CHEMICALS HALAL CERTIFICATION SHEET

1	DOCUMENT AND PRODUCT DESCRIPTION BASED ON DOCUMENTATION		
	1.1	Document Number and Name based on certification (Standard/Criteria etc.)	π LAW OF REPUBLIC OF INDONESIANUMBER 33 YEAR 2014 π REDULA¢IONS OF ¢ I E I ALAL PRODUC¢ ASSURANCEORDANI½IND ADENCY ◊BP‴P I ◊ NUMBER 3 OF 2023 ON DUIDELINES FOR ACCREDI¢A¢ION ANDκOR ASSESSMEN¢ OF CONFORMI¢Y OF FOREIDN I ALAL CER¢IFICA¢ION BODY π ¢ I E DECREE OF ¢ I E MINIS¢ER OF RELIDIOUS AFFAIRS OF ¢ I E REPUBLIC OF INDONESIA NUMBER τ4y YEAR 2021 - SNI 99002:201c, SNI 99003:2018
	1.2	Product name/Class/Type/Type/ Type	*E. Chemicals* **Product group:** 1. Group of processing aid Details of Product Type Classification Code 1.1 Bleaching, washing, and/or exfoliating agents 1.2 Purifying, filter, adsorbent, and/or color remover agents Albumin Dimethyladalkyl-ammonium chloride Tannin extract powder Fuller's earth Potassium caseinate Calcium oxide Casein Caseinate Chitin Chitosan Polypropylene Potassium tartrate 1.3 Enzymes Rennet Glucose oxidase Hexose oxidase Catalase Glycerophospholipid cholesterol acyltransferase Transglutaminase Cyclodextrin glucotransferase 1,4 -Alpha-glucan 6- Alpha-glucosyltransferase

			Amylomaltase Carboxylesterase Triacylglycerol lipase Phospholipase A2 Lysophospholipase Pectinesterase Tannase Acylglycerol lipase Phospholipase Al 3-Phytase 4-Phytase Phospholipase C Ribonuclease P Alpha-amylase Alpha-amylase and glucoamylase Beta-amylase Glucan 1,4-Alpha-glucosidase Cellulase Endo-1,3(4)-Beta-glucanase Inulinase Endo-1,4-Beta-xylanase Dextranase Polygalacturonase Alpha-Glucosidase Beta-Glucosidase Alpha-galactosidase Beta-galactosidase Beta-Fructofuranosidase Hemicellulase endo-1,3-Beta- xylanase) Pullulanase Alpha-arabinofuranosidase Glucan 1,3-Beta glucosidase Glucan 1,4-Alpha- maltotetraohydrolase Isoamylase Mannan endo-1,4-Beta-mannosidase Endo-arabinase Glucan 1,4-Alphamalohydrolase Aminopeptidase

			Chymotrypsin Trypsin Serine Proteinase Prolyl oligopeptidase Subtilisin Papain Ficain Actinidin Stem Bromelain Fruit Bromelain Pepsin Chymosin Carboxyl proteinase Aspergillopepsin Mucorpepsin Bacillolysin Asparaginase Urease Alpha-Acetolactate decarboxylase Pectin lyase Xylose isomerase 1.4 Flocculating agent Nagari Cioko 1.5 Catalyst 1.6 Microbe nutrition Adenine mina Adonitol Arginine Aspartic acid Biotin Calcium pantotheanate Cysteine monohydrochloride

			Cystine Dextran Glutamic acid Glycine Guanine Histidine Hydroxyethyl starch Inosine Inositol Niacin Pantothenic acid Peptone Pyridoxine hydrochloride Riboflavin Thiamin Threonine Uracil Xanthine 1.7 Control of the microorganisms growth 1.8 Enzyme tracers Diethylaminoethyl-cellulose Polyethyleneimine Diatomaceous earth 1.9 Ion exchange resins Counter ions for resins Copolymer of methacrylic acid-divinylbenzene Copolymer of methyl acrylate and divinylbenzene that are completely/fully hydrolyzed Polymers of fully hydrolyzed methyl acrylatedivinylbenzene and acrylonitrile Reaction of resin of formaldehyde, acetone, and tetraethylene pentamine Polymer methyl acrylate- divinylbenzenediethylene glycol divinyl ether containingnot less than 7% (w/w) divinylbenzene andnot more than 2.3% (w/w) diethyleneglycol divinyl ether that is amaminolyzedwith dimethylaminopropyl-amine andquantified with methyl chloride Sulfonated tetrapolymers of styrene, divinylbenzene, acrylonitrile and methyl acrylate (derived from monomer mixtures containing not more than 2% (w/w) acrylonitrile and methyl acrylate)

			1.10 Other processing aid group that is used in production of food, beverages, medicines, or cosmetics **Product group:** 2. Other chemicals 2.1 Exfoliating/abrasive 2.2 Charcoal/active carbon 2.3 Alumina attapulgi 2.4 Fragrance 2.5 Flavor 2.6 Surface active agent 2.7 Chelating Agent 2.8 Cloudifier 2.9 Buffering 2.10 Medium for fermentation 2.11 Hexamediamin 2.12 Caffeine
	1.3	Legal Terms (if any)	"Regulation on Detergents" dated 27.01.2018 and numbered 30314 *"Biocidal Products Regulation" dated 31 December 2009 and numbered 27449* *Note: In inspections carried out abroad, the legal conditions of the relevant country are taken as basis.*

2	PRODUCTION FACILITY AND PROCESS REQUIREMENTS		
	2.1	Conditions for the Production Facility	It must meet the minimum requirements in the TS 10621 Synthetic Detergent Factories-General Rules standard. There must be a laboratory established independently of other departments in the organization that is capable of performing the necessary analyzes appropriately. Products within the scope of halal certification; During transportation, storage and preservation, mixing with products that are not within the scope of Halal certification should be prevented. Inputs, semi-finished products and finished products that are not suitable for the production of halal cleaning products; must be clearly identified and separated to prevent accidental use.
	2.2	Conditions Regarding the Production Process/Equipment	It must meet the minimum requirements in the TS 10621 Synthetic Detergent Factories-General Rules standard. Tools and equipment on the production line should be clean and, whenever possible, used only for the production of halal cleaning products. If the tools and equipment on the production line are used in the production of products that are not within the scope of halal certification, they must be cleaned with appropriate cleaning tools to meet halal conditions in order to prevent cross-contamination, cleaning information must be recorded and the records must be kept and submitted if requested by the certification body. There should be cleaning instructions for all areas and spaces in the workplace, all machines, devices used in manufacturing, and systems and vehicles used for internal and external transportation of products, and it should be recorded that the cleaning practices are carried out as specified in the instructions. Inspections and tests must be carried out in accordance with the quality plan. Inspections and tests that cannot be performed in the company laboratory must be carried out in an external laboratory in accordance with the quality plan and their records must be kept. Note: Quality Plan; It is a plan that includes information about the inspections and tests to be carried out for input, production and finished product, control method, acceptance criteria, control frequency, place/responsible person to be controlled, etc.

3	DOCUMENTATION TERMS		
	3.1	Minimum documentation to be implemented by the organization Conditions	1- Control of Documents and Records (Nonconformance Category: Minor) 2- Definitions of Responsibility and Authority (Nonconformance Category: Minor) 3- Input, Product Quality Control (Inputs that affect the product) **(Nonconformance Category: Minor)** 4- Product Quality Control (During Production and/or Final Product) (Nonconformity Category: Minor) 5- Production Process Control (Work Instructions, Maintenance Plan, etc.) (Nonconformance Category: Minor) 5- Nonconforming Product Control (Nonconformance Category: Minor) 6- Customer Complaints Management (Nonconformance Category: Minor) 7- Control of Measuring and Monitoring Devices (Nonconformance Category: Critical/Important)

			8- Correction and Corrective Actions (Nonconformance Category: Minor) 9- Production Flow Charts (specifying Halal Control Points) (Nonconformance Category: Minor)
	3.2	Additional Terms (if any)	"Regulation on Detergents" dated 27.01.2018 and numbered 30314 *"Biocidal Products Regulation" dated 31 December 2009 and numbered 27449* *It must comply with the requirements of TS EN ISO 9001 Quality Management Systems - Conditions and TS EN ISO 14001 / ISO 14001 Environmental Management Systems - Conditions and User Guide.**(Nonconformance Category: Critical/Significant)*** *In the Halal Certification Program Conformity Assessment activities, first of all, compliance with legal conditions (defining the product in terms of physical, chemical and microbiological parameters) will be sought. If there are no legal requirements regarding the product under review, the conditions specified in the certification sheet prepared in accordance with the relevant Turkish Standard/Certification criteria are required.**(Nonconformance Category: Critical/Significant)*** Production flow charts should be created, halal control points should be determined and monitoring records should be kept. A method should be established for selecting, approving and monitoring suppliers and a list of current suppliers should be recorded. (Nonconformance Category: Minor)

4	QUALITY CONTROL REQUIREMENTS		
	4.1	Personnel Conditions and Qualifications	At least 1 technical personnel (Engineer, Chemist, Biologist, etc.) should be employed as the manager responsible for production and at least 1 technical personnel (Chemical Engineer, Chemist, Biologist, etc.) should be employed as the manager responsible for quality control within the company. There must be a sufficient number of personnel according to the service capacity, they must wear clothes appropriate to the work they do, and they must use personal protective equipment. The adequacy of the measures to be taken by the organization in accordance with the provisions of the legislation in force regarding personnel health checks should be evaluated.

			Before personnel are hired, they must be examined by an official health institution; They must have a report stating that they do not carry a contagious disease, those who are sick or carriers should not be employed, and these documents should be kept in their personal files. Health checks of all production-related personnel must be carried out in the periods specified in the relevant legislation and records must be kept.
	4.2	Inspections and Tests that must be performed on each product (100%) at the Production Site	-
	4.3	Inspections and Experiments that must be carried out with sampling (Mandatory at the Production Site)	*The organization must carry out final product inspection and tests within the framework of a quality control plan to ensure compliance with standard conditions. This quality control plan may include all or some of the tests required by the standard.*
		Inspections and Experiments that need to be done with sampling (Those that can be used in external laboratories)	*In order to ensure compliance with standard conditions, the organization must have inspections and tests that cannot be performed at the production site performed in traceable external laboratories within the framework of a quality control plan or obtain a report from its supplier.*
	4.4	Type Tests and Validity Periods (if any)	*It is not implemented in the Halal Certification Program.*
	4.5	Additional Terms (if any)	1. For inspections and tests that the organization cannot perform in its own quality control laboratory but are covered by other legal regulations of the country; a. Test reports made in traceable laboratories should be requested from suppliers for input and auxiliary materials, including packaging materials. b. Tests regarding the suitability of final products must be carried out in a Public Institution / University Laboratory for inspections / tests that do not have an Accredited / Test Service Laboratory Approval Certificate. 2. MSDS information for raw materials should be requested from suppliers. *3. In case of a "Product Claim" regarding the company's product, the suitability of the test results must be evaluated.* (Nonconformance Category: Critical/Significant)

5	SAMPLE PROCEDURES		
	5.1	Experiment Laboratories to which the Sample will be Sent	It is stated in ANNEX 1 Table. Note: When it comes to receiving services from test laboratories not specified in this certification sheet; The process is carried out according to PR-08 Laboratory Selection and Approval Procedure.
	5.2	Sample Determination (Selection) Method (According to Scope)	It is stated in ANNEX 1 Table.

	5.3	Sampling Method and Sample Quantity	It is stated in ANNEX 1 Table. In cases where the sample cannot be taken with its original packaging, this should be stated in the FR-16 Sample Collection Report and the product should be described in a descriptive way and visually supported when necessary.
	5.4	Conditions for Delivery of the Sample to the Laboratory (if necessary)	Samples should be delivered to the laboratory specified in Annex 2, packaged in a way that prevents them from being affected by external impacts, is not directly exposed to sunlight, and provides controlled temperature conditions. Taking into account the place where the sample was taken and the service address of the inspection and testing laboratory; Service can be received from inspection and test laboratories not specified in the leaflet, provided that these laboratories are accredited in the relevant inspection and tests.
	5.5	Critical Inspections/Tests That Directly Affect Product Safety/Performance	It is stated in ANNEX 1 Table.
	5.6	Special Situations (if any)	1) During the sampling process from the production site, a witness sample of the same amount as the test sample should be taken and delivered to the organization official (if the customer requests). 2) If the sample cannot be taken in its original packaging; The compliance of the product with the market placement clause of the relevant standard or legislation must be evaluated by the inspection team.

6	AUDIT PROGRAM			
	Control Type	Duration (Month or Year)	Production Site Inspection (MEMBER)	From Production Site Sampling (MSN)
	Certification	-	X	X
	1. Surveillance	1 year	X	X
	2. Surveillance	1 year	X	
	Document Renewal	1 year	X	X
	Unannounced			
	Special Case (if any):			
	Note 1: If the organization has certificates from more than one brand within the same product group, an examination can be carried out by taking a sample from a brand. In this case, the inspection and test results of the sampled brand are considered valid for the organization's other brands. **Note 2:**Note 1: While determining the sample, samples can be taken from different products of different brands. **Note 3:**Note 1 conditions do not apply to products for which samples cannot be taken because they are not in production or in stock at the time of examination. **Note 4:**If the organization is a contract manufacturer and certified for the product(s) within the same product group; The inspection and test results of the sampled brand can also be considered valid for the product(s) of the contract manufacturer organization. **Note 5:**Sampling procedures are planned to take samples from all products within the scope of the document within the 3-year certificate validity period. A single sampling process is applied for products with the same production processes.			

7	EXPERIMENT PLAN	
	Control Type	**Inspections and Tests to be Performed**
	Certification	All inspections and tests specified in ANNEX-1 table
	1. Surveillance	All examinations and tests other than Anti-Microbial Effect and/or Microbiological Analyzes specified in ANNEX-1 table
	2. Surveillance	Biodegradability specified in ANNEX-1 table,*Detergent Activity, Disinfectant Activity*
	Document Renewal	All inspections and tests regarding the products specified in ANNEX-1 table
	Special Case (if any):*In the Halal Certification Program Conformity Assessment activities, first of all, compliance with legal conditions (defining the product in terms of physical, chemical and microbiological parameters) will be sought. If there are no legal requirements regarding the product under review, the conditions specified in the relevant certification sheet are required. For this purpose, reports of inspections and tests carried out by the Certificate Holding organization are evaluated. The tests to be carried out within the framework of the relevant legislation are checked for compliance with the organization's quality plans.* **Note:**All examinations and tests other than Anti-Microbial Effect (As long as the formulation does not change, reports can be accepted for Anti-Microbial Effect tests for up to 10 (ten) years.	

8	SCOPE OF CERTIFICATION
	Example: Example 1- In the Cleaning Products Product Group; - Washing powder, - Household Type, Powder, Automatic Machine/Machine Cleaning Agent, Boron Based (General, Colored, Whites, etc.) - Industrial Type, Liquid, Automatic Machinery Cleaning Agent, Boron Based (General, Colored, Whites, etc.) *Example 2- In the Cleaning Products Product Group;* - Auxiliary Cleaning Products, - Dishwasher Rinse Aid *Example 3- In the Disinfectants Product Group;* *-Hand Sanitizers,* *-Antibacterial Hand Washing Product* *-Alcohol Based Hand Sanitizer* *Example 4- In the Disinfectants Product Group;* *-Surface (Floor) Disinfectants* *-Surface Disinfectant*

APPENDIX 1 Table:

The sample is taken from the batch.

The provisions of PR-09 Sampling Inspection and Test Procedure are applied in determining the products to be sampled.

TABLE: INSPECTIONS AND TESTS TO BE CARRIED OUT						
Name of the product	Relevant Legislation / Standard / Criterion	Experiment Name	Sample Determination Method	Sample Quantity	Experiment Laboratory	Product Safety/ Critical inspections/tests that directly affect performance
Boron Based Cleaning Agent (Used for laundry, dishwashing and surface cleaning purposes)	TSE K 235	-Biodegradability, %, at least (anionic active substance) -Boron Amount % (m/m), % B2O3, at least -pH (in 1% (m/v) solution) -Phosphate Amount % (m/m), % P2O5, maximum	PR-09 Sampling Inspection and Test Procedure TS 518	At least 3 pieces *1 kg in original packagingsample		✓✓ ✓✓ ✓ ✓
	Regulation on Detergents	-Phosphorus Content	PR-09 Sampling Inspection and Test Procedure			✓✓
	TSE K 235+ Regulation on Detergents	-Soap Content % (m/m), -Biodegradability, %, at least (nonionic active ingredient)	PR-09 Sampling Inspection and Test Procedure TS 518	At least 2 samples *1 kg in original packaging		✓ ✓✓
	TS EN 1276	-Anti-Microbial Effect	PR-09 Sampling Inspection and Test Procedure	At least 1 *1 kg sample in its original packaging		✓✓
Disinfectantsb	Biocidal Products Regulation	-Biodegradability (If the active substance is nonionic) -Disinfectant Effectiveness (Bactericidal, Sporicidal and Fungicidal Effect)	PR-09 Sampling Inspection and Test Procedure	At least 2 *1 L samples in original packaging	Synthesis Quality Control Lab. Mud	✓✓
Detergentsb	Relevant Standards	Biodegradability (if the active substance is anionic)	PR-09 Sampling Inspection and Test Procedure	At least 2 *1 L samples in original packaging		✓✓
		Detergent Activity				✓✓
Colloidal Silver Based Disinfectant	TSE K 142	Silver Concentration Amount (Manufacturer's Declaration is Verified)	PR-09 Sampling Inspection and Test Procedure	At least 2 *1 L samples in original packaging		✓✓
		Disinfectant Effectiveness (Bactericidal, Sporicidal and Fungicidal Effect)		At least 2 *1 L samples in original packaging		✓✓
General	Relevant Standards	Microbiological Analyzes	PR-09 Sampling Inspection and Test Procedure	At least 2 samples in original packaging		✓✓

Explanation:✓Minor non-compliance that does not affect halal production conditions (Minor)
✓✓Critical/important nonconformity affecting halal production conditions (Critical/Important)
b Tests specified in the relevant regulations and standards of the product groups are required.

Notes:

1. Packaging and Marking control must be carried out in accordance with the relevant legislation and article 6 of the TSE K 550 / September 2017 criterion. Findings are recorded in the LS-23 Halal Cleaning Products and Disinfectants Inspection Question List.
2. In assessing the compliance of the packaging materials used in production with the TS OIC/SMIIC 1 standard, the inspections and tests specified in the HBF-036 Food Contact Substances and Materials Certification Sheet are taken as basis.

In order to detect non-halal content in the product, the inspection team performs genetically modified organism (GMO) detection analyzes in the product or input, depending on the product feature and the raw material used, in accordance with the provisions of the Regulation on Genetically Modified Organisms and Their Products, in accordance with the provisions of the Turkish Food Codex Maximum Residue Limits of Pesticides Regulation. Appropriately, Pesticide Analysis and DNA analysis can be performed on products with animal-derived inputs.