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NATIONAL TECHNICAL REGULATION OF FOOD SAFETY FOR ALCOHOLIC BEVERAGES

National Technical Regulation of
Food Safety for Alcoholic Beverages

Hanoi - 2010

Introduction

QCVN .... : 2010/BYT is prepared by the Division of National Regulation of Beverages, approved by the Department of Food Safety and Hygiene, and issued in accordance with Circular No...../2010/TT-BYT dated....(day) (month) .. (year) 2010 by the Ministry of Health.

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NATIONAL TECHNICAL REGULATION OF FOOD SAFETY FOR ALCOHOLIC BEVERAGES

National Technical Regulation of Food Safety for Alcoholic Beverages

1. GENERAL RULES

1.1. Adjustment Scope

This regulation sets the limits for food safety criteria and requirements for alcoholic beverage administration.

This regulation does not apply to functional food.

1.2. Application Subject

This regulation applies to

a) Entities importing, manufacturing, and trading in alcoholic beverages in Vietnam;

b) Involved government administration agencies

1.3. Glossary

In this regulation, the following terms are defined accordingly:

1.3.1. Keg Beer

Fermented beverage with low alcohol content, made from barley malt, other alternative materials, houblon flower, beer yeast and water.

1.3.2. Canned beer and bottled beer

Fermented beverage with low alcohol content, made from barley malt, other alternative materials, houblon flower, beer yeast and water that has been processed and bottled or canned.

1.3.3. Wine

Alcoholic beverage made by fermentation of fruits without distillation.

1.3.4. Sparkling wine

Alcoholic beverage made by fermentation of fruits, starches or carbohydrates without distillation and with added carbon dioxide.

1.3.5. Distilled liquor

Alcoholic beverage made by distillation of fermentedjuice derived from starchand carbohydrates.

1.3.6. Mixed liquor

Alcoholic beverage prepared as a combination of food-grade alcohol, water and/or distilled liquors, in which food additives and fruit extracts may be used.

2. TECHNICAL REQUIREMENTS

2.1. Requirements for raw materials used to make alcoholic beverages

2.1.1. Water used to make alcoholic beverages shall be in compliance with QCVN 01:2009/BYT regarding eating and drinking water, issued in accordance with Circular No. 04/2009/TT-BYT dated June 17, 2009 by the Ministry of Health.

2.1.2. Food-grade alcohol used to make alcoholic beverages shall be in compliance with Appendix I of this regulation.

2.2. Food safety requirements for alcoholic beverages

2.2.1. Chemical criteria described in Appendix II of this regulation.

2.2.2. Heavy metal limits described in Appendix III of this regulation.

2.2.3. Microbiological criteria described in Appendix IV of this regulation.

2.1.4. List of allowed food additives in compliance with current applicable rules.

2.1.5. Testing methods with accuracy level similar to the methods and criteria described in Appendix II, Appendix III, and Appendix IV.

2.1.6. Identification number and complete name of the sampling and testing methods described in Appendix V of this regulation.

2.1.7. Should there be the needs for verification of criteria with no testing methods available, the Ministry of Health shall provide guidelines that are based on other current domestic or foreign applicable methods with known accepted values.

2.3. Labeling

Alcoholic beverage labeling shall be in compliance with Decree No. 89/2006/NĐ-CP dated August 30, 2006 issued by the Government regarding Product Labeling and Implementation Guidelines.

3. ADMINISTRATION REQUIREMENTS

3.1. Compliance announcement, compliance certification, compliance certification stamp, and compliance evaluation methods

3.1.1. For in-country imported, manufactured, and traded alcoholic beverages:

a) A compliance announcement shall be made in accordance with section 2.1, part 2 of this regulation;

b) The beverages shall have a compliance certification stamp and product label as required by law;

c) The Ministry of Health shall provide guidelines for the compliance certification process for each specific phase. The compliance certification process shall be executed as follows:

– A-Grade criteria: Mandatory compliance evaluation testing;

– B-Grade criteria: Compliance evaluation testing not required, but entities manufacturing, importing, and processing alcoholic beverages shall meet the requirements for B-Grade criteria.

3.1.2. Compliance announcement, compliance certification, compliance certification stamp and compliance evaluation method shall be in compliance with *Guidelines on Standard Compliance Certification, Compliance Certification, and Standard Compliance Announcement* issued in accordance with Decision No. 24/2007/QĐ-BKHCN dated September 28, 2007 by the Minister of Science and Technology.

3.2. Quality control

Any in-country imported, manufactured, and traded alcoholic beverages shall be inspected for quality control purposes in accordance with the laws on product and merchandise quality.

4. RESPONSIBILITIES OF INVOLVED ENTITIES

4.1. Any entities involved in alcoholic beverage importing and manufacturing activities shall:

a) Complete the compliance announcement process in accordance with section 2.2, part 2 of this regulation;

b) Complete the responsibilities and duties in accordance with *Guidelines on Standard Compliance Certification, Compliance Certification, and Standard Compliance Announcement* issued in accordance with Decision No. 24/2007/QĐ-BKHCN by the Minister of Science and Technology.

4.2. Entities shall be allowed to trade only certified quality alcoholic beverages with compliance certification stamps and product labels in accordance with current applicable rules.

5. IMPLEMENTATION

5.1. The Department of Food Safety and Hygiene and the Ministry of Health shall coordinate actions with relevant authorities to provide guidelines and support implementations of this regulation.

5.2. Based on the administration requirements, the Department of Food Safety and Hygiene shall submit requests to the Ministry of Health asking for modifications and amendments to this regulation accordingly.

5.3. If any modifications, amendments or replacements are made to any provisions of this regulation, it shall be executed in accordance with any current applicable written laws.

Appendix I

REQUIREMENTS FOR FOOD-GRADE ALCOHOL

USED TO MAKE ALCOHOLIC BEVERAGES

Criteria Name	Required Level	Testing Method
1. Alcohol by Volume, Ethanol Volume Percentage at 20 ^{o}C Temperature, Not lower than	96	TCVN 8008:2009; AOAC 982.10
2. Aldehyde Content, per acetaldehyde, mg/l Ethanol 100^{o}, Not higher than	5	AOAC 968.09; TCVN 8009:2009; AOAC 972.08
3. Methanol Content, g/l Ethanol 100^{o}, Not higher than	0.3	TCVN 8010:2009; AOAC 972.11

Appendix II

CHEMICAL CRITERIA FOR ALCOHOLIC BEVERAGES

Criteria Name	Maximum Level	Testing Method	Criteria Categories
I. Beer Products			
1. Diacetyl Content, mg/l	0.2	TCVN 6058:1995	A
II. Wines and Sparkling Wines			
1. Methanol Content, g/l Ethanol 100^o	3	TCVN 8010:2009; AOAC 972.11	A
2. Sulfur dioxide Content (SO_2), mg/l Ethanol 100^o	300	AOAC 940.20	A
3. Cyanide Content, mg/l Ethanol 100^o	0.1	AOAC 973.20	A
III. Distilled Liquors and Mixed Liquors			
1. Aldehyde Content, per acetaldehyde, mg/l Ethanol 100^o	5	AOAC 968.09; TCVN 8009:2009; AOAC 972.08	A
2. Methanol Content, g/l Ethanol 100^o	15	TCVN 8010:2009; AOAC 972.11	A

Appendix III

HEAVY METAL LIMITS FOR ALCOHOLIC BEVERAGES

Criteria Name	Maximum Limit	Testing Method	Criteria Categories
1. Lead (for wines and sparkling wines), mg/l	0.2	TCVN 7929:2008 (EN 14083:2003); TCVN 8126:2009	A
2. Tin (for products packed in tin cans), mg/l	150	TCVN 7788:2007	A

Appendix IV

MICROBIOLOGICAL CRITERIA FOR ALCOHOLIC BEVERAGES

Criteria Name	Maximum Limit	Testing Method	Criteria Categories
I. Keg Beer			
1. Total Aerobic Bacteria Concentration, CFU/ml of product	1000	TCVN 4884:2005 (ISO 4833:2003)	A
2. *E. coli*, CFU/ml of product	Not allowed	TCVN 6846:2007 (ISO 7251:2005)	A
3. *Clostridium perfringens*, CFU/ml of product	Not allowed	TCVN 4991:2005 (ISO 7937:2004)	A
4. Total Yeast and Mold Concentration, CFU/ml of product	100	TCVN 8275-1:2009 (ISO 21527-1:2008)	A
II. Bottled Beer, Canned Beer and Liquors with Alcohol by volume less than 25^{o}			
1. Total Aerobic Bacteria Concentration, CFU/ml of product	10	TCVN 4884:2005 (ISO 4833:2003)	A
2. *E. coli*, CFU/ml of product	Not allowed	TCVN 6846:2007 (ISO 7251:2005)	A
3. *Staphylococcus aureus*, CFU/ml of product	Not allowed	TCVN 4830-1:2005 (ISO 6888-1:1999, Amd 1:2003); TCVN 4830-3:2005 (ISO 6888-3:2003)	A
4. *Streptococci faecal*, CFU/ml of product	Not allowed	TCVN 6189-2 (ISO 7899-2)	A
5. *Pseudomonas aeruginosa*, CFU/ml of product	Not allowed	ISO 16266:2006	A
6. *Clostridium perfringens*, CFU/ml of product	Not allowed	TCVN 4991:2005 (ISO 7937:2004)	A

Appendix V

LIST OF TESTING METHODS FOR FOOD SAFETY CRITERIA

FOR ALCOHOLIC BEVERAGES

I. Testing Methods for Chemical Criteria

1. TCVN 6058:1995 Beer – Determination of diacetyl and other diacetone products
2. TCVN 8008:2009 Distilled liquors – Determination of alcohol by volume
3. TCVN 8009:2009 Distilled liquors - Determination of anhydride content.
4. TCVN 8010:2009 Distilled liquors - Determination of methanol content.
5. AOAC 968.09 Alcohols (Higher) and Ethyl Acetate in Distilled Liquors
6. AOAC 972.08 Aldehydes in Distilled Liquors. Titrimetric Method (Aldehyde in distilled liquors. Titrimetric method)
7. AOAC 972.11 Methanol in Distilled Liquors. Gas Chromatographic Method (Methanol in distilled liquors. Gas chromatographic method)
8. AOAC 973.20 Cyanide in wines (Cyanide in wines)
9. AOAC 940.20 Sulfurous acid in wines (Sulfurous acid in wines)
10. AOAC 982.10 Alcohol by volume in distilled liquors. Densitometric method (Alcohol by volume in distilled liquors. Densitometric method)

II. Testing Methods For Heavy Metals

1. TCVN 7788:2007 Canned foods - Determination of tin content by atomic absorption spectrophotometry
2. TCVN 7929:2008 (EN 14083:2003) Foodstuffs – Determination of trace elements - Determination of lead, cadmium, chromium, molybdenum levels by graphite furnace atomic absorption spectrophotometry (GFAAS) after pressure digestion.
3. TCVN 8126:2009 Foodstuffs - Determination of lead, cadmium, zinc, copper, and iron levels - Atomic absorption spectrophotometry after microwave digestion.

III. Microbiological Testing Methods

1. TCVN 4830-1:2005 (ISO 6888-1:1999, Amd 1:2003), Microorganisms in food and animal feeds – Enumeration method for coagulate-positive *Staphylococci* (*Staphylococcus aureus* and other species) on agar plates – Part 1: Technique using Baird-Parker agar medium
2. TCVN 4830-3:2005 (ISO 6888-3:2003), Microorganisms in food and animal feeds – Enumeration method for coagulate-positive *Staphylococci (Staphylococcus aureus* and other species) on agar plates – Part 3: Detection and use of most probable number (MPN) technique for low numbers
3. TCVN 4884:2005 (ISO 4833:2003), Microorganisms in food and animal feeds – Enumeration method for microorganisms on agar plates – Colony counting technique at 30°C.
4. TCVN 4991:2005 (ISO 7937:2004), Microorganisms in food and animal feeds - Enumeration method for *Clostridium perfringens* on agar plates – Colony counting technique.
5. TCVN 6189-2 (ISO 7899-2),Water quality – Detection and enumeration of Streptococcus – Part 2: Membrane filtration method
6. TCVN 6846:2007 (ISO 7251:2005), Microorganisms in food and animal feeds – Detection and enumeration methods for presumptive *Escherichia coli* – Most probable number technique (MPN).
7. TCVN 8275-1:2009 (ISO 21527-1:2008), Microorganisms of food and animal feeds – Enumeration method for yeast and mold - Part 1: Colony counting technique in products with water activity level higher than 0.95
8. ISO 16266:2006 Water quality – Detection and enumeration of *Pseudomonas aeruginosa* – Method by membrane filtration