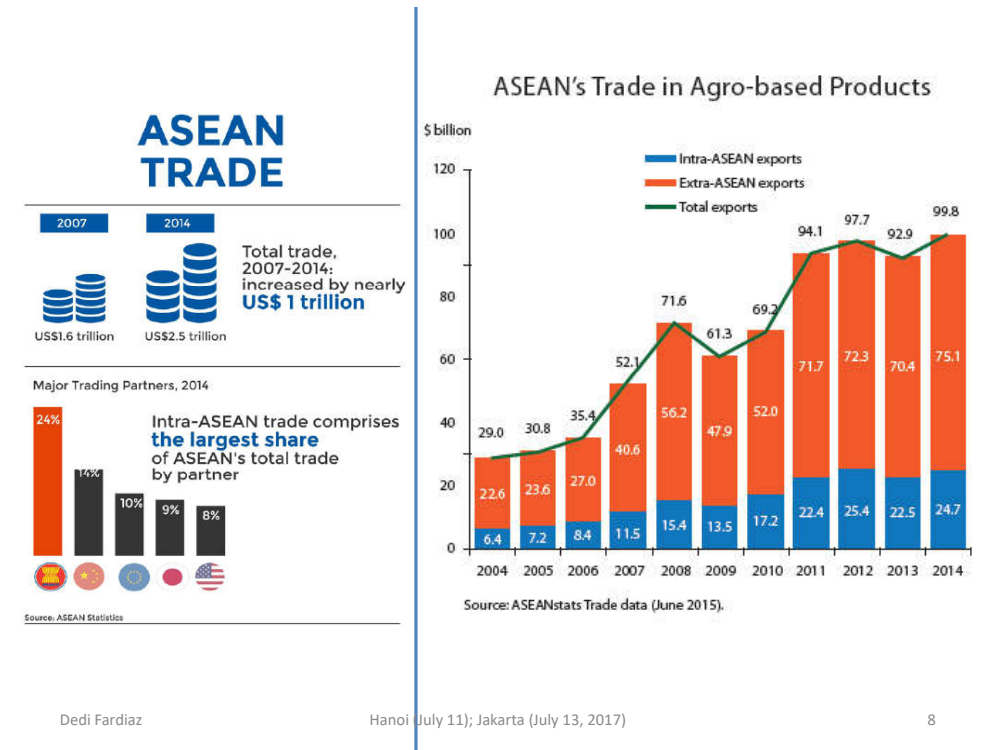
Total trade increased by nearly **US\$1 trillion** between 2007 and 2014, with **intra-ASEAN** trade comprising the **largest share** of ASEAN's total trade by partner.

ASEAN Connectivity
A More Connected Community

Annual tourist arrivals were up from **62 million** in 2007 to **105 million** in 2014, almost half of which were **intra-ASEAN**.

The rate of Internet subscription **more than doubled** from **11.8 per 100 inhabitants** in 2007 to **28.6** in 2014.

-of-AEC.pdf



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The objective of this Agreement is to achieve free flow of goods in ASEAN as one of the principal means to establish a single market and production base for the deeper economic integration of the region towards the realisation of the AEC by 2015

**CHAPTER 8
SANITARY AND PHYTOSANITARY
MEASURES**

Article 79

The objectives among others are to:

- facilitate trade between and among Member States while **protecting human, animal or plant life or health** in each Member State
- **strengthen co-operation** among Member States in protecting human, animal or plant life or health



**CHAPTER 7
STANDARDS, TECHNICAL REGULATIONS AND
CONFORMITY ASSESSMENT PROCEDURES**

Article 74 Standards

2 of 6 paragraphs

- 2 In harmonising national standards, Member States shall, as the first and preferred option, adopt the relevant international standards when preparing new national standards or revising existing standards.

Where international standards are not available, national standards shall be aligned among Member States

- 4 Harmonisation of the existing national standards and adoption of international standards into new national standards should be based on "Adoption of International Standards as Regional or National Standards", as contained in the ISO/IEC Guide 21 or its latest edition

The way we compared food additives (colorings) for the first time, 2002

	B	I	M	P	S	T	V	CODEX ADI	USFDA	FSANZ
Allura Red						⊘		0-7		
Amaranth		⊘				⊘		0-0.5	⊘	
Brilliant Blue								0-12.5		
Brilliant Black		⊘						0-1	⊘	
Carmoisin				⊘				0-4	⊘	
Chocolate Brown HT						⊘	⊘	0-1.5	⊘	
Erythrosine								0-0.1		
Ponceau 4R				⊘				0-4		
Sunset Yellow								0-2.5		
Tartrazine								0-7.5		
Fast Green FCF								0-2.5		
Quinoline Yellow	⊘			⊘		⊘		0-10	⊘	
Green S				⊘		⊘		No ADI	⊘	
Chlorophyll- Cu complex	⊘	⊘	⊘	⊘				0-15	⊘	
Indigo Carmine								0-5		
Red 2G	⊘	⊘		⊘	⊘	⊘		0-0.1	⊘	⊘

B = Brunei I = Indonesia M = Malaysia P = Philippines S = Singapore T = Thailand V = Vietnam

Food Safety Standards Harmonization Efforts in the ASEAN

Since 2002, the ASEAN Food Safety Standards Harmonization Workshop Series sponsored by ILSI Southeast Asia Region have been used as a forum for regulators in the region:

- to facilitate the exchange of information and scientific updates in food safety and standards;
- to discuss and share potential mechanisms for the improvement of food safety standards in the ASEAN member states;
- to facilitate harmonization efforts towards Codex, where they exist; or towards scientifically-sound regional standards where Codex standards are not in place; and
- to identify gaps for exposure data development and risk assessment capacity building.

How do we do it

GSFA Food Category System used as Harmonization Template

- In the first three workshops, the Working Group agreed on the use of **Codex General Standards for Food Additives (GSFA)** as the basis for harmonization.
- GSFA Food Category System** was used as template for comparing food additive standards **similarities** and **differences** among ASEAN member states.
- To further facilitate the harmonization efforts, **an online database** of ASEAN Food Safety Standards was developed and maintained by ILSI SEA Region. **This database contains the national data which can be compared with Codex GSFA for harmonization process.**

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13

Example General Standard for Food Additives

FAST GREEN FCF

INS: 143

Function: Colour

Food Cat. No.	Food Category	ML (mg/kg)
01.1.2	Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	100
01.7	Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	100
02.1.3	Lard, tallow, fish oil, and other animal fats	GMP
03.0	Edible ices, including sherbet and sorbet	100
04.1.2.4	Canned or bottled (pasteurized) fruit	200
04.1.2.5	Jams, jellies, marmelades	400
04.2.2.3	Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	300
04.2.2.4	Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	200
05.3	Chewing gum	300

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14

Example of Standard Comparison General Standard for Food Additives

FAST GREEN FCF

INS: 143

Function: Colour

No.	Food Category	GSFA ML (mg/kg)	B	C	I	L	M	M	P	S	T	V
01.1.2	Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks)	100										
01.7	Dairy-based desserts (e.g., pudding, fruit or flavoured yoghurt)	100										
02.1.3	Lard, tallow, fish oil, and other animal fats	GMP	Harmonized among AMSs and with Codex									
03.0	Edible ices, including sherbet and sorbet	100										
04.1.2.4	Canned or bottled (pasteurized) fruit	200	Each AMS fills the column with ML of Food Additive (Fast Green FCF) permitted in each food category									
04.1.2.5	Jams, jellies, marmelades	400										
04.2.2.3	Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds in vinegar, oil, brine, or soy sauce	300										
04.2.2.4	Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds	200										
05.3	Chewing gum	300										15

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About the ASEAN Food Safety Standards Database

The ASEAN Food Safety Standards Database is an initiative of the ASEAN Consultative Committee for Standards and Conformance (ACCSQ) Prepared Foodstuff Product Working Group (PPFWG) and has been developed with the help of the International Life Sciences Institute (ILSI) Southeast Asia Region.

The Database was initially developed back in 2003 as part of the ASEAN Food Safety Standards Harmonization Workshop series hosted by ILSI Southeast Asia Region, but has been officially handed over to the ACCSQ PFPWG at its 15th meeting on June 21, 2012 in Yogyakarta, Indonesia. The Database will primarily be used by the Task Force on Food Safety Standards Harmonization within the ACCSQ PFPWG to identify regional food safety standards harmonization targets and needs. ILSI Southeast Asia Region will continue to support the day-to-day administration of the database.

Currently, the ASEAN Food Safety Standards Database contains information on food additive standards from the 10 ASEAN Member States.

Database Administrator



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Participating Countries



Brunei Darussalam
Indonesia
Malaysia
Philippines
Thailand



Cambodia
Laos
Myanmar
Singapore
Vietnam

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Disclaimer: This database is made available solely for the purpose of information. It has no legal value. Users are advised to verify any information obtained from this database with the official sources. The managers of this database will not accept any responsibility or liability whatsoever for errors or omissions in the database.

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16

ASEAN Food Safety Standards Database
International Life Sciences Institute
Southeast Asia Region

Members
Database Search
Profiles
Members Login
Hi demo, Log out

Search
[PLACEHOLDER TEXT]: Describe the search function here

Additives (Organized according to functional classes)

- ACIDITY REGULATORS
- Acetic acid, glacial
- Ammonium acetate
- Ammonium carbonate
- Ammonium dihydrogen phosphate
- Ammonium hydrogen carbonate
- Ammonium hydroxide
- Ammonium lactate
- Ascorbic acid, L
- Calcium acetate
- Calcium carbonate
- Calcium dihydrogen diphosphate
- Calcium gluconate
- Calcium hydrogen phosphate
- Calcium hydroxide
- Calcium lactate
- Calcium malate, DL
- Calcium oxide
- Calcium polyphosphate
- Camuaba wax
- Citric acid
- Diammonium hydrogen phosphate
- Dicalcium diphosphate
- Dipotassium dihydrogen phosphate
- Dipotassium tartrate
- Disodium dihydrogen phosphate
- Disodium diphosphate
- Fumaric acid
- Glucosyl lactone
- Hydrochloric acid
- Li(+)-Tartaric acid
- Lactic acid, L-, D-, DL-

Food Categories (Select food category)

- 01.0.0.0 - DAIRY PRODUCTS AND ANALOGUES, EXCLUDING...
- 01.1.0.0 - Milk and dairy-based drinks
- 01.1.1.0 - MILK AND BUTTERMILK (PLAIN)
- 01.1.1.1 - MILK (plain)
- 01.1.1.2 - Buttermilk (plain)
- 01.1.2.0 - DAIRY-BASED DRINKS, FLAVOURED AND/OR FERMENTED...
- 01.2.0.0 - Fermented and renneted milk products (plain), excluding...
- 01.2.1.0 - FERMENTED MILKS (PLAIN)
- 01.2.1.1 - Fermented milk (plain), not heat-treated after fermentation...
- 01.2.1.2 - Fermented milk (plain), heat-treated after fermentation...
- 01.2.2.0 - RENNETED MILK (PLAIN)
- 01.2.0.0 - Condensed milk and analogues (plain)
- 01.3.1.0 - CONDENSED MILK (PLAIN)
- 01.3.2.0 - BEVERAGE WHITENERS
- 01.4.0.0 - Cream (plain) and the like
- 01.4.1.0 - PASTEURIZED CREAM (PLAIN)
- 01.4.2.0 - STERILIZED AND LIGHT CREAMS, WHIPPING CREAM...

Countries (Select country)

- Brunei
- Cambodia
- Indonesia
- Laos
- Malaysia
- Myanmar
- Philippines
- Singapore
- Thailand
- Vietnam

Search

ASEAN Food Safety Standards Database
International Life Sciences Institute
Southeast Asia Region

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Database Search
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Search Criteria
Food Categories: ALL
Additive/Substance: Preservative/Benzoates
Countries: ALL

Legend
GSFA Value | Lower than GSFA | Same as GSFA | Higher than GSFA

Results

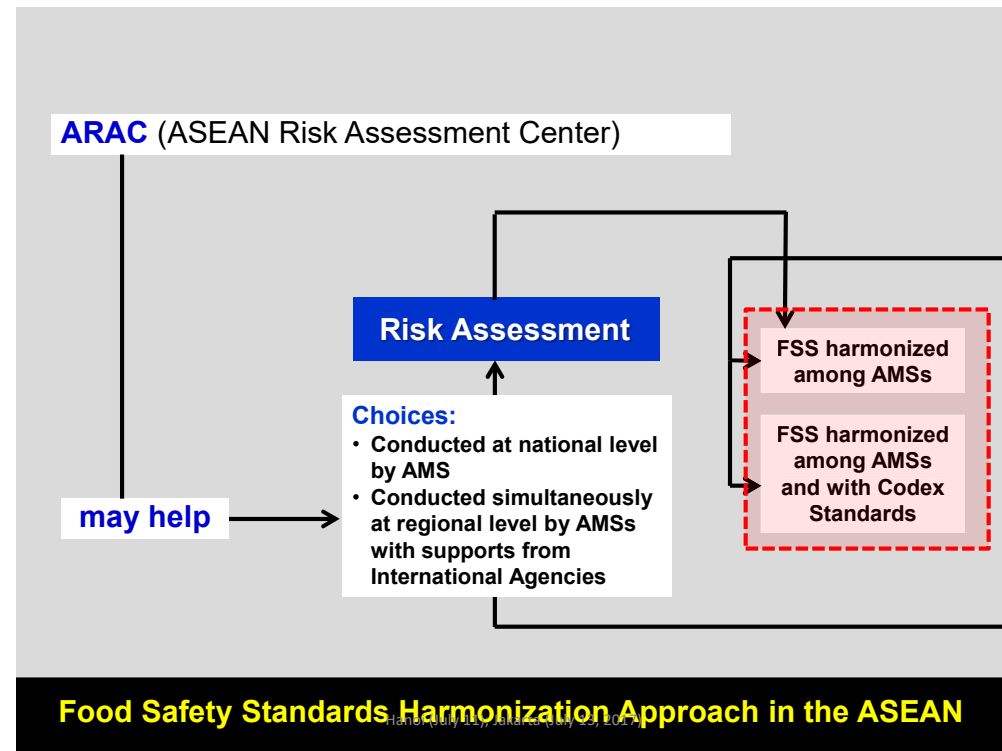
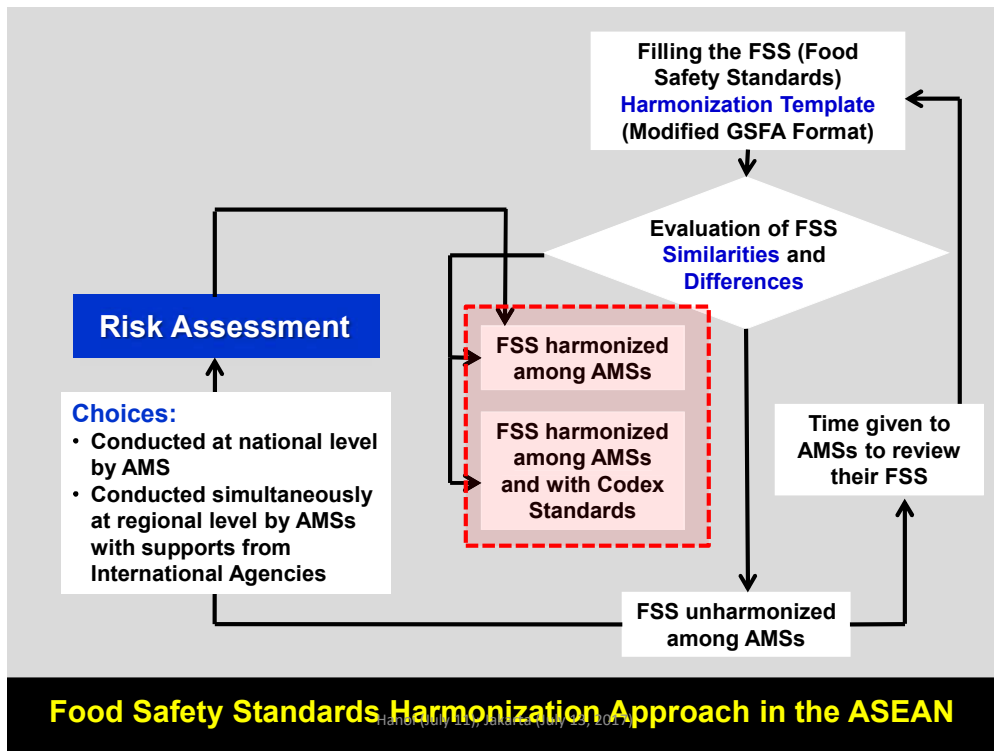
Food No./Description	GSFA Value (ppm)	Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand
01.0.0.0 DAIRY PRODUCTS AND ANALOGUES, EXCLUDING PRODUCTS OF FOOD CATEGORY 02.0	100 ppm	200 ppm (+10ppm)	60 ppm (-10ppm)	90 ppm (-10ppm)	200 ppm (+10ppm)	60 ppm (-10ppm)	NP	NP	NP	NP
01.1.0.0 Milk and dairy-based drinks	50 ppm	60 ppm (+10ppm)	60 ppm (+10ppm)	60 ppm (+10ppm)	60 ppm (+10ppm)	60 ppm (+10ppm)	60 ppm (+10ppm)	60 ppm (+10ppm)	NP	60 ppm (+10ppm)
01.1.1.0 MILK AND BUTTERMILK (PLAIN)	NP	80 ppm	80 ppm	80 ppm	80 ppm	80 ppm	80 ppm	80 ppm	NP	80 ppm
01.1.1.1 Milk (plain)	NP	NP	NP	NP	NP	80 ppm	NP	NP	NP	NP
01.1.1.2 Buttermilk (plain)	NP	NP	NP	NP	NP	80 ppm	NP	NP	NP	NP
01.2.0.0 DAIRY-BASED DRINKS, FLAVOURED AND/OR FERMENTED (e.g., ...)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP

Indicates specific notes/conditions of use (roll over to reveal)

Arrows to indicate whether lower or higher than GSFA value

Red indicates all countries not harmonized with GSFA
Blue indicates some (not all) countries harmonized with GSFA
Green indicates all countries harmonized with GSFA

Example of Standard Comparison





ASEAN MAXIMUM LEVEL FOR FOOD ADDITIVES FOR PREPARED FOODSTUFF PRODUCTS

This Document sets forth the conditions under which food additives may be used in 1st and 2nd priority product for prepared foodstuff where maximum use levels have been harmonized among ASEAN Member States and agreed by ASEAN Consultative Committee on Standard and Quality – Prepared Foodstuff Product Working Group (ACCSQ PFPWG). Food additives listed in this document refer to Codex General Standard for Food Additives (GSFA) (Codex Stan 192-1995), which has been discussed and agreed by ACCSQ PFPWG. ASEAN Member States could use other food additives based on Codex and/or their national legislation. This document will be updated taking into consideration changes to the Codex GSFA and ASEAN Member States' proposal

The terms used in this document, such as food additives, Maximum Use Level, GMP, Functional Class, are referred to Codex Standards (Codex STAN 192-1995 & CAC/GL 69-1989)

- 1st and 2nd priority product for prepared foodstuff
- Food additives in GSFA (Codex Stan 192-1995)

http://asean.org/?static_post=harmonization-of-standards-and-technical-requirements-in-asean
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Prepared Foodstuff

- ASEAN General Standards for the Labelling of Prepackaged Food
- ASEAN Maximum Level for Food Additives for Prepared Foodstuff Products
- ASEAN Principles and Criteria for the Establishment of Maximum Level for Contaminants and Toxins in Food and Feed
- ASEAN Food Safety Policy
- ASEAN Principles and Guidelines for National Food Control Systems (CAC/GL 82 MOD)
- ASEAN General Principles of Food Hygiene (CAC/RCP 1-1969, Rev.4 MOD)
- ASEAN Guidelines for the Design, Operation, Assessment and Accreditation of Food Import and Export Inspection and Certification Systems (CAC/GL 26 MOD)
- ASEAN Guidelines for Food Import Control Systems (CAC/GL 47 MOD)
- Guidelines for ASEAN Food Reference Laboratories (AFRL)
- ASEAN Principles for Food Import and Export Inspection and Certification (CAC/GL 20 MOD)

1st Priority Products Food Category based on GSFA

ADDITIVE	CODEX STAN 192-1995 Rev.2012 Max Level	05.2.3 Nougats and marzipans									
		BRUNEI	CAMBODIA	INDONESIA	LAO PDR	MALAYSIA	MYANMAR	PHILIPPINES	SINGAPORE	THAILAND	VIETNAM
ACETIC ACID, GLACIAL	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ACETIC AND FATTY ACID ESTERS OF GLYCEROL	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ACETYLATED DISTARCH ADIPATE	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ACETYLATED DISTARCH PHOSPHATE	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ACID TREATED STARCH	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AGAR	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ALGINIC ACID	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ALKALINE TREATED STARCH	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AMMONIUM HYDROGEN CARBONATE	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BROMELAIN	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CALCIUM 5'-GUANYLATE	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

- 04.1.2.5 Jams, Jellies, Marmalades
- 05.2 Confectionery including hard and soft candy, nougats, etc. other than food categories 05.1, 05.3 and 05.4
 - 05.2.1 Hard candy
 - 05.2.2 Soft candy
 - 05.2.3 Nougats and marzipans
- 05.4 Decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces
- 06.3 Breakfast cereals, including rolled oats
- 06.7 Pre-cooked or processed rice products, including rice cakes (Oriental type only)

2nd Priority Products

ADDITIVE	CODEX STAN 192-1996 Rev.2012	BRUNEI	CAMBODIA	INDONESIA	LAO PDR	MALAYSIA	MYANMAR	PHILIPPINES	SINGAPORE	THAILAND	VIETNAM
ACESULFAME POTASSIUM	500 mg/kg	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SORBITOL	GMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓


- 04.1.2.2 Dried fruit
- 04.1.2.3 Fruit in vinegar, oil or brine
- 04.1.2.6 Fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5
- 04.1.2.7 Candied fruit
 - 04.1.2.11 Fruit fillings for pastries
- 04.2.2.3 Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds in vinegar, oil, brine, or soybean sauce
- 05.1.1 Cocoa mixes (powders) and cocoa mass/cake
- 05.3 Chewing gum
- 06.2.1 Flours
- 06.2.2 Starches
- 07.0 Bakery wares
 - 07.1 Bread and ordinary bakery wares
 - 07.1.1 Breads and rolls
 - 07.1.1.1 Yeast-leavened breads and specialty breads
 - 07.1.1.2 Soda breads
 - 07.1.1.3 Other ordinary bakery products (e.g., bagels, pita, English muffins)
 - 07.1.1.4 Bread-type products, including bread stuffing and bread crumbs
 - 07.1.5 Steamed breads and buns
 - 07.1.6 Mixes for bread and ordinary bakery wares
 - 07.2 Fine bakery wares (sweet, salty, savoury) and mixes
 - 07.2.1 Cakes, cookies and pies (e.g., fruit-filled or custard types)
 - 07.2.2 Other fine bakery products (e.g., doughnuts, sweet rolls, scones, and muffins)
 - 07.2.3 Mixes for fine bakery wares (e.g., cakes, pancakes)
- 11.2 Brown sugar excluding products of food category 11.1.3
- 12.6 Sauces and like products
- 14.1.5 Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa

2nd Priority Products												
Food Category No. 07.1.2		Crackers, excluding sweet crackers										
ADDITIVE	CODEX STAN 192-1995 Rev. 2012	BRUNEI	CAMBODIA	INDONESIA	LAO PDR	MALAYSIA	MYANMAR	PHILIPPINES	SINGAPORE	THAILAND	VIETNAM	
16	ACETIC ACID, GLACIAL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
17	ACETIC AND FATTY ACID ESTERS OF GLYCEROL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18	ACETYLATED DISTARCH ADIPATE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19	ACETYLATED DISTARCH PHOSPHATE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
21	ACID TREATED STARCH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
22	AGAR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
23	ALGINIC ACID	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
24	ALKALINE TREATED STARCH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
25	ALPHA-AMYLASE FROM ASPERGILLUS ORYZAE VAR.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
26	ALPHA-AMYLASE FROM BACILLUS LICHENIFORMIS (CARBOHYDRASE)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
30	BUTYLUS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
35	AMMONIUM HYDROGEN CARBONATE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
41	BROMELAIN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
42	CALCIUM 8' GUANYLATE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
43	CALCIUM 5-INOSINATE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
45	CALCIUM ACETATE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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25



INTERNATIONAL FOOD STANDARDS

Food and Agriculture Organization of the United Nations

GENERAL STANDARD FOR FOOD ADDITIVES

CODEX STAN 192-1995

Adopted in 1995. Revision 1997, 1999, 2001, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016

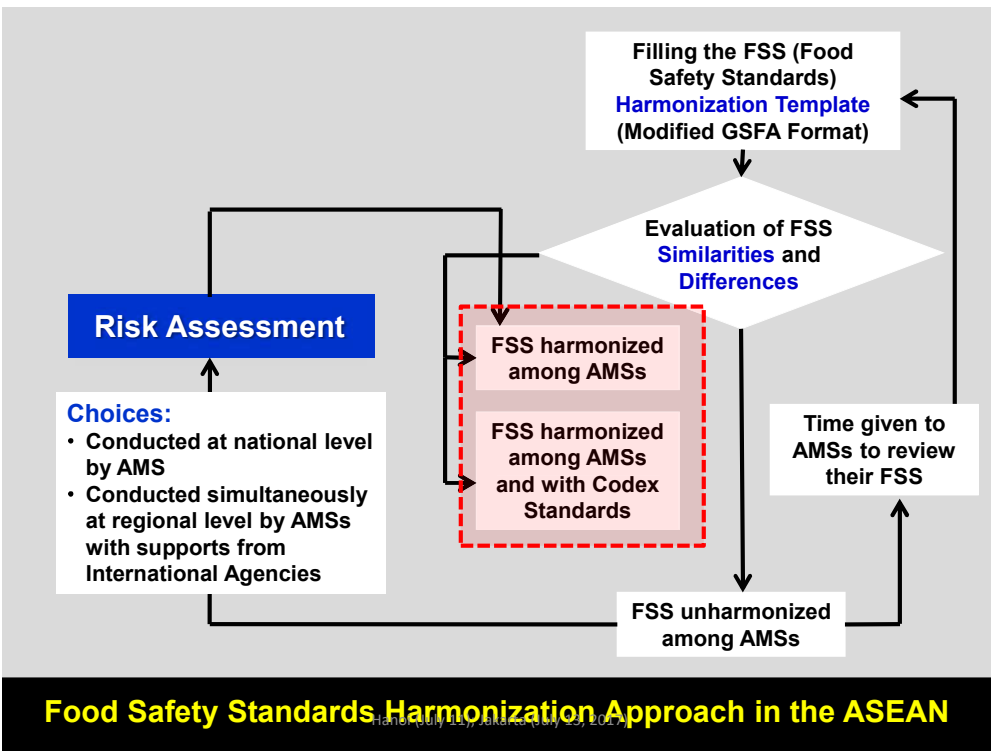
GENERAL STANDARD FOR FOOD ADDITIVES

TABLE THREE

Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP

INS No	Additive	Functional Class	Year Adopted	Acceptable, including foods conforming to the following commodity standards
260	Acetic acid, glacial	Acidity regulator, Preservative	1999	CS 117-1981
472a	Acetic and fatty acid esters of glycerol	Emulsifier, Sequestrant, Stabilizer	1999	CS 117-1981
1422	Acetylated distarch adipate	Emulsifier, Stabilizer, Thickener	1999	CS 117-1981
1414	Acetylated distarch phosphate	Emulsifier, Stabilizer, Thickener	1999	CS 117-1981
1451	Acetylated oxidized starch	Emulsifier, Stabilizer, Thickener	2005	CS 117-1981
1401	Acid-treated starch	Emulsifier, Stabilizer, Thickener	1999	CS 117-1981, CS 105-1981
406	Agar	Bulking agent, Carrier, Emulsifier, Gelling agent, Glazing agent, Humectant, Stabilizer, Thickener	1999	CS 96-1981, CS 97-1981, CS 117-1981
400	Alginate	Bulking agent, Carrier, Emulsifier, Foaming agent, Gelling agent, Glazing agent, Humectant, Sequestrant, Stabilizer, Thickener	1999	CS 117-1981, CS 105-1981
1402	Alkaline treated starch	Emulsifier, Stabilizer, Thickener	1999	CS 117-1981, CS 105-1981
1100(i)	alpha-Amylase from Aspergillus oryzae var.	Flour treatment agent	1999	
1100(iv)	alpha-Amylase from Bacillus megaterium expressed in Bacillus subtilis	Flour treatment agent	1999	
1100(ii)	alpha-Amylase from Bacillus stearothermophilus	Flour treatment agent	1999	

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Example: Food Additive Risk Assessment

RA
RM

Risk Assessment of FA for harmonization in ASEAN:

- Calculation of the potential daily intake.
- Comparison of the potential daily intake with the ADI.
- Recommendation of approved uses and use levels which ensure that the potential daily intake is less than the ADI.

Need Dietary Exposure Assessment Data

Developing Common ASEAN Food Consumption Data for Dietary Exposure Assessments

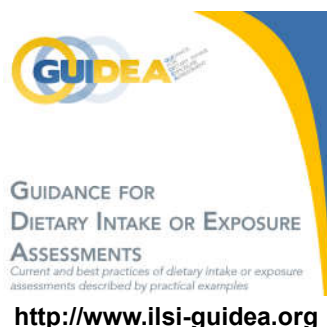
1st Workshop on 'ASEAN Food Consumption Data and Exposure Assessment', October 10-13, 2011, Kuala Lumpur, Malaysia

Organized Jointly by ILSI Southeast Asia Region, FAO and Food Safety & Quality Division, Ministry of Health, Malaysia

Objectives:

- Discuss availability of **food consumption data** in ASEAN
- Discuss **food consumption survey methods**
- Identify steps to enable existing food consumption data to be used for **dietary exposure assessment** purposes among ASEAN countries

Hanoi (July 11); Jakarta (July 13, 2017)



29

Developing Common ASEAN Food Consumption Data for Dietary Exposure Assessments

2nd Workshop on 'ASEAN Food Consumption Data and Exposure Assessment', November 19-21, 2013, Kuala Lumpur, Malaysia

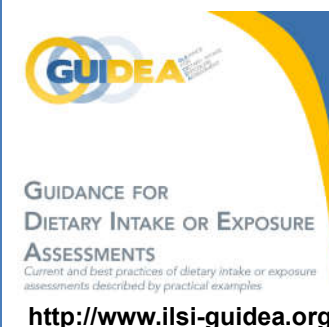
Organized Jointly by ILSI Southeast Asia Region, FAO and Food Safety & Quality Division, Ministry of Health, Malaysia

Objectives:

- Discuss **finalization of common food categories** for the ASEAN Food Consumption Database
- Discuss challenges in transferring national data into the common template

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30

Harmonized Food Categories for ASEAN Food Consumption Data (ILSI Southeast Asia Region, 2014)

No	Food Category	No	Food Category
1	CEREAL & PRODUCTS (4 sub-cat)	11	SUGAR, SYRUP & CONFECTIONARY (3 sub-cat)
2	PULSES, NUTS, SEEDS & PRODUCTS (4 sub-cat)	12	CONDIMENTS, SPICES & SAUCES (4 sub-cat)
3	STARCHY ROOTS, TUBERS & PRODUCTS (2 sub-cat)	13	BEVERAGES: ALCOHOLIC (3 sub-cat)
4	FRUITS & PRODUCTS (9 sub-cat)	14	BEVERAGES: NON-ALCOHOLIC (8 sub-cat)
5	VEGETABLES & PRODUCTS (13 sub-cat)	15	SNACKS NOT ELSEWHERE SPECIFIED
6	MEAT & PRODUCTS (7 sub-cat)	16	SWEETENERS & SUGAR SUBSTITUTES
7	FISH, SEAFOOD & PRODUCTS (6 sub-cat)	17	FOODS FOR INFANTS & BABY FOODS
8	EGG & PRODUCTS (2 sub-cat)	18	SPECIAL PURPOSE / FUNCTIONAL FOODS
9	MILK & PRODUCTS (3 sub-cat)	19	FOOD SUPPLEMENTS & NATURAL EXTRACTS
10	FATS & OILS (3 sub-cat)	20	COMPOSITE FOOD

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31

Potential Uses & Benefits of the ASEAN FCD

- Could be used to **conduct dietary exposure assessment** at both the national level and regional level
- Countries that do not have specific data (e.g. no FCD for children or no data for certain foods) can **use data of other countries** to calculate exposure estimates (using appropriate assumptions)
- Countries that do not have any national FCD could use data of other countries in the ASEAN FCD to calculate exposure estimates ('surrogate data' especially if dietary patterns considered similar, i.e. Lao & Thai)
- Could also be used to **calculate what are 'ASEAN exposure estimates' to a particular hazard**
- Also relevant to the work of ASEAN WGs such as PFPWG in relation to harmonization of food safety standards, as described in the PFPWG's "**Decision Tree for Harmonizing Divergence on Food Safety Standards**"

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32

EXAMPLE OF EXPOSURE ASSESSMENT METHOD

1. Determination of **Food Groups, and Sub-Food-Groups**
2. Preparation of **Portion Size Measurement Tools**



3. Determination of **Targeted Respondents**
4. Preparation of **Sampling Framework**
5. Determination of **Survey Locations**
6. Preparation of **Questionnaire for 24-hour dietary intake (24-hour Recall)** interview
7. **Training of Surveyor**
8. Implementation of **the Food Consumption Survey**
9. Data processing for **Risk Characterization**
10. Recommendation of **Risk Management**

Harmonized Food Category for ASEAN Food Consumption Data

1. Cereal & Products
2. Pulses, Nuts, Seeds & Products
3. Starchy Roots, Tubers & Products
4. Fruits & Products
5. Vegetables & Products
6. Meat & Products
7. Fish, Seafoods & Products
8. Egg & Products
9. Milk & Products
10. Fats & Oils
11. Sugar, Syrup & Confectionary
12. Condiments, Spices & Sauces
13. Beverages: Alcoholic
14. Beverages: Non-Alcoholic
15. Snacks Not Elsewhere Specified
16. Sweeteners & Sugar Substitutes
17. Foods for Infants & Baby Foods
18. Special Purpose/Functional Foods
19. Food Supplements & Natural Extracts
20. Composite Foods

Food Consumed (g)	Food Consumed/person/day (g/day)

We can calculate

FA consumed/ person/day (mg/person/day or mg/kg BW/day)

Compare with ADI

SUMMARY

- **ASEAN Economic Community** has been established as a single market and production base with the goal of making ASEAN more dynamic and competitive.
- **Food Safety Standards Harmonization** is an Important Step to Support ASEAN Single Market.
- **Efforts to harmonize food safety standards in the ASEAN** have been made since 2002, through the ASEAN Food Safety Standards Harmonization Workshop Series sponsored by **ILSI Southeast Asia Region**
- ASEAN Maximum Level for Food Additives for Prepared Foodstuff Products has been harmonized in ASEAN Member States for **the 1st and 2nd priority products**. Food additives listed in the document refer to **GSFA (Codex Stan 192-1995)**
- To continue support the harmonization of food additive standards, **Risk Assessment (exposure assessment in particular)** of food additives is required, started by conducting national or regional food consumption data collection.

Thank You Very Much

