PHILIPPINE NATIONAL STANDARD

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ICS 67.180.10

White sugar – Specification

BUREAU OF PRODUCT STANDARDS

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Foreword

Sugar is a leading export earning crop of the Philippines. Despite fluctuating prices, global market trends show an increased production and demand for safe and quality raw and white sugar. Consequently, the Department of Agriculture through the Bureau of Agriculture and Fisheries Product Standards (BAFPS) and Sugar Regulatory Administration (SRA), initiated the revision of the Philippine National Standards for Raw Cane (PNS 1097:1993) and White Sugar (PNS 1098:1993) to help boost the local sugar industry and ensure that the locally produced and traded sugars meet the current international standards of safety and quality.

The Technical Working Group (TWG) composed of BAFPS, SRA, Philippine Sugar Millers Association (PSMA) and representative from First Farmers Holding Corporation took into considerations provisions of the Codex Standard for Sugars (CODEX STAN 212-1999 (Amd. 1-2001), International Commission for Uniform Methods of Sugar Analysis (ICUMSA) new methods, new SRA data analysis, BFAD rules and regulations, and comments from all stakeholders (e.g. producers/growers, millers, refiners, traders, bottlers, consumers) in all public consultations held in Bacolod, Cebu, Davao and Manila.

This standard sets a series of minimum requirements to be observed in the production and sale of raw cane sugar as well as essential composition and quality factors, including methods of analysis, necessary for government regulatory activity, consumer protection and fair trade.

1 Scope and description

This standard applies to the following sugars intended for human consumption without further processing (synonyms are in round brackets). It includes sugars sold directly to the final consumer and sugars used as ingredients in foodstuffs. The description of each of the sugars is also given below:

Sugar	Description
White sugar, Premium grade	Purified and crystallised sucrose (saccharose) with a polarisation not less than 99.8ºZ.
White sugar, Standard grade	Purified and crystallised sucrose (saccharose) with a polarisation not less than 99.7ºZ.
Plantation or mill white sugar	Purified and crystallized sucrose (saccharose) with a polarization not less than 99.5ºZ.

2 Food additives

Only food additive listed below may be used and only within the limits specified. Other additives from the Codex General Standard for Food Additives (GSFA) and/or BFAD Circular 2006-016 or "Updated List of Food Additives" approved list may be used.

Wherever possible levels shall be as low as technologically achievable.

2.1 Sulphur dioxide

Sugar	Maximum permitted level (mg/kg)
White sugar, premium and standard grade	15
Plantation or mill white sugar	20

3 Contaminants

3.1 Heavy metals

White sugar shall comply with the maximum limits established by the Codex Alimentarius Commission.

3.2 Pesticide residues

White sugar shall comply with those maximum residue limits established by the Codex Alimentarius Commission for this commodity.

4 Hygiene

It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene recommended by the Codex Alimentarius Commission (CAC/RCP 1-1969 Rev. 4-2003) and other relevant Codes of Hygienic Practices. Provisions of the Revised Guidelines on Current Good Manufacturing Practices, Packing, Repacking, or Holding Food (BFAD Administrative Order No. 153 s. 2004), including Inspection Checklist for Sugar Millers/Refiners should apply.

White sugar should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997) and BFAD Guidelines for the Assessment of Microbiological Quality of Processed Foods (BFAD Bureau Circular 01-A s. 2004).

5 Labelling

In addition to the provisions of the General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985, Rev 6. 2008), provisions of the Consumer Act of the Philippines (RA7394), Rules and Regulation Governing the Labeling of Prepackaged of Food Products Distributed in the Philippines (BFAD AO 88-B s.1984) and other existing BFAD rules, regulations and resolutions, the following specific provision shall apply:

5.1 The name of the food

White sugar must conform to the description given for that product in clause 1 of the standard.

6 Methods of analysis and sampling

See Volume 13 of the *Codex Alimentarius*.

Annex

1. Essential composition and quality factors

The composition and quality factors covered for this standard are set out in the following table:

Table 1 – Additional composition and quality factors

Composition and quality factors	White sugar		PMWS
	Premium grade	Standard grade	
Conductivity ash (% m/m)	**≤ 0.03**	**≤ 0.06**	**≤ 0.1**
Invert sugar content (% m/m)	**≤ 0.04**	**≤ 0.08**	**≤ 0.1**
Loss on drying (% m/m)	**≤ 0.04**	**≤0.08**	**≤0.1**
Colour (ICUMSA units)	**≤ 50**	**≤ 120**	**≤150**

2. Additional methods of analysis

Codex Stan 234-1999 Recommended Methods of Analysis and Sampling. (See also Volume 13 of the *Codex Alimentarius)*

Composition and quality factors	White sugar	PMWS
Polarization	ICUMSA GS 2/3-1(1994) Polarimetry	ICUMSA GS 1/2/3-1(1994) Polarimetry
Conductivity ash (% m/m)	ICUMSA GS 2/3-17 (2002) – Conductimetry	ICUMSA GS 1/3/4/7/8-13 (1994) – Conductimetry
Invert sugar content (% m/m)	ICUMSA GS 2/3/9-5 (2007) – Titrimetry (Knight and Allen EDTA Method)	ICUMSA GS 2/3/9-5 (2007) – Titrimetry (Knight and Allen EDTA Method)
Loss on drying (% m/m)	ICUMSA GS 2/1/3/9-15 (2007) – Gravimetry	ICUMSA GS 2/1/3/9-15 (2007) – Gravimetry
Colour (ICUMSA units)	ICUMSA GS 2/3-10(1998)	ICUMSA GS 2/3-10(1998)
Sulfur dioxide	ICUMSA GS 2/3-35(2000) – Enzymatic Method ICUMSA GS 2/1/7-33 (2005) –Rosaniline Colorimetric Method	ICUMSA GS 2/3-35(2000) – Enzymatic Method ICUMSA GS 2/1/7-33 (2005) –Rosaniline Colorimetric Method

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BFAD AO 88-B s. 1984, Rules and Regulation Governing the Labelling of Prepackaged of Food Products Distributed in the Philippines

BFAD AO 153 s. 2004, Revised Guidelines on Current Good Manufacturing, Packing, Repacking or Holding Food

BFAD Bureau Circular 01-A s. 2004, Guidelines for the Assessment of Microbiological Quality of Processed Foods

Codex Stan 1-1985, Rev. 6-2008, Codex General Standard for the Labelling of Prepackaged Foods

Codex Stan 234-1999, Codex Standard for General Methods of Analysis and Sampling

CAC/GL 21-1997, Codex Principles for Establishment and Application of Microbiological Criteria for Foods

Codex Stan 212-1999, Amd. 1-2001, Codex Standard for Sugars

CAC/RCP 1-1969 Rev. 4-2003, Recommended International Code of Practice – General Principles of Food Hygiene recommended by the Codex Alimentarius Commission

International Commission for Uniform Methods of Sugar Analysis (ICUMSA) Methods Book 2005 and 2007

RA 7394 “The Consumer Act of the Philippines”

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