


## SCOPE OF ACCREDITATION FOR TESTING LABORATORY No. AB 079

issued by  
**POLSKIE CENTRUM AKREDYTACJI**  
01-382 Warszawa, ul. Szczotkarska 42

Issue 65 of 04.10.2024

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 <b>AB 079</b>	Name and address  <b>J.S. HAMILTON POLAND Sp. z o.o.</b> <b>TESTING LABORATORY</b> <b>ul. Chwaszczyńska 180</b> <b>81-571 Gdynia</b>
<b>Identification code <sup>1)</sup></b>	<b>Field of testing and item:</b>
<ul style="list-style-type: none"> <li>- B/1, B/4, B/17, B/22, B/42, B/55, B/57</li> <li>- C/1/P, C/28/P, C/29/P, C/30/P, C/31/P, C/32/P</li> <li>- C/4, C/6, C/10, C/17, C/18, C/21, C/22, C/23, C/25, C/42, C/43, C/44, C/45, C/47, C/48, C/49, C/53, C/54, C/55</li> <li>- K/9/P, K/28/P, K/29/P, K/30/P, K/32/P</li> </ul>	<ul style="list-style-type: none"> <li>- Biological and biochemical tests of agricultural products – including animal feedstuffs, chemical products, other products, food, cosmetics, fertilizers, animal feedstuffs, objects from food production area</li> <li>- Chemical tests and sampling of feedstuffs, water, drinking water, sewage, soil, sediments, waste</li> <li>- Chemical tests of agricultural products – chemical products, electrical, products and equipment, fuels (gas, liquid, solid), other products, paper, cardboard, plastic and rubber products, foods, textiles, toys, cosmetics, fertilizers, plant growth substances, paints and lacquers, crude oil, other petroleum products, packaging materials, electrical, telecommunication and electronic products and equipment, electronic equipment, animal feedstuffs</li> <li>- Microbiological tests and sampling of air, water, drinking water, sewage, sediments</li> </ul>


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<sup>1)</sup> The identification code according to the Annex to document DAB-07, available at PCA website [www.pca.gov.pl](http://www.pca.gov.pl)

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<b>Identification code <sup>1)</sup></b>	<b>Field of testing and item:</b>
<ul style="list-style-type: none"> <li>- K/1, K/3, K/4, K/9, K/10, K/12, K/17, K/18, K/21, K/22, K/27, K/42, K/49, K/55, K/57</li> <li>- N/28/P, N/29P, N/30/P, N/31/P, N/32/P</li> <li>- N/1, N/4; N/10, N/18, N/21, N/22, N/23, N/25, N/42, N/47, N/48, N/49, N/55</li> <li>- Q/28/P, Q/29/P</li> <li>- Q/1, Q/4, Q/6, Q/10, Q/12, Q/17, Q/18, Q/21, Q/22, Q/42, Q/49</li> </ul>	<ul style="list-style-type: none"> <li>- Microbiological tests of agricultural products, biological materials for testing, chemical products, liquid fuels, glass and ceramics, other products, paper, cardboard, plastic and rubber products, food, wood, cosmetics, packaging materials, animal feedstuffs, objects from food production area</li> <li>- Tests of physical properties and sampling of water, drinking water, sewage, soil, sediments, waste</li> <li>- Tests of physical properties of agricultural products, chemical products, fuels, paper, cardboard, plastic and rubber products, food, textiles, toys, cosmetics, crude oil, other petroleum products, packaging materials, animal feedstuffs</li> <li>- Sensory tests and sampling of water, drinking water</li> <li>- Sensory tests of agricultural products, chemical products, electrical products, fuels, glass and ceramics, other products, paper, cardboard, plastic and rubber products, food, cosmetics, packaging materials</li> </ul>

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<b>Fuel Laboratory Gdynia</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Liquid fuels: diesel oil, light heating fuel</b>	Cetane index (calculated)	PN-EN ISO 4264:2018-08
<b>Liquid fuels: diesel oil, unleaded petrol, light heating fuel, marine fuel</b>	Copper strip test Range: class (1 – 4) Visual method	PN-EN ISO 2160:2004
<b>Liquid fuels: diesel oil, light heating fuel, heavy heating fuel, marine fuel</b>	Kinematic viscosity at temperature 40°C, 50 °C and 100 °C Capillary method Range: (2,000 – 50,00) mm <sup>2</sup> /s Dynamic viscosity (calculated)	PN-EN ISO 3104:2024-01 Procedure A
<b>Liquid fuels: diesel oil, light heating fuel, marine fuel</b>	Water content Range: (0,003 – 0,100) % (m/m) Coulometric titration method	PN-EN ISO 12937:2005
<b>Liquid fuels: diesel oil, light heating fuel, marine fuel</b>	Contamination content Range: (6 – 30) mg/kg Gravimetric method	PN-EN 12662:2014-05
<b>Liquid fuels: diesel oil, light heating fuel, heavy heating fuel, marine fuel</b>	Pour point Range: (-33 – +30) °C Visual method	PN-EN ISO 3016:2019-06
	Ash content Range: (0,001 – 0,180) % (m/m) Gravimetric method	PN-EN ISO 6245:2008
<b>Liquid fuels: light heating fuel, heavy heating fuel, marine fuel</b>	Sulphur content Range: (0,03 – 3,0) % (m/m) Energy-dispersive X ray fluorescence spectrometry method	PN-EN ISO 8754:2007+Ap1:2014-02
<b>Liquid fuels: diesel oil, light heating fuel, marine fuel</b>	Cloud point Range: (-40 – 0) °C Visual method	PN-EN ISO 3015:2019-06
<b>Liquid fuels: unleaded petrol</b>	Gum content Range: Solvent-washed gum (1,0 – 10,0) mg/100 ml Unwashed gum (1,0 – 100,0) mg/100 ml Gravimetric method	PN-EN ISO 6246:2017-05+A1:2020-03 except p. 8 and 9
	Oxidation stability Range: (200– 600) min Induction period method	PN-EN ISO 7536:2011
	Air saturated vapour pressure (ASVP) Range: (50,0 – 90,0) kPa Mini Reid method	PN-EN 13016-1:2018-05
	Dry vapour pressure equivalent (DVPE) (calculated)	
	Benzene content Range: (0,1 – 2,0) % (v/v) IR spectrometry method	PN-EN 238:2000 PN-EN 238:2000/A1:2008

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Liquid fuels: unleaded petrol</b>	Hydrocarbon types content Range: Aromatic hydrocarbons (20,0 – 40,0) % (v/v) Olefins hydrocarbons (1,0 – 20,0) % (v/v) Saturated hydrocarbons (45,0 – 68,0) % (v/v) Fluorescent indicator adsorption method (FIA method)	PN-EN 15553:2022-05
<b>Liquid fuels: diesel oil</b>	Fatty acid methyl esters content (FAME) Range: (0,05 – 22,7) % (v/v) IR spectrometry method	PN-EN 14078:2014-06
<b>Liquid fuels: diesel oil, unleaded petrol, light heating fuel, marine fuel</b>	Sulphur content Range: (3,0 – 60,0) mg/kg Ultraviolet fluorescence method	PN-EN ISO 20846:2020-03
<b>Liquid fuels: diesel oil, light heating fuel, heavy heating fuel, marine fuel</b>	Flash point Range: (40,0 – 140,0) °C Pensky-Martens closed cup method	PN-EN ISO 2719:2016-08 +A1:2021-06
<b>Liquid fuels: diesel oil, light heating fuels</b>	Cold filter plugging point (CFPP) Range: (-41 – 0) °C Optical method	PN-EN 116:2015-09
<b>Liquid fuels: diesel oils, fatty acid methyl esters (FAME)</b>	Oxidation stability Range: (1,0 – 40,0) h Conductometric method	PN-EN 15751:2014-05
<b>Liquid fuels: diesel oil, light heating fuel, marine fuel</b>	Carbon residue Range: (0,01 – 15,00) % (m/m) Gravimetric method	PN-EN ISO 10370:2014-12
	Oxidation stability Range: (2 – 25) g/m <sup>3</sup> Gravimetric method	PN-EN ISO 12205:2011
<b>Liquid fuels: diesel oil, light heating fuel, heavy heating fuel</b>	Gross calorific value Range: (30000 – 45000) kJ/kg Calorimetric method Net calorific value (calculated)	PN-C-04062:2018-05
<b>Liquid fuels: heavy heating fuel</b>	Water content Range: (0,05 – 25) % (m/m) Distillation method	PN-EN ISO 9029:2005
<b>Liquid fuels: diesel oil, unleaded petrol, light heating fuel, marine fuel Chemical products: solvents</b>	Distillation characteristics Range: (10,0 – 400,0) °C Distillation method	PN-EN ISO 3405:2019-05
	Density Range: (600,0 – 1,100) kg/m <sup>3</sup> Oscillating method	PN-EN ISO 12185:2002
<b>Liquid fuels: heavy heating fuel</b>	Density Range: (890,0 – 990) kg/m <sup>3</sup> Oscillating method	PN-EN ISO 12185:2002

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Gaseous fuels: Liquefied hydrocarbon gases, LPG</b>	Detection of hydrogen sulphide Visual method	PN-EN ISO 8819:2000
	Sulphur content Range: (1,0 – 196) mg/kg Ultraviolet fluorescence method	ASTM D 6667-21
	Copper strip test Range: class (1 – 4) Visual method	PN-EN ISO 6251:2001
	Detection of water Visual method	PN-EN 15469:2009
	Net calorific value (calculated)	PN-C-96008:1998
	Hydrocarbons composition Range: (0,1 – 100) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Total dienes content Range: (0,1 – 1,0) % (mol/mol) (0,1 – 1,0) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Motor octane number MON (calculated)	PN-EN 589+A1:2022-07 app. B
	Density at temperature 15 °C (calculated)	PN-EN ISO 8973:2000+A1:2020-10
	Density at temperature 15,6 °C (calculated)	PN-C-96008:1998
	Vapour pressure at temperature -15 °C (calculated)	PN-C-96008:1998
	Vapour pressure, estimated in temperatures: -10 °C, -5 °C, 0 °C, 10 °C, 37,8 °C, 40 °C, 50 °C, 70 °C (calculated)	PN-EN ISO 8973:2000+A1:2020-10 PN-EN 589+A1:2022-07 app. C
	Temperature, at which it is estimated the relative vapour pressure is not less than 150 kPa (calculated)	PN-EN ISO 8973:2000+A1:2020-10 PN-EN 589+A1:2022-07
	Odour Organoleptic method	PN-EN 589+A1:2022-07 app. A
	Mineral oil residue Range: (0,0002 – 0,0100) % (m/m) Gravimetric method	PN-C-96008:1998
	Dissolved residues Range: (30 – 100) mg/kg Gravimetric method	PN-EN 15471:2017-08
Hydrocarbons composition Range: (0,10 – 100,0) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02	
1,3 butadiene content Range: (0,01 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02	

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Gaseous fuels: Liquefied hydrocarbon gases, LPG</b>	Total dienes content Range: (0,10 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
<b>Liquid fuels: fatty acids methyl esters (FAME)</b>	Density Range: (860,0 – 900,0) kg/m <sup>3</sup> Oscillating method	PN-EN ISO 12185:2002
	Kinematic viscosity at temperature 40 °C Range: (3,500 – 5,000) mm <sup>2</sup> /s Capillary method	PN-EN ISO 3104:2024-01 Procedure A
	Flash point Range: (90,0–180,0) °C Pensky-Martens closed cup method	PN-EN ISO 2719:2016-08 +A1:2021-06
	Copper strip test Range: corrosion degree 1 – 4 Visual method	PN-EN ISO 2160:2004
	Water content Range: (0,010 – 0,100) % (m/m) Coulometric titration method	PN-EN 12937:2005
<b>Liquid fuels: fatty acids methyl esters (FAME)</b>	Contamination content Range: (6 – 30) mg/kg Gravimetric method	PN-EN 12662:2014-05
	Sulphur content Range: (3,0 – 15,0) mg/kg Ultraviolet fluorescence method	PN-EN ISO 20846:2020-03
<b>Animal and vegetable fats and oils</b>	Water content Range: (0,05 – 2,0) % (m/m) Potentiometric titration method	PN-EN ISO 8534:2017-03

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Liquid fuels: diesel oil</b>	Aromatic hydrocarbons groups content Range: -mono-aromatic hydrocarbons (MAH) (6-30)% (m/m) -di-aromatic hydrocarbons (DAH) (1-10)% (m/m) -tri+-aromatic hydrocarbons (T+AH) (0-2)% (m/m) -polycyclic aromatic hydrocarbons (POLY-AH) (1-12)% (m/m)  High performance liquid chromatography method with refractometric detection (HPLC-RID)  Total content of aromatic hydrocarbons (calculated)	PN-EN 12916+A1:2023-01 except method B
<b>Petroleum</b>	Density at temperature 15 °C i 20 °C Range: (0,7500 – 0,9000) g/cm <sup>3</sup> (750,0 – 900,0) kg/m <sup>3</sup> Oscillating method	ASTM D 5002-22
	Sulphur content Range: (0,100– 2,50) % (m/m) Energy-dispersive X ray fluorescence spectrometry method	ASTM D 4294-21
	Sediments content Range: (0,01– 0,05) % (m/m) Gravimetric method	ASTM D 473-22
	Water content Range: (0,025 – 1,000) % (v/v) Distillation method	ASTM D 4006-22

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<b>Fuel Laboratory Malaszewicze</b> Kolejarzy 6, 21-540 Malaszewicze		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Liquid fuels: diesel oil</b>	Sulphur content Range: (3,0 – 50,0) mg/kg Ultraviolet fluorescence method	PN-EN ISO 20846:2020-03
<b>Liquid fuels: diesel oil</b>	Density at 15 °C Range: (820,0 – 840,0) kg/m <sup>3</sup> Areometric method	PN-EN ISO 3675:2004
<b>Other petroleum products: petroleum paraffins, petroleum waxes, petrolatum</b>	Kinematic viscosity at 100 °C Range: (3,000 – 15,00) mm <sup>2</sup> /s Capillary method	PN-EN ISO 3104:2024-01, Procedure A
	Oil content Range: (0,4 – 30) % (m/m) Gravimetric method	ASTM D 721-17
	Oil content Range: (0,4 – 15) % (m/m) Gravimetric method	ISO 2908:1974
	Colour Range: 0,5 – 5 Visual method	ASTM D 1500-12 (2017)
	Congealing point Range: (30 – 70) °C Visual method	ASTM D 938-12 (2017)
<b>Liquid fuels: diesel oil</b>	Distillation characteristics at atmospheric pressure Range: (150 – 400) °C Distillation method	PN-EN ISO 3405:2019-05
<b>Gaseous fuels: Liquefied hydrocarbon gases, LPG</b>	Detection of hydrogen sulphide Visual method	PN-EN ISO 8819:2000
	Sulphur content Range: (1,0 – 100) mg/kg Ultraviolet fluorescence method	ASTM D 6667-21
	Copper strip test Range: class (1 – 4) Visual method	PN-EN ISO 6251:2001
	Detection of water Visual method	PN-EN 15469:2009
	Dissolved residue Range: (20 – 100) mg/kg Gravimetric method	PN-EN 15471:2017-08
	Hydrocarbons composition Range: (0,1 – 100,0) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Total dienes content (as 1,3-butadiene) Range: (0,1 – 1,0) % (mol/mol) (0,1 – 1,0) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Hydrocarbons composition Range: (0,1 – 100,0) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	1,3 butadiene content Range: (0,01 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02



Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Gaseous fuels: Liquefied hydrocarbon gases, LPG</b>	Total dienes content Range: (0,10 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	Motor octane number MON (calculated)	PN-EN 589+A1:2022-07 app. B
	Density at temperature 15 °C (calculated)	PN-EN ISO 8973:2000+A1:2020-10
	Density at temperature 15,6 °C (calculated)	PN-C-96008:1998
	Vapour pressure at temperature -15 °C (calculated)	PN-C-96008:1998
	Temperature, at which it is estimated the relative vapour pressure is not less than 150 kPa (calculated)	PN-EN ISO 8973:2000+A1:2020-10 PN-EN 589+A1:2022-07
	Vapour pressure, estimated in temperatures: -10 °C, -5 °C, 0 °C, 10 °C, 37,8 °C, 40 °C, 50 °C, 70 °C (calculated)	PN-EN ISO 8973:2000+A1:2020-10 PN-EN 589+A1:2022-07 app. C
	Net calorific value (calculated)	PN-C-96008:1998
	Odour Organoleptic method	PN-EN 589+A1:2022-07 app. A
	Mineral oil residue Range: (0,0002 – 0,0100) % (m/m) Gravimetric method	PN-C-96008:1998
<b>Liquid fuels: diesel oil</b>	Fatty acid methyl esters content (FAME) Range: (0,05 – 10,0) % (v/v) IR spectrometry method	PN-EN 14078:2014-06
	Flash point Range: (40,0 – 80,0) °C Pensky-Martens closed cup method	PN-EN ISO 2719:2016-08 +A1:2021-06
	Cold filter plugging point (CFPP) Range: (-35 – 0) °C Optical method	PN-EN 116:2015-09
	Cetane index (calculated)	PN-EN ISO 4264:2018-08
	Density at temperature 15 °C Range: (800,0 – 850,0) kg/m <sup>3</sup> Oscillating method	PN-EN ISO 12185:2002

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<b>Fuel Laboratory Tychy</b> Goździków 1, 43-100 Tychy		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Gaseous fuels: Liquefied hydrocarbon gases, LPG</b>	Detection of hydrogen sulphide Visual method	PN-EN ISO 8819:2000
	Sulphur content Range: (1,0 – 200) mg/kg Ultraviolet fluorescence method	ASTM D 6667-21
	Copper strip test Range: class (1 – 4) Visual method	PN-EN ISO 6251:2001
	Detection of water Visual method	PN-EN 15469:2009
	Hydrocarbons composition Range: (0,1 – 100) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Total dienes content (as 1,3-butadiene) Range: (0,1- 1,0) % (mol/mol) (0,1- 1,0) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Hydrocarbons composition Range: (0,1 – 100) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	1,3- butadiene content Range: (0,01 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	Total dienes content Range: (0,10 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	Motor octane number MON (calculated)	PN-EN 589+A1:2022-07 app. B
	Density at temperature 15 °C (calculated)	PN-EN ISO 8973:2000+A1:2020-10
	Density at temperature 15,6 °C (calculated)	PN-C-96008:1998
	Vapour pressure at temperatures: -15°C, 40 °C and 70 °C (calculated)	PN-C-96008:1998
	Vapour pressure, estimated in temperatures: -10 °C, -5 °C, 0 °C, 10 °C, 37,8 °C, 40 °C, 50 °C, 70 °C (calculated)	PN-EN ISO 8973:2000+A1:2020-10 PN-EN 589+A1:2022-07 app. C
	Temperature, at which it is estimated the relative vapour pressure is not less than 150 kPa (calculated)	PN-EN ISO 8973:2000+A1:2020-10 PN-EN 589+A1:2022-07
	Net calorific value (calculated)	PN-C-96008:1998
Odour Organoleptic method	PN-EN 589+A1:2022-07 app. A	

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Gaseous fuels: Liquefied hydrocarbon gases, LPG</b>	Dissolved residues Range: (30 – 100) mg/kg Gravimetric method	PN-EN 15471:2017-08
<b>Solid fuels: coal</b>	Volatile matters content Range: (1,50 – 44,00) % Gravimetric method	PN-G-04516:1998
	Total moisture content Range: (1,0– 25,0) % Gravimetric method	PN-ISO 589:2006 method B1
	CO <sub>2</sub> emission factor (calculated)	PB-258 ed. 2 of. 26.08.2024
	Oxidation factor (calculated - on basis of total carbon content in fuel and solid products of combustion)	PB-259 ed. 2 of. 26.08.2024
	Sintering ability Range : 0 – 80 Gravimetric method	PN-81/G-04518
	Fixed carbon factor (calculated)	PN-G-04516:1998
<b>Solid fuels: coke derived from coal</b>	Total moisture content Range: (1,0 – 60,0) % Gravimetric method	PN-ISO 579:2002
	Moisture content in test sample Range:(0,1 – 6,0) % (m/m) Gravimetric method	PN-ISO 687:2005
<b>Solid fuels: coal and coke</b>	Total moisture content Range: Hard coal (1,0 – 30,0) % Coke (0,1 – 10,0) % Gravimetric method	PN-80/G-04511 p. 2.3.2, p. 2.3.4
	Moisture content in test sample Range: (0,10 – 10,00) % Thermogravimetric method	PN-G-04560:1998
	Moisture content in test sample Range: (0,1 – 10,0) % Gravimetric method	PN-ISO 11722:2009
	Ash content Range: (0,10 – 55,00) % Thermogravimetric method	PN-G-04560:1998
	Ash content Range: (1,0 – 55,0) % Gravimetric method	PN-ISO 1171:2002
	Gross calorific value Range: (14000 – 35000) kJ/kg Calorimetric method Net calorific value (calculated)	PN-81/G-04513 PN-ISO 1928:2020-05
	Volatile matters content Range: Hard coal (2,0 – 40,0)% Coke (1,0 – 20,0) % Gravimetric method	ISO 562:2010
	Total sulphur content Range: (0,10 – 2,50) % (m/m) High-temperature combustion method with IR detection	PN-G-04584:2001 ASTM D 4239-18 <sup>e1</sup> (method A)

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Solid fuels: coal and coke</b>	Total sulphur content Range: (0,20 – 2,50) % (m/m) High-temperature combustion method with IR detection	ISO 19579:2006
	Total carbon content Range: (40,0 – 100,0) % High-temperature combustion method with IR detection	PN-G-04571:1998 PKN-ISO/TS 12902:2007
	Hydrogen content Range: (0,10 – 5,60) % High-temperature combustion method with IR detection	PN-G-04571:1998 PKN-ISO/TS 12902:2007
	Chlorine content Range:(0,03 – 0,50) % Titrimetric method	PN-ISO 587:2000 p. 7.2.1
<b>Waste <sup>o)</sup> group code: 10 01 01, 10 01 02, 10 01 03, 10 01 15, 10 01 17, 10 01 80</b>	Moisture content in test sample Range: (0,10 – 10,00) % Thermogravimetric method	PB-72 ed. 2 of 26.08.2024
	Ash content Range:(40,00 – 99,90) % (m/m) Thermogravimetric method	PB-347 ed. 2 of 26.08.2024
	Total carbon content Range: (0,3 – 40,0) % High-temperature combustion method with IR detection	PB-73 ed. 2 of 15.03.2024
	Total moisture content Range: (0,1 – 40,0) % Gravimetric method	PB-90 ed. 2 of 26.08.2024
<b>Solid fuels: solid biomass - solid biofuels</b>	Moisture content in test sample Range: (1,00 – 20,00) % Thermogravimetric method	PB-98 ed. III of 21.05.2013
<b>Solid fuels: solid biomass - solid biofuels</b>	Total moisture content Range: (3,0 – 85,0) % Gravimetric method	PN-EN ISO 18134-2:2017-03
	Hydrogen content Range: (3,0 – 8,0) % High-temperature combustion method with IR detection	PN-EN ISO 16948:2015-07
	Ash content Range: (0,1 – 45,0) % Gravimetric method	PN-EN ISO 18122:2023-05
	Sulphur content Range: (0,02 – 0,20) % High-temperature combustion method with IR detection	PN-EN ISO 16994:2016-10 p. 4.4
	Carbon content Range: (30,0 – 50,0) % High-temperature combustion method with IR detection	PN-EN ISO 16948:2015-07
	Gross calorific value Range: (5000 – 22000) kJ/kg Calorimetric method Net calorific value (calculated)	PN-EN ISO 18125:2017-07

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

<b>Microbiology Laboratory Gdynia</b> Chwaszczyńska 180, 81-571 Gdynia		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Meat Fish Eggs</b>	Detection of antibiotics residues Diffusion method	PB-216 ed. II of 23.10.2015 based on the manufacturer's instructions Premi Test
<b>Milk Milk powder Cream</b>	Detection of antibiotics and other inhibitors Diffusion method	PN-91/A-86033 Delvotest SP NT
<b>Fruit, vegetable and vegetable with meat products</b>	Shelf life of canned food Thermostatic test	PN-90/A-75052/03
<b>Meat and meat products</b>	Shelf life of canned food Thermostatic test	PN-A-82055-5:1994
<b>Fish and fishery products</b>	Shelf life of canned food Thermostatic test	PN-A-86732:1992
<b>Drinking water, raw water, spring water, mineral water, table water, ice</b>	Flavour Qualitative method	PB-201 ed. I of 01.02.2013
<b>Drinking water, raw water, spring water, mineral water, table water, industrial water, technological water</b>	Odour Qualitative method	
<b>Environmental samples from food and cosmetics production areas as well as food and cosmetics trade: - swabs from the surface limited with template - swabs from surface unlimited with template</b>	Enumeration of Legionella Membrane filtration method	PB-404 ed. I of 30.10.2019

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Flexible scope of accreditation <sup>1), 2), 3), 4), 5)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Food <sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from food and cosmetics production areas as well as food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template	Enumeration of microorganisms <sup>2)</sup> Colony count technique (spread plate method)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Food <sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from areas of cosmetics production:</b> - swabs from the surface limited with template - swabs from surface unlimited with template  <b>Drinking water, surface water, water, pool water</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Environmental samples from areas of food production and food trade <sup>1)</sup></b> <b>Paper, cardboard, paper and cardboard products</b> <b>Plastic products and rubber products</b> <b>Metal, glass and ceramics products</b> <b>Wood and wood products</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>5)</sup>
<b>Environmental samples from food and cosmetics production areas as well as food and cosmetics trade:</b> - contact plates (surfaces) - agar plates (air)	Enumeration of microorganisms <sup>2)</sup> Colony count technique	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Food <sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from food and cosmetics production areas as well as food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template	Detection of microorganisms <sup>2)</sup> The tube culturing method	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
	Detection of microorganisms <sup>2)</sup> The tube culturing method with biochemical confirmation	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Food</b> <sup>1)</sup> <b>Feed</b>  <b>Environmental samples from food and cosmetics production areas as well as food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>  <b>Drinking water, surface water, pool water</b>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>5)</sup>
<b>Food</b> <sup>1)</sup> <b>Environmental samples from areas of food production and food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and microscopic confirmation	Standardized methods <sup>5)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from food and cosmetics production areas as well as food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template	Most probable number of microorganisms <sup>2)</sup> Tube fermentation technique MPN	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Drinking water, surface water, pool water, sewage, water</b> <b>Diesel</b>	Detection and enumeration of microorganisms <sup>2)</sup> Membrane filtration method	Standardized methods <sup>5)</sup>

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Paper, cardboard, paper and cardboard products</b> <b>Plastic products and rubber products</b> <b>Metal, glass and ceramics products</b> <b>Wood and wood products</b>	Detection of microorganisms <sup>2)</sup> The tube culturing method with biochemical confirmation	Standardized methods <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>5)</sup>
<b>Microorganisms strains</b>	Taxonomic identification of microorganisms <sup>2)</sup> Biochemical, immunochemical, PCR, microscopic method	PB-251 <sup>3)</sup>
<b>Food</b> <sup>1)</sup>	Detection of specific DNA of Escherichia coli and detection of Shiga toxin-producing Escherichia coli (STEC) <sup>2)</sup> PCR method, Bax System	ISO/TS 13136 <sup>6)</sup> PB-402 <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from food and cosmetics production areas as well as food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template	Detection of specific DNA of microorganisms <sup>2)</sup> PCR method, Bax System	In-house test procedures <sup>4)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of research within the group of subjects
- 2) Adding the examined feature within the subject / group of subjects and methods (research technique)
- 3) Applying updated methods described in-house test procedures
- 4) Applying updated and implemented new methods described in-house test procedures
- 5) Applying updated and implemented new methods described in the standardized methods.
- 6) Applying updated methods described in the standardized methods.

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<b>Molecular Biology Laboratory Tychy</b> Goździków 1, 43-100 Tychy		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4)</sup>		
<b>Food</b> <sup>1)</sup> <b>Feed</b>  <b>Environmental samples from areas of food production and food trade</b>	Detection of a specific GMO sequence (screening) <sup>2)</sup> Real-time PCR method	PB-397 <sup>4)</sup>
	Detection of a specific genetic modification DNA <sup>2)</sup> Real-time PCR method	PB-391 <sup>4)</sup>
	Detection of a specific allergen DNA <sup>2)</sup> Real-time PCR method	PB-393 <sup>4)</sup> PB-399 <sup>4)</sup>
	Detection of a specific animal species DNA <sup>2)</sup> Real-time PCR method	PB-399 <sup>4)</sup>
	Quantitative determination of allergen <sup>2),3)</sup> Immunoenzymatic method - ELISA	PB-394 <sup>4)</sup>
<b>Fruits, vegetables and fruit and vegetable preserves</b> <b>Environmental samples from areas of food production and food trade</b>	Detection of viral genetic material <sup>2)</sup> Real-Time RT-PCR method	PB-202 <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>	Quantification of a specific genetic modification DNA <sup>2), 3)</sup> Real-time PCR method	PB-392 <sup>4)</sup>
	Quantification of a specific animal species DNA <sup>2), 3)</sup> Real-time PCR method	PB-399 <sup>4)</sup>
	Quantification of a specific allergen DNA <sup>2), 3)</sup> Real-time PCR method	

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of research within the group of subjects
- 2) Adding the examined feature within the subject / group of subjects and methods (research technique)
- 3) Change in the measuring range of the test method
- 4) Applying updated methods described in-house test procedures

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<b>Microbiology Laboratory Przeźmierowo</b> Rzemieślnicza 9, 62-081 Przeźmierowo		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Environmental samples from areas of cosmetics production and cosmetics trade:</b> - swab from the surface limited with template - swab from surface unlimited with template	Enumeration of microorganisms Colony count technique (pour plate method)	PN-EN ISO 4833-1:2013-12
	Enumeration of Enterobacteriaceae Colony count technique (pour plate method)	PN-EN ISO 21528-2:2017-08
<b>Environmental samples from areas of cosmetic production and cosmetic trade</b> - contact plates (surfaces)	Enumeration of microorganisms Colony count technique	PN-EN ISO 4833-2:2013-12
	Enumeration of Enterobacteriaceae Colony count technique	PN-EN ISO 21528-2:2017-08
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade:</b> - swab from the surface limited with template - swab from surface unlimited with template	Detection of DNA specific for tested microorganism <sup>2)</sup> PCR method, Bax System	In-house test procedures <sup>3)</sup>
	Enumeration of microorganisms <sup>2)</sup> Colony count technique (spread plate method)	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method test-tube	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method test-tube with biochemical confirmation	Standardized methods <sup>4)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and microscopic confirmation	Standardized methods <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup> <b>Drinking water, surface water, pool water, water</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>	Most probable number of microorganisms <sup>2)</sup> Tube fermentation technique MPN	Standardized methods <sup>4)</sup>

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Drinking water, surface water, pool water, water</b>	Detection and enumeration of microorganisms <sup>2)</sup> Membrane filtration method	Standardized methods <sup>4)</sup>
<b>Environmental samples from areas of food production and food trade:</b> <b>- contact plates (surfaces)</b> <b>- agar plates (air)</b>	Enumeration of microorganisms <sup>2)</sup> Plate method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed and pet food</b> <b>Environmental samples (food and feed production)</b> <sup>1)</sup>	Presence of specific DNA for tested microorganism <sup>2)</sup> MDS System, isoPCR method (isothermal polymerase chain reaction)	In-house test procedures <sup>3)</sup>

Within the scope of the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of research within a group of subjects
- 2) Adding the examined feature within the subject / groups of subjects and methods (research technique)
- 3) Applying updated and implemented new methods described in-house test procedures
- 4) Applying updated and implemented new methods described in the standardized methods

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<b>Microbiology Laboratory Tychy</b> Goździków 1, 43-100 Tychy		
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Detection of DNA specific for tested microorganism <sup>2)</sup> PCR method, Bax System	In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (spread plate method)	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>  <b>Drinking water, surface water, pool water</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Detection of microorganisms <sup>2)</sup> Culturing method test-tube	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganism <sup>2)</sup> Culturing method test-tube with biochemical confirmation	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and microscopic confirmation	Standardized methods <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>	Most probable number of microorganisms <sup>2)</sup> Tube fermentation technique MPN	Standardized methods <sup>4)</sup>
<b>Drinking water, surface water, pool water, water</b>	Detection and enumeration of microorganisms <sup>2)</sup> Membrane filtration method	Standardized methods <sup>4)</sup>

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Environmental samples from areas of food production and food trade:</b> - contact plates (surfaces) - agar plates (air)	Enumeration of microorganisms <sup>2)</sup> Colony count technique	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Paper, cardboard, paper and cardboard products</b> <b>Plastic and rubber products</b> <b>Metal, glass and ceramics products</b> <b>Wood and wood products,</b> - swab from the surface limited with template - swab from surface unlimited with template	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>4)</sup>
	Enumeration of microorganisms <sup>2)</sup> Colony count technique (spread plate method)	PN-EN ISO 6888-1 <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method test-tube	PN-ISO 4831 <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method test-tube with biochemical confirmation	PN-ISO 7251 <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	PN-EN ISO 11290-1 <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	PN-EN ISO 6579-1 <sup>5)</sup>
<b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Most probable number of microorganisms <sup>2)</sup> Tube fermentation technique MPN	Standardized methods <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed and pet food</b> <b>Environmental samples (food and feed production)</b> <sup>1)</sup>	Presence of specific DNA for tested microorganism <sup>2)</sup> MDS System, isoPCR method (isothermal polymerase chain reaction)	In-house test procedures <sup>3)</sup>

Within the flexible scope of accreditation, it is allowed:

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- 2) Adding the examined feature within the subject/ groups of subjects and methods (research technique).
- 3) Applying updated and implemented new methods described in-house test procedures.
- 4) Applying updated and implemented new methods described in the standardized methods.
- 5) Applying updated methods described in the standardized methods

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<b>Cosmetics Microbiology Laboratory Tychy</b> Goździków 1, 43-100 Tychy		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Paper, cardboard, paper and cardboard products</b>	Permeability of the antimicrobial components Culturing, diffusion method	PN-EN 1104:2019-02
<b>Chemical disinfectants and antiseptics</b>	Effectiveness of disinfectants and antiseptics Hygienic hand washing method	PN-EN 1499:2013-07
	Effectiveness of disinfectants and antiseptics Rub method	PN-EN 1500:2013-07
	Effectiveness of disinfectants and antiseptics Test method on non-porous surfaces	PN-EN 13697:2015-06; PN-EN 13697:2015-06/ A1:2019-08

<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Environmental samples from areas of cosmetics production and cosmetics trade</b> <sup>1)</sup> <b>Cosmetics</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Cosmetics</b>	Detection of microorganisms <sup>2)</sup> Culturing method test-tube	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method test-tube with biochemical confirmation	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Cosmetics</b>	Effectiveness of antimicrobial protection of a cosmetic product Colony count technique (pour plate method)	PN-EN ISO 11930 <sup>6)</sup>
<b>Chemical products</b> <sup>1)</sup>	Enumeration of microorganisms <sup>2), 3)</sup> Colony count technique (pour plate method)	Standardized methods <sup>5)</sup>
<b>Chemical products</b> <sup>1)</sup>	Detection of microorganisms <sup>2)</sup> Culturing method test-tube with biochemical confirmation	Standardized methods <sup>5)</sup>
<b>Environmental samples from areas of cosmetics production and cosmetics trade:</b> <b>- contact plates (surfaces)</b> <b>- agar plates (air)</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Chemical disinfectants and antiseptics</b>	Effectiveness of disinfectants and antiseptics <sup>2)</sup> Quantitative suspension method	Standardized methods <sup>5)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of research within the group of subjects.
- 2) Adding the examined feature within the subject / groups of subjects and methods (research technique).
- 3) Change in the measuring range of the test method.
- 4) Applying updated and implemented new methods described in-house test procedures.
- 5) Applying updated and implemented new methods described in the standardized methods.
- 6) Applying updated methods described in the standardized methods

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<b>Microbiology Laboratory Maków Mazowiecki</b> ul. Przemysłowa 5, 06-200 Maków Mazowiecki		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Fruit and vegetable products and vegetable with meat products</b>	Cans durability Thermostat test method	PN-90/A-75052/03
<b>Meat and meat products</b>	Cans durability Thermostat test method	PN-A-82055-5:1994
<b>Raw milk and non-cooked dairy products</b> <b>Heat-processed milk and dairy products</b>	Number of aerobic mesophilic at 30°C for 72h Petri film method	PB-421 ed. 1 of 07.02.2023 Based on the manufacturer's instruction for 3M Petri film plates
	Number of Enterobacteriaceae at 37°C for 24h Petri film method	PB-422 ed. 1 of 07.02.2023 Based on the manufacturer's instruction for 3M Petri film plates
<b>Food:</b> - Raw meat and raw meat products ready to be prepared (except poultry) - Ready-to-eat or ready-to-reheat meat products - Raw poultry and raw poultry products ready to be prepared - Ready-to-eat or ready-to-heat poultry products - Eggs and egg products (derivates) - Ready-to-eat or ready-to-reheat fish products - Fresh vegetables and fruits - Processed fruits and vegetables - Dried cereals, fruits, nuts, seeds and vegetables - Infant formula and infant cereals - Chocolate, confectionery and bread - Multi-component foods or meal components  <b>Feed and pet food</b>  <b>Environmental samples (food and feed production):</b> - environmental samples of defined surfaces - environmental samples of undefined surfaces, including the hands - washings	Number of aerobic mesophilic at 30°C for 48h Petri film method	PB-421 ed. 1 of 07.02.2023 Based on the manufacturer's instruction for 3M Petri film plates
	Number of Enterobacteriaceae at 37°C for 24h Petri film method	PB-422 ed. 1 of 07.02.2023 Based on the manufacturer's instruction for 3M Petri film plates

<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Environmental samples from food production areas as well as food trade:</b> - contact plates (surfaces) - agar plates (air)	Enumeration of microorganism <sup>2)</sup> Colony count technique	Standardized methods <sup>3)</sup> In-house test procedure <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>  <b>Environmental samples from food production areas as well as food and cosmetics trade:</b> - Environmental samples of defined surfaces - Environmental samples of undefined surfaces, including the hands	Enumeration of microorganism <sup>2)</sup> Colony count technique (spread plate method)	Standardized methods <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>  <b>Environmental samples from cosmetics trade:</b> - Environmental samples of defined surfaces - Environmental samples of undefined surfaces, including the hands  <b>Water</b> <sup>1)</sup>	Enumeration of microorganism <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>3)</sup> In-house test procedure <sup>4)</sup>
<b>Environmental samples from food production areas as well as food trade</b> <sup>1)</sup>	Enumeration of microorganism <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>3)</sup> In-house test procedure <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>3)</sup> In-house test procedure <sup>4)</sup>
<b>Environmental samples from food production areas as well as food and cosmetics trade:</b> - Environmental samples of defined surfaces - Environmental samples of undefined surfaces, including the hands	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>3)</sup> In-house test procedure <sup>4)</sup>

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Food</b> <sup>1)</sup> <b>Feed</b>  <b>Environmental samples from cosmetics trade:</b> - Environmental samples of defined surfaces - Environmental samples of undefined surfaces, including the hands  <b>Samples taken at the primary production stage:</b> - animal stool samples - plantar swabs	Detection of microorganism <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>3)</sup> In-house test procedure <sup>4)</sup>
	<b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Detection of microorganism <sup>2)</sup> Culturing method with biochemical and serological confirmation
<b>Food</b> <sup>1)</sup>	Detection of microorganism <sup>2)</sup> Culturing method with biochemical and microscopic confirmation	Standardized methods <sup>3)</sup> In-house test procedure <sup>4)</sup>
<b>Environmental samples from food production areas as well as food and cosmetics trade:</b> - Environmental samples of defined surfaces - Environmental samples of undefined surfaces, including the hands	Detection of microorganism <sup>2)</sup> Culturing method with biochemical and microscopic confirmation	Standardized methods <sup>3)</sup> In-house test procedure <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>	Detection of microorganism <sup>2)</sup> Culturing method test-tube with biochemical confirmation	Standardized methods <sup>3)</sup> In-house test procedure <sup>4)</sup>
<b>Environmental samples from food production areas as well as food and cosmetics trade:</b> - Environmental samples of defined surfaces - Environmental samples of undefined surfaces, including the hands	Detection of microorganism <sup>2)</sup> Culturing method test-tube with biochemical confirmation	Standardized methods <sup>3)</sup> In-house test procedure <sup>4)</sup>
<b>Food</b> <sup>1)</sup>	Detection of microorganism <sup>2)</sup> Culturing method	In-house test procedure <sup>4)</sup>
	Most probable number of pathogenic staphylococci (coagulase positive) Tube fermentation technique MPN	PN-EN ISO 6888-3 <sup>6)</sup>
	Most probable number Escherichia coli Tube fermentation technique MPN	PN-ISO 7251 <sup>6)</sup>
	Most probable number of coliforms Tube fermentation technique MPN	PN-ISO 4831 <sup>6)</sup>

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6)</sup>		
<b>Fruit and vegetable juices and concentrates</b>	Enumeration of Alicyclobacillus spp probably spoilage Membrane filtration method with biochemical confirmation	IFU Method No. 12 <sup>6)</sup>
<b>Food</b> <sup>1)</sup>	Detection of pathogenic bacteria <sup>2)</sup> Fluorescence immunoenzymatic method (ELFA)	PB-420 <sup>5)</sup>
<b>Environmental samples</b> <sup>1)</sup>	Detection of pathogenic bacteria <sup>2)</sup> Fluorescence immunoenzymatic method (ELFA)	PB-420 <sup>5)</sup>
<b>Water</b> <sup>1)</sup>	Enumeration of microorganism <sup>2)</sup> Membrane filtration method	Standardized methods <sup>3)</sup>

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- 3) Applying updated and implemented new methods described in the standardized methods
- 4) Applying updated and implemented new methods described in-house test procedures
- 5) Applying updated methods described in-house test procedures
- 6) Applying updated methods described in the standardized methods

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<b>Sensory Analysis Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Tea and coffee, Food concentrates, Meat and meat products, Milk and dairy products, Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices, syrups), Spirits and alcoholic beverages, Fruits, vegetables, fruit and vegetable products and vegetable with meat products, Fish and fishery products and seafood, Sweets and sugar confectionery, Herbal raw materials and products, spices, Foodstuffs for particular nutritional uses, Animal and vegetable fats and oils, Cereals and cereal products, Frozen products, Ready-made culinary products, Poultry and poultry products, Dietary supplements and nutritional foods, Drinking water, Food additives</b>	Determining perceptible sensory difference between samples Organoleptic attributes: appearance, colour, texture, consistency, odour, flavour Triangle test	PN-EN ISO 4120:2021-08
<b>Electrical products intended to come into contact with food, Ceramic materials and products intended to come into contact with food, Glass materials and products, Paper, cardboard, Packaging materials and components intended to come into contact with food, Plastics and rubber products intended to come into contact with food, Materials for the production of packaging, Food storage products, Non-woven fabric, wooden products and components intended to come into contact with food</b>	Odour and taste transferred in direct contact Range: 0 – 4 Multicomparison test	DIN 10955:2024-01
<b>Paper, cardboard</b>	Odour and taste transferred in direct contact Range: 0 – 4 Multicomparison test	PN-EN 1230-1:2009 PN-EN 1230-2:2009
<b>Reclosable packages designated as resistant to opening by children</b>	Opening easiness Test with participants Full and sequential method	PN-EN ISO 8317:2016-03

<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Food and agricultural products</b> <sup>1)</sup> <b>Cosmetics and chemical products</b> <sup>1)</sup>	Sensory attributes <sup>2)</sup> Simple descriptive test	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup> Methods described by a reputable organization <sup>5)</sup>
<b>Food</b> <sup>1)</sup>	Sensory attributes <sup>2)</sup> Scoring method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>

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- 2) Adding the examined feature within the subject / groups of subjects and methods (research techniques).
- 3) Applying updated and implemented new methods described in the in-house test procedures.
- 4) Applying updated and implemented new methods described in the standardized methods.
- 5) Applying updated methods described by a reputable organization.

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<b>Vitamin Analysis Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/ tested qualities/method	Reference document
<b>Agriculture products, including animal feedstuffs, Food concentrates, Non-alcoholic beverages, Milk and dairy products, Foodstuffs for particular nutritional uses, Dietary supplements and nutritional foods, Food additives</b>	Taurine content Range: (0,002 – 0,5) % High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PB-52/HPLC ed. II of 30.12.2008
<b>Agriculture products, including animal feedstuffs, Food concentrates, Non-alcoholic beverages, Milk and dairy products, Fruits, vegetables, fruit and vegetable products and vegetable with meat products, Fish and fishery products and seafood, Herbal raw materials and products, spices, Foodstuffs for particular nutritional uses, Cereals and cereal products, Dietary supplements and nutritional foods, Food additives</b>	Tryptophan content Range: (0,001 – 3,0) % High performance liquid chromatography method with fluorescence detection (HPLC-FLD)	PB-136/HPLC ed. I of 06.02.2012
<b>Agriculture products, including animal feedstuffs, Food concentrates, Meat and meat products, Milk and dairy products, Non-alcoholic beverages, Fruits, vegetables, fruit and vegetable products and vegetable with meat products, Fish and fishery products and seafood, Sweets and sugar confectionery, Herbal raw materials and products, spices, Foodstuffs for particular nutritional uses, Cereals and cereal products, Frozen products, Ready-made culinary products, Poultry and poultry products, Eggs and egg products, Dietary supplements and nutritional foods, Food additives</b>	Amino acids profile Range: Aspartic acid (0,005 – 10) % Glutamic acid (0,005 – 10) % Serine (0,005 – 10) % Glycine (0,005 – 10) % Histidine (0,005 – 10) % Arginine (0,005 – 10) % Threonine (0,005 – 10) % Alanine (0,005 – 10) % Proline (0,005 – 10) % Tyrosine (0,005 – 10) % Valine (0,005 – 10) % Methionine (0,005 – 10) % Cysteine (0,005 – 10) % Isoleucine (0,005 – 10) % Leucine (0,005 – 10) % Phenylalanine (0,005 – 10) % Lysine (0,005 – 10) % High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PB-53/HPLC ed. II of 30.12.2008

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Agricultural products</b> <sup>1)</sup> <b>Food</b> <sup>1)</sup>	Vitamins content <sup>2), 3)</sup> High performance liquid chromatography method with spectrophotometric detection (HPLCUV/Vis), diode array detection (HPLC-DAD) and fluorescence detection (HPLC-FLD)	Standardized methods <sup>4)</sup> In-house test procedures <sup>5)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>	Vitamins content <sup>2), 3)</sup> Microbiological method with microorganism as a test organism	In-house test procedures <sup>5)</sup>

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<b>Liquid Chromatography Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Coffee</b>	Caffeine content Range: (0,05 – 10) % High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PN-ISO 10095:1997
<b>Coffee and products containing coffee</b>	Caffeine content Range: (0,05 – 10) % High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	ISO 20481:2008
<b>Non-alcoholic beverages</b>	Caffeine concentration Range: (1 – 1000) mg/l High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PB-80/HPLC ed. I of 12.01.2009
<b>Water, drinking water</b>	Polycyclic aromatic hydrocarbons (PAH) concentration Range: Benzo(b)fluoranthene (0,0020 - 0,020)µg/l Benzo(k)fluoranthene (0,0020 - 0,020) µg/l Benzo(a)pyrene (0,0025 - 0,020)µg/l Benzo(ghi)perylene (0,0040 - 0,020)µg/l Indeno(1,2,3-cd)pyrene (0,0040 - 0,020) µg/l High performance liquid chromatography method with fluorescence detection (HPLC-FLD)	PN-EN ISO 17993:2005

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Herbal raw materials and products</b> <b>Spices</b> <b>Tea</b> <b>Dietary supplements</b>	Tropane alkaloids content Range: atropine (5,0 – 1000) µg/kg scopolamine (5,0 – 1000) µg/kg High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS) Sum (calculated)	PB-498 ed. I of 23.05.2022
<b>Honey</b>	Tropane alkaloids content Range: atropine (0,50 – 100) µg/kg scopolamine (0,50 – 100) µg/kg High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS) Sum (calculated)	PB-498 ed. I of 23.05.2022
<b>Herbal raw materials and products</b> <b>Spices</b> <b>Tea</b> <b>Dietary supplements</b>	Pyrrolizidine alkaloids content: - echimidine - echimidine N-oxide - echinatine N-oxide - erucifoline - erucifoline N-oxide - europine - europine N-oxide - heliosupine - heliosupine N-oxide - heliotrine - heliotrine N-oxide - intermedine - intermedine N-oxide (sum of intermedine N-oxide and indicine N-oxide as intermedine N-oxide) - jacobine - jacobine N-oxide - lasiocarpine - lasiocarpine N-oxide - lycopsamine (sum of lycopsamine, indicine and echinatine as lycopsamine) - lycopsamine N-oxide - monocrotaline - monocrotaline N-oxide - retrorsine (sum of retrorsine and usaramine as retrorsine) - retrorsine N-oxide - rinderine - rinderine N-oxide - senecionine - senecionine N-oxide (sum of senecionine N-oxide and integerrimine N-oxide as senecionine N-oxide) - seneciphylline (sum of seneciphylline and spartioidine as seneciphylline) - seneciphylline N-oxide (sum of seneciphylline N-oxide and spartioidine N-oxide as seneciphylline N-oxide) - senkirkine Range: (5,0 – 1000) µg/kg High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS) Sum (calculated)	PB-498 ed. I of 23.05.2022



Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Herbal raw materials and products</b> <b>Spices</b> <b>Tea</b> <b>Dietary supplements</b>	Pyrrolizidine alkaloids content: - senecivernine (sum of senecivernine and integerrimine as senecivernine) - senecivernine N-oxide - trichodesmine - usaramine N-oxide Range (5,0 – 1000) µg/kg High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS) Sum (calculated)	PB-498 ed. I of 23.05.2022
<b>Honey</b>	Pyrrolizidine alkaloids content: - echimidine - echimidine N-oxide - echinatine N-oxide - erucifoline - erucifoline N-oxide - europine - europine N-oxide - heliosupine - heliosupine N-oxide - heliotrine - heliotrine N-oxide - intermedine - intermedine N-oxide (sum of intermedine N-oxide and indicine N-oxide as intermedine N-oxide) - jacobine - jacobine N-oxide - lasiocarpine - lasiocarpine N-oxide - lycopsamine (sum of lycopsamine, indicine and echinatine as lycopsamine) - lycopsamine N-oxide - monocrotaline - monocrotaline N-oxide - retrorsine (sum of retrorsine and usaramine as retrorsine) - retrorsine N-oxide - rinderine - rinderine N-oxide - senecionine - senecionine N-oxide (sum of senecionine N-oxide and integerrimine N-oxide as senecionine N-oxide) - seneciphylline (sum of seneciphylline and spartioidine as seneciphylline) - seneciphylline N-oxide (sum of seneciphylline N-oxide and spartioidine N-oxide as seneciphylline N-oxide) - senkirkine - senecivernine (sum of senecivernine and integerrimine as senecivernine) - senecivernine N-oxide - trichodesmine - usaramine N-oxide Range (0,50- 100) µg/kg High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS) Sum (calculated)	PB-498 ed. I of 23.05.2022

<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6), 7)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Agricultural products</b> <sup>1)</sup> <b>Food</b> <sup>1)</sup>	Sugars and polyols content <sup>2), 3)</sup> High-performance liquid chromatography method with refractometric detection (HPLC-RID)	PB-79/HPLC <sup>5)</sup>
<b>Food</b> <sup>1)</sup>	Sugars content <sup>2), 3)</sup> High-performance anion exchange chromatography method with pulsed amperometry detection (HPIC-PAD)	PB-429 <sup>5)</sup>
<b>Food</b> <sup>1)</sup>	Polyols content <sup>2), 3)</sup> High-performance anion exchange chromatography method with pulsed amperometry detection (HPIC-PAD)	PB-429 <sup>5)</sup>
<b>Food</b> <sup>1)</sup>	Food additives content <sup>2), 3)</sup> High-performance liquid chromatography method with spectrophotometric detection (HPLCUV/Vis) and diode array detection (HPLC-DAD)	PN-EN 12856 <sup>4)</sup>
<b>Food</b> <sup>1)</sup>	Polycyclic aromatic hydrocarbons (PAHs) content <sup>2), 3)</sup> High-performance liquid chromatography method with fluorescence detection (HPLC-FLD)	PB-117/HPLC <sup>5)</sup>
<b>Agricultural products</b> <sup>1)</sup> <b>Food</b> <sup>1)</sup>	Mycotoxins content <sup>2), 3)</sup> High-performance liquid chromatography method with fluorescence detection (HPLC-FLD) spectrophotometric detection (HPLCUV/Vis) and diode array detection (HPLC-DAD)	Standardized methods <sup>6)</sup> In-house test procedures <sup>7)</sup>
<b>Food</b> <sup>1)</sup> <b>Agriculture products, including animal feedstuffs</b>	Mycotoxins content <sup>2), 3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	In-house test procedures <sup>7)</sup>
<b>Agriculture products, including animal feedstuffs</b> <sup>1)</sup> <b>Food</b> <sup>1)</sup>	Melamine and its analogues content <sup>2), 3)</sup> <sup>3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	In-house test procedures <sup>7)</sup>
<b>Food</b> <sup>1)</sup>	Nitrates and/or nitrites content <sup>2)3)</sup> High-performance liquid chromatography method with spectrophotometric detection (HPLCUV/Vis) and diode array detection (HPLC-DAD)	Standardized methods <sup>6)</sup>

<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6), 7)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Feed Food</b> <sup>1)</sup>	Biogenic amines content <sup>2), 3)</sup> High-performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	Standardized methods <sup>6)</sup> In-house test procedures <sup>7)</sup>

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- 5) Applying updated methods described in the in-house test procedures.
- 6) Applying updated and implemented new methods described in the standardized methods
- 7) Applying updated and implemented new methods described in in-house test procedures.

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<b>Gas Chromatography Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Agriculture products, including animal feedstuffs, Foodstuffs for particular nutritional uses, Animal and vegetable fats and oils Cereals and cereal products, Food additives, Products used in animal nutrition</b>	Antioxidants BHA, BHT content Range: (10 – 500) mg/kg Gas chromatography method with flame ionization detection (GC-FID)	ISO 6463:1982 PB-277/GC ed. I of 01.07.2014
<b>Milk fat and dairy products</b>	Foreign fats content Range: (2,0 – 100) % Gas chromatography method with flame ionization detection (GC-FID)	PN-EN ISO 17678:2019-07
<b>Milk and dairy products Meat products Sauces Chocolate goods Pastry goods Food concentrates</b>	Lactose content Range: (0,01 – 1,0) g/100g Gas chromatography method with flame ionization detection (GC-FID)	PB-371 ed. II of 04.03.2019
<b>Agriculture products, including animal feedstuffs, Animal and vegetable fats and oils, oilseeds</b>	Residual technical hexane content. Range: (0,5 – 1400) mg/kg Gas chromatography method with headspace analysis and flame ionization detection (HS-GC-FID)	PN-EN ISO 9832:2004 PN-EN ISO 8892:1999
<b>Cocoa butter Chocolate couverture Chocolate</b>	Cocoa butter equivalents (CBE) and milk fat (MF) content based on triacylglycerols composition Range: CBE: (2 – 100) g/100 g of fat MF: (1 – 100) g/100 g of fat Gas chromatography method with flame ionization detection (GC-FID)	PN-EN ISO 23275-1:2009 PN-EN ISO 23275-2:2010 EUR 20831:2003, EUR 22666:2007
<b>Liquid fuels: unleaded petrol Liquid petroleum products</b>	Organic oxygenate compounds and organically bound oxygen concentration Range: oxygenate compounds (0,17 – 15) % (m/m) organically bound oxygen (0,1 – 3,7) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-EN 13132:2005
<b>Liquid fuels: fatty acids methyl esters (FAME)</b>	Esters and particular fatty acids methyl esters content including linoleic acid methyl ester Range: Total ester content (80 – 100) % particular esters (0,1 – 70) % Gas chromatography method with flame ionization detection (GC-FID)	PN-EN 14103:2012

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Animal and vegetable fats and oils</b>	Free and bound 2-MCPD, free and bound 3-MCPD and glycidyl esters content Range: 2-monochloropropano-1,3-diol (2-MCPD) (0,15 – 2,5) mg/kg 3-monochloropropano-1,2-diol (3-MCPD) (0,15 – 2,5) mg/kg 3-monochloropropano-1,2-diol (3-MCPD) including glycidol (0,15 – 2,5) mg/kg Gas chromatography method with mass spectrometry (GC-MS) Glycidol content (calculated)	DGF C-VI 18 (10) Part A, Part B
<b>Pastry goods and confectionery, Cereal and potato snacks</b>	Free and bound 2-MCPD, free and bound 3-MCPD and glycidyl esters in extracted fat content Range: 2-monochloropropano-1,3-diol (2-MCPD) (0,15 – 2,5) mg/kg fat 3-monochloropropano-1,2-diol (3-MCPD) (0,15 – 2,5) mg/kg fat 3-monochloropropano-1,2-diol (3-MCPD) including glycidol (0,15 – 2,5) mg/kg fat Gas chromatography method with mass spectrometry (GC-MS) Per product (calculated) Glycidol content (calculated)	DGF C-VI 18 (10) Part A, Part B

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Products containing ethyl alcohol and other solvents</b> <sup>1)</sup>	Organic compounds concentration <sup>2),3)</sup> Gas chromatography method with flame ionization detection (GC-FID)	Standardized methods <sup>6)</sup> In-house test procedures <sup>5)</sup>
<b>Agriculture products</b> <sup>1)</sup> including <b>feed Food</b> <sup>1)</sup>	Sterols content <sup>2), 3)</sup> Gas chromatography method with flame ionization detection (GC-FID)	Standardized methods <sup>6)</sup> In-house test procedures <sup>5)</sup>
	Fatty acids content <sup>2), 3)</sup> Gas chromatography method with flame ionization detection (GC-FID) Sum (calculated)	Standardized methods <sup>6)</sup> In-house test procedures <sup>5)</sup>
<b>Agriculture products, including animal feedstuffs</b> <sup>1)</sup> <b>Food</b> <sup>1)</sup>	Pesticides residues content <sup>2), 3)</sup> Gas chromatography method with mass spectrometry (GC-MS), tandem mass spectrometry detection (GC-MS-MS)	Standardized methods <sup>6)</sup> In-house test procedures <sup>5)</sup>
	Pesticides residues content <sup>2), 3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS-MS)	Standardized methods <sup>6)</sup> In-house test procedures <sup>5)</sup>
	Antibiotics and chemotherapeutics residues content <sup>2), 3)</sup> Gas chromatography method with mass spectrometry (GC-MS)	Standardized methods <sup>6)</sup> In-house test procedures <sup>5)</sup>
<b>Herbs</b>	Pesticides residues content <sup>2), 3)</sup> Gas chromatography method with tandem mass spectrometry detection (GC-MS-MS)	PES/01 <sup>4)</sup>
	Dithiocarbamates content expressed as carbon disulphide <sup>2), 3)</sup> Headspace gas chromatography method with electron capture detection (HS-GC-ECD)	PES/03 <sup>4)</sup>
<b>Food</b> <sup>1)</sup>	Acrylamide content <sup>3)</sup> Gas chromatography method with mass spectrometry (GC-MS)	In-house test procedures <sup>5)</sup>

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<b>Spectroscopy Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Tea and coffee</b> <b>Food concentrates</b> <b>Meat and meat products</b> <b>Milk and dairy products</b> <b>Non-alcoholic beverages</b> <b>Spirits and alcoholic beverages</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b> <b>Fish and fishery products and seafood</b> <b>Sweets and sugar confectionery</b> <b>Herbal raw materials and products, spices,</b> <b>Foodstuffs for particular nutritional uses,</b> <b>Animal and vegetable fats and oils</b> <b>Cereals and cereal products</b> <b>Ready-made culinary products</b> <b>Eggs and egg products</b> <b>Dietary supplements and nutritional foods</b> <b>Animal feedstuffs</b> <b>Oilseeds</b>	Elements content Range: Pb (0,01 – 5,0) mg/kg Cr (0,01 – 5,0) mg/kg Cu (0,01 – 10,0) mg/kg Fe (0,01 – 50,0) mg/kg Cd (0,002 – 1,00) mg/kg Zn (0,05 – 50,0) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-68/ICP ed. III of 18.09.2012
<b>Tea and coffee</b> <b>Food concentrates</b> <b>Meat and meat products</b> <b>Milk and dairy products</b> <b>Non-alcoholic beverages</b> <b>Spirits and alcoholic beverages</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b> <b>Fish and fishery products and seafood</b> <b>Sweets and sugar confectionery</b> <b>Herbal raw materials and products, spices,</b> <b>Foodstuffs for particular nutritional uses,</b> <b>Animal and vegetable fats and oils</b> <b>Cereals and cereal products</b> <b>Frozen products</b> <b>Ready-made culinary products</b> <b>Eggs and egg products</b> <b>Dietary supplements and nutritional foods</b> <b>Animal feedstuffs</b> <b>Oilseeds</b>	Mercury content Range: (0,0006 – 10) mg/kg Atomic absorption spectrometry method with amalgamation technique	PB-30/PICP ed. 6 of 09.06.2023
<b>Fatty acids methyl esters (FAME)</b>	Phosphorus content Range: (1,00 – 221) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-69/ICP ed. III of 18.09.2012

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Meat and meat products</b>	Phosphorus content Range: (0,1 – 10) g/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PN-A-82060:1999
	Added phosphorus content expressed as P <sub>2</sub> O <sub>5</sub> (calculated)	
<b>Fish and seafood</b>	Phosphorus content Range: (300 – 10000) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-317/ICP ed. II of 18.12.2019
	Added phosphorus content expressed as P <sub>2</sub> O <sub>5</sub> (calculated)	
<b>Animal and vegetable fats and oils</b>	Phosphorus content Range: (1,00 – 221) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-69/ICP ed. III of 18.09.2012

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<p><i>Tests carried out for the purposes of the regulated area:</i></p> <ul style="list-style-type: none"> <li>– Regulation of the Minister of Economy of 16 July 2015 on the acceptance of waste to landfills (<i>Journal of Laws of 2015, item 1277</i>)</li> <li>– Regulation of the Minister of the Environment of 11 May 2015 on waste recovery outside the installations and devices (<i>Journal of Laws of 2015, item 796</i>)</li> </ul>		
<p><b>Waste</b> <sup>DAB-11:</sup></p> <ul style="list-style-type: none"> <li>– <b>Mineral deposits and waste (I);</b></li> <li>– <b>Construction waste (III);</b></li> <li>– <b>Slag, ash and furnace dust (XI)</b></li> </ul>	<p>Elements content</p> <p>Range:</p> <p>As (10,0 – 500) mg/kg</p> <p>Ba (100 – 3000) mg/kg</p> <p>Cd (2,00 - 250) mg/kg</p> <p>Co (10,0 - 500) mg/kg</p> <p>Cr (100 - 1000) mg/kg</p> <p>Cu (100 - 1000) mg/kg</p> <p>Mo (10,0 - 500) mg/kg</p> <p>Ni (100 - 500) mg/kg</p> <p>Pb (100 - 1000) mg/kg</p> <p>Zn (100 - 3000) mg/kg</p> <p>Sn (10,0 - 500) mg/kg</p> <p>Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)</p>	<p>PB-488/ICP ed. 2 of 07.02.2022</p>
	<p>Mercury content</p> <p>Range: (0,010 – 50,0) mg/kg</p> <p>Atomic absorption spectrometry method with cold-vapor generation (CVAAS)</p>	<p>PB-488/ICP ed. 2 of. 07.02.2022</p>

<sup>DAB-11</sup>) Waste codes according to Minister of Climate Regulation on the waste catalogue for the validation group are given in Annex No. 1 to DAB-11.

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Water, drinking water, sewage, soil, sediments</b> <b>Plant growth substances</b> <sup>1)</sup> <b>Waste</b> <sup>0)</sup> <b>group code: 17 03 80</b>	Concentration/ content of elements <sup>2), 3)</sup> Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Aqueous extract prepared from waste in Environmental Analysis Laboratory Malaszewicze</b> <sup>DAB-11</sup> <b>and aqueous extract from waste</b> <sup>0)</sup> <b>group code: 17 03 80</b>	Concentration of elements <sup>2), 3)</sup> Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)  Elements content (calculated)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Water, drinking water, sewage, soil, sediments</b> <b>Plant growth substances</b> <sup>1)</sup> <b>Waste</b> <sup>0)</sup> <b>group code: 17 03 80</b>	Concentration/ content of mercury <sup>3)</sup> Atomic absorption spectrometry method with cold-vapor generation (CVAAS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Aqueous extract prepared from waste in Environmental Analysis Laboratory Malaszewicze</b> <sup>DAB-11</sup> <b>and aqueous extract from waste</b> <sup>0)</sup> <b>group code: 17 03 80</b>	Concentration of mercury <sup>3)</sup> Atomic absorption spectrometry method with cold-vapor generation (CVAAS)  Mercury content (calculated)	
<b>Food</b> <sup>1)</sup> <b>Water, drinking water, sewage, soil, sediments</b> <b>Agriculture products, including animal feedstuffs</b>	Concentration/ content of elements <sup>2), 3)</sup> Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Food</b> <sup>1)</sup>	Concentration/ content of elements <sup>2), 3)</sup> Flame atomic absorption spectroscopy method (FAAS)	In-house test procedures <sup>4)</sup>
<b>Food</b> <sup>1)</sup>	Concentration / content of elements <sup>2), 3)</sup> Atomic emission spectrometry method with inductively coupled plasma (ICP-OES) NaCl content (calculated) P <sub>2</sub> O <sub>5</sub> content (calculated)	In-house test procedures <sup>4)</sup>

<sup>0)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of research within the group of subjects.
- 2) Adding the tested feature within the subject / groups of subjects and method (research technique).
- 3) Change in the measuring range of the test method.
- 4) Applying updated and implemented new methods described in-house test procedures.
- 5) Applying updated and implemented new methods described in the standardized methods.

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<b>Dioxin Analysis Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Food</b> <sup>1)</sup> <b>Agriculture products including feed</b> <sup>1)</sup>	Determination of dioxin and dioxin-like PCB and indicator PCBs <sup>2),3)</sup> Gas chromatography method with high resolution mass spectrometry (GC-HRMS)	PB-408 <sup>4)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of research within the group of subjects.
- 2) Adding the examined feature within the subject / groups of subjects and method (research technique).
- 3) Change in the measuring range of the test method.
- 4) Applying updated methods described in the in-house test procedures

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<b>Classical Analysis Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Tea and coffee</b> <b>Food concentrates,</b> <b>Meat and meat products,</b> <b>Non-alcoholic beverages</b> <b>(carbonated and non-carbonated soft drinks, juices, syrups),</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products,</b> <b>Sweets and sugar confectionery</b> <b>Foodstuffs for particular nutritional uses,</b> <b>Frozen products,</b> <b>Dietary supplements and nutritional foods</b>	Vitamin C content Range: (10,0 – 100,0) mg/100 g Titrimetric method	PN-A-04019:1998 p. 2
	<b>Milk and dairy products,</b> <b>Ready-made culinary products</b>	
<b>Food concentrates</b> <b>Meat and meat products</b> <b>Fish and fishery products and seafoods</b> <b>Ready-made culinary products,</b> <b>Poultry and poultry products</b> <b>Milk and dairy products</b> <b>Cereals and cereal products</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b> <b>Foodstuffs for particular nutritional uses</b> <b>Sweets and sugar confectionery</b> <b>Herbal raw materials and products, spices</b> <b>Animal and vegetable fats and oils</b> <b>Dietary supplements and nutritional foods</b> <b>Animal feedstuffs</b>	Water activity Range: (0,100 – 1,000) Vapour pressure method	PN-ISO 21807:2005
<b>Bioethanol</b> <b>Spirits</b>	Ethanol content (proof) Range: (60 – 99,9) % Gravimetric method	PN-A-79528-3:2007 p. 5.1
	Dry residue after evaporation Range: (0,001 – 0,050) g/l Gravimetric method	PN-A-79528-12-2000
<b>Herbal raw materials and products, spices</b>	Essential oils content Range: (0,5 – 4,5) ml/100g on dry matter Volumetric-distillation method	PB-414 ed. I of 18.12.2020

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Caseinates</b>	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005
<b>Casein and caseinates</b>	Scorched particles Range: A – D Filtration method	ISO 5739:2003 IDF-FIL 107:2003 PN-ISO 5739:2010
<b>Alcoholic beverages: beer</b>	Alcohol content Range: (0,2 – 10,0) % (v/v) Gravimetric method	PN-A-79093-2:2000+Ap1:2002
<b>Milk</b>	Peroxidase activity (qualitative test)	PB-22 ed. III of 04.02.2009
<b>Fish and fishery products and seafood</b>	Total volatile bases nitrogen (TVB-N) content Range: (4,0 – 150,0) mg N/100 g Titrimetric method	PN-A-86791:1995
<b>Milk products: buttermilk powder</b>	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005
<b>Dried milk</b>	Phosphatase activity (qualitative test)	IDF-FIL/RM 82:2004 ISO/TS 6090:2004
	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005 ADPI , Section 1, 2016
	Purity index (scorched particles) Range: A – D Filtration method	ADPI , Section 1, 2016
<b>Dried milk</b>	WPN (assessment of heat treatment) Range: (1,0 – 7,3) mg/g N Spectrophotometric method	ADPI , Section 1, 2016
	Lactic acid and lactates content Range: (20 – 300) mg/100g Spectrophotometric method	PN-EN ISO 8069:2008 ISO 8069:2005 IDF 69:2005
<b>Bee honey</b>	Presence of starch Range: from 0,05% (Qualitative test)	Ministry of Agriculture and Rural Development Regulation of 14 January 2009, Annex p.XII 4.3, (Journal of Laws No. 17, item 94)
<b>Animal and vegetable fats and oils</b>	Insoluble impurities content Range: (0,01 – 0,5) % Gravimetric method	PN-EN ISO 663:2017-03 ISO 663:2017-03
	Anisidine value Range: 0,5 – 11,0 Spectrophotometric method	PN-EN ISO 6885:2016-04
<b>Fruits and vegetables, Fruit and vegetable preserves</b>	Sulphur dioxide content Range: (10 – 3000) mg/kg Titrimetric method	PN-90/A-75101/23+Az2:2002 PN-EN 13196:2002
<b>Meat and meat products</b>	Collagen content Range: (0,8 – 10) % Connective tissue content (ratio of collagen to protein content in meat) Range: (3 – 30) % (calculated)	Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Meat and meat products</b>	Hydroxyproline content Range: (0,1 – 1,25) % Spectrophotometric method	PN-ISO 3496:2000 ISO 3496:1994
<b>Animal and vegetable fats and oils</b>	Peroxide value Range: (0,1 – 30) meq/kg Titrimetric method	PN-EN ISO 3960:2017-03 ISO 3960:2017-03
	Iodine value Range: (5 – 180) g/100 g Titrimetric method	PN-EN ISO 3961:2018-09
	Lovibond colour Range: Red units (0,1 – 20) Yellow units (0,1 – 70) Blue units (0,1 – 0,9) Neutral units (0,1 – 3) Colorimetric method	PN-ISO 15305:2001 ISO 15305:1998 AOCS Cc 13e-92:2002
	Conventional mass per volume (litre „weight” in air) Range: (0,7000 – 1,0000) g/ml Gravimetric method	PN-EN ISO 6883:2017-03
	Free fatty acids content (acid value) Range: (0,01 – 8,0) % Acid value Range: (0,02 – 16,0) mg KOH/g Titrimetric method	PN-EN ISO 660:2021-03 ISO 660:2020
	<b>Feed, Sharps</b>	Crude fibre content (fibre) Range: (0,2 – 25) % Gravimetric method
	Starch content Range: (1,0 – 80) % Polarimetric method	ISO 6493:2000 PN-R-64785:1994
<b>Milk products: Dry whey</b>	Phosphatase activity (qualitative test)	IDF-FIL/RM 82:2004 ISO/TS 6090:2004
	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	PB-26 ed. III of 04.02.2009
	Scorched particles Range: A – D Filtration method	PB-31 ed. III of 04.02.2009
<b>Milk products: Dry cream</b>	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005
<b>Cereals - wheat</b>	Sedimentation index Range: (10 – 70) ml Zeleny test	PN-EN ISO 5529:2010
<b>Cereals and cereal products</b>	Falling number Range: (60 – 480) s Viscosimetric method	PN-EN ISO 3093:2010 ISO 3093:2009
<b>Milk and milk products, Alcoholic beverages, Wine, Beer, Non-alcoholic beverages, Liquid food concentrates, Liquid dietary supplements, Oils</b>	Density Range: (0,8000 – 1,3200) g/cm <sup>3</sup> Oscillating method	PB-381 ed. 2 of 01.12.2021

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Spirits beverages (spirit, spirits drinks)</b>	Ethanol content (proof) Range: (30 – 99,9) % Oscillating method	PN-A-79529-4:2005 p. 7.2
	Density Range: (0,8000 – 1,1000) g/cm <sup>3</sup> Oscillating method	PN-A-79529-4:2005 p. 6.2
<b>Fruit and vegetable products</b>	Total extract content Range: (4,0 – 40,0) % (m/m) Refractometric method	PN-A-75101-02:1990+Az1:2002 p. 2
<b>Non-alcoholic beverages</b>	Total extract content Range: (0,2 – 12,0) % (m/m) Refractometric method	PN-A-79033:1985 p.3.6.1
<b>Sugar confectionery</b>	Alcohol content Range: (0,05 – 5,5) g / 100g Pycnometric method	PN-A-88026:1981
<b>Vegetable and fruits juices, nectars</b>	Soluble substances content Range: (5,0 – 70,0)% (m/m) Refractometric method	PN-EN 12143:2000
	Relative density 20°C/20°C Range: (1,0000 – 1,1000) Gravimetric method	PN-EN 1131:1999
	Density Range: (1,0000 – 1,1000) g/cm <sup>3</sup> Gravimetric method	PN-EN 1131:1999 PB-276 ed. I of 10.07.2014 p. 7
<b>Bioethanol Spirits</b>	Acidity (as acetic acid) Range: (0,003 – 0,030) g/l ethanol 100 % Titrimetric method	PN-A-79528-7:2001

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Flexible scope of accreditation</b> 1), 2), 3), 4), 5), 6), 7), 8)		
<b>Food</b> <sup>1)</sup>	pH <sup>2)</sup> Potentiometric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Nitrites and nitrates content <sup>2)</sup> Spectrophotometric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Total sugars after inversion content <sup>2)</sup> Titrimetric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Carbohydrates content <sup>2), 8)</sup> Spectrophotometric method	ISO 5765 <sup>7)</sup> PB-265 <sup>6)</sup>
<b>Food</b> <sup>1)</sup> <b>Agriculture products, including animal feedstuffs</b>	Water and volatile matter content (dry matter) <sup>2)</sup> Gravimetric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup> Legislation <sup>5)</sup>
	Ash content <sup>2)</sup> Gravimetric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup> Legislation <sup>5)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of research within the group of subjects.
- 2) Change in the measuring range of the test method.
- 3) Applying updated and implemented new methods described in-house test procedures.
- 4) Applying updated and implemented new methods described in the standardized methods.
- 5) Applying updated and implemented new methods described in the legislation.
- 6) Applying updated methods described in-house test procedures
- 7) Applying updated methods described in the standardized methods.
- 8) Adding the tested feature within the subject/group of subjects and methods (research technique).

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<b>Nutrition Analysis Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Foodstuffs for particular nutritional uses</b> <b>Sweets and sugar confectionery</b> <b>Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices, syrups),</b> <b>Spirits and alcoholic beverages,</b> <b>Tea and coffee</b> <b>Animal and vegetable fats and oils</b> <b>Milk and dairy products,</b> <b>Dietary supplements and nutritional foods</b> <b>Food additives</b> <b>Meat and meat products,</b> <b>Fish and fishery products and seafood,</b> <b>Ready-made culinary products,</b> <b>Poultry and poultry products,</b> <b>Eggs and egg products</b> <b>Food concentrates</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b> <b>Herbal raw materials and products, spices</b> <b>Frozen products</b> <b>Oilseeds</b> <b>Cereals and cereal products</b> <b>Animal feedstuffs</b>	Kjeldahl nitrogen content Range: (0,05– 14,5) % Protein content Range: (0,3 – 93,0) % Titrimetric method	PB-116 ed. III of 11.08.2020
<b>Milk and dairy products</b>	Kjeldahl nitrogen content Range: (0,3 – 14,5) % Protein content Range: (2,0 – 93,0) % Titrimetric method	PN-EN ISO 8968-3:2008
<b>Cereals and cereal products</b>	Kjeldahl nitrogen content Range: (1,3 – 12,0) % Protein content Range: (8,0 – 75,0) % Titrimetric method	PN-EN ISO 20483:2014-02

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Non-alcoholic beverages</b> <b>Spirits and alcoholic beverages</b> <b>Milk and dairy products</b> <b>Meat and meat products</b> <b>Fish and fishery products and seafood</b> <b>Eggs and egg products</b> <b>Food concentrates</b> <b>Animal and vegetable fats and oils</b> <b>Ready-made culinary products</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b> <b>Sugar confectionery</b> <b>Cereals and cereal products</b> <b>Bread and bakery products</b> <b>Dietary supplements and nutritional foods</b> <b>Herbal raw materials and products, spices, Oilseeds</b> <b>Feed</b>	Dietary fibre content Range: (0,5 – 50) % Gravimetric method	AOAC 991.43:1994
<b>Tea and coffee</b> <b>Food concentrates,</b> <b>Meat and meat products,</b> <b>Milk and dairy products,</b> <b>Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices, syrups),</b> <b>Spirits and alcoholic beverages,</b> <b>Oilseeds,</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products,</b> <b>Fish and fishery products and seafood,</b> <b>Sweets and sugar confectionery,</b> <b>Herbal raw materials and products, spices,</b> <b>Foodstuffs for particular nutritional uses,</b> <b>Animal and vegetable fats and oils,</b> <b>Cereals and cereal products,</b> <b>Frozen products,</b> <b>Ready-made culinary products,</b> <b>Poultry and poultry products,</b> <b>Eggs and egg products,</b> <b>Carcases, clippings from carcasses,</b> <b>Dietary supplements and nutritional foods,</b> <b>Food additives</b>	Energy Carbohydrates content (calculated)	Regulation (EU) No 1169/2011 of the Parliament and of the Council of 25 October 2011  FDA Nutrition Labelling Manual  Guide to Food Labelling and Advertising (Canadian Food Inspection Agency)

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Casein</b>	Free acidity Range: (0,01 – 0,70) 0,1 mol/l NaOH/1 g Titrimetric method	ISO 5547:2008 IDF-FIL 91:2008 PN-ISO 5547:2010
<b>Food concentrates Cereal crisps</b>	Chlorides content Range: (0,1 – 40) % Titrimetric method	PN-A-79011-7:1998
<b>Butter, milk products intended to spread</b>	Chlorides content Range: (0,1 – 5) % Titrimetric method (Mohr)	ISO 1738:2004 IDF-FIL 12:2004
	Fat acidity Range: (0,1 – 2,0) mmol/100g Titrimetric method	ISO 1740:2004 IDF-FIL 6:2004
<b>Milk products: buttermilk powder</b>	Acidity Range: (0,01 – 0,2) % Titrimetric method	ADPI , Section 1, 2016
<b>Dried milk</b>	Acidity Range: (0,08 – 0,2) % Titrimetric method	ADPI , Section 1, 2016
	Acidity Range: from 8,0 ml 0,1 mol/l NaOH/10 g non-fat dry matter to 20 ml 0,1 mol/l NaOH/10 g non-fat dry matter Titrimetric method	PN-ISO 6091:2012
<b>Fruits and vegetables, Fruit and vegetable preserves</b>	Total acidity as particular acid content Range: (0,1 – 2,5) % (m/m) Titrimetric method	PN-90/A-75101/04+Az1:2002
<b>Meat and meat products</b>	Meat content (calculated)	PB-282 ed. II of 06.09.2016
<b>Meat and meat products</b>	Salt content Range: (0,1 – 10) % Titrimetric method	PN-73/A-82112+Az1:2002
<b>Fish and fishery products</b>	Salt content Range: (0,1 – 8,0) % Titrimetric method	PN-74/A-86739 PN-85/A-82100
	Total acidity Range: (0,5 – 4,0) % Titrimetric method	PN-74/A-86746 PN-85/A-82100
<b>Milk products: Dry whey</b>	Acidity Range: (0,05 – 2,0) % Titrimetric method	PB-25 ed. III of 04.02.2009
<b>Milk products: Cheese</b>	Chlorides content Range: (0,2 – 6,0) % Potentiometric method	PN-EN ISO 5943:2007 ISO 5943:2006 IDF-FIL 88:2006

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Milk products: Cream and sour cream</b>	Acidity Range: (0,2 – 30) °SH Titrimetric method	PN-78/A-86028+Az2:2002
<b>Ready-made culinary products Frozen culinary products</b>	Sodium chloride content Range: (0,5 – 5) % Titrimetric method	PN-85/A-82100

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Food</b> <sup>1)</sup> <b>Animal feedstuffs</b>	Fat content <sup>2)</sup> Gravimetric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup> Legislation <sup>5)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of research within the group of subjects.
- 2) Change in the measuring range of the test method.
- 3) Applying updated and implemented new methods described in-house test procedures.
- 4) Applying updated and implemented new methods described in the standardized methods.
- 5) Applying updated and implemented new methods described in the legislation.

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<b>Non-Food and Packaging Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Household chemistry products: liquids and gels, powders, pastes, liquid soaps, shampoos</b>	Density Range: (0,860 – 1,300) g/cm <sup>3</sup> Gravimetric method	PN-92/C-04504 p. 4
	Dry residue Range: (0,1 – 60,0) % (m/m) Gravimetric method	PB-107 ed. I of 01.09.2010
	Dry organic residue Range: (0,1 – 60,0) % (m/m) (calculated)	
	Chloride content as NaCl Range: (0,1 – 10,0) % (m/m) Titrimetric method	PB-108 ed. I of 01.09.2010
	pH Range: 1,0 – 12,0 Potentiometric method	PB-109 ed. I of 01.09.2010
	pH of 1% water solution Range: 2,0 – 12,0 Potentiometric method	
<b>Household chemistry products and cosmetics: - liquids and gels, powders, pastes, liquid soaps, shampoos</b>	Anionic-active matter content Range: (0,50 – 30,00) % (m/m) Titrimetric method	PN-ISO 2271:2000
<b>Household chemistry products and cosmetics: - liquids and gels, liquid soaps, shampoos</b>	Density Range: (0,850 – 1,350) g/cm <sup>3</sup> Oscillating method	PB-489 ed. I of 15.10.2021
<b>Paper and cardboard materials and articles Plastic materials and articles</b>	Colour fastness Range: (1 – 5) Visual method	PN-EN 648:2019-03
<b>Paper and cardboard materials and articles</b>	Grammage Range: (25,0 – 1000) g/m <sup>2</sup> Gravimetric method	PN-EN ISO 536:2020-08
	Determination of moisture content Range: (0,05 – 60,0) % Gravimetric method	PN-EN ISO 287:2018-02
	Colour fastness Range: (1 – 5) Visual method	PN-EN 646:2019-03
	Determination of benzophenone, 4-methylbenzophenone, 2- hydroxybenzophenone, 4- hydroxybenzophenone Range: (0,02 – 10) mg/dm <sup>2</sup> Gas chromatography method with mass spectrometry (GC-MS)	PB-247/GC ed. I of 03.02.2014

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Paper and cardboard materials and articles</b>	Determination of 4,4'-bis(dimethyloamino)benzophenone and 4,4'-bis(diethyloamino)benzophenone Range: (0,0016 – 0,0048) mg/dm <sup>2</sup> Gas chromatography method with mass spectrometry (GC-MS)	PB-252/GC ed. I of 03.02.2014
<b>Paper and cardboard materials and articles and water extracts</b>	Determination of formaldehyde Range: (1,0 – 30) mg/kg (0,0010 – 3,0) mg/dm <sup>2</sup> Spectrophotometric method	PN-EN 1541:2003
<b>Paper, fibre and cardboard materials and articles</b>	Determination of diisopropyl-naphthalene Range: (0,6 – 10) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PN-EN 14719: 2006
<b>Paper, fibre and cardboard materials and articles and water extracts</b>	Determination of pentachlorophenol Range: (0,05 – 0,5) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PN-EN ISO 15320: 2011
<b>Tissue paper and tissue products</b>	Grammage Range: (15,0 – 85,0) g/m <sup>2</sup> Gravimetric method	PN-EN ISO 12625-6:2017-03
<b>Paper and cardboard materials and articles and water extracts</b>	Concentration of bisphenol A Range: (0,010 – 5,0) µg/ml High performance liquid chromatography method with fluorescence detection (HPLC-FLD) Bisphenol A content (calculated)	CEN/TS 13130-13:2005 IW-28/PNF ed. I of 21.09.2015

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Plastic materials and articles intended to come into contact with food</b> <b>Food simulants after migration</b>	Determination of formaldehyde Range: (1,5 – 30) mg/kg of food simulant Spectrophotometric method with 2,4–pentanodione	CEN/TS 13130-23:2005
	Specific migration of formaldehyde (calculated)	
	Determination of hexamethylenetetramine expressed as formaldehyde Range: (1,5 – 30) mg/kg of food simulant Spectrophotometric method with 2,4–pentanodione	
	Specific migration of hexamethylenetetramine expressed as formaldehyde (calculated)	
<b>Plastic materials and articles intended to come into contact with food</b> <b>Food simulants after migration</b>	Determination of vinyl acetate Range: (1,2 – 24,0) mg/kg of food simulant Headspace gas chromatography method with flame ionization detection (HS-GC-FID)	CEN/TS 13130-9:2005
	Specific migration of vinyl acetate (calculated)	
	Determination of maleic anhydride (as maleic acid) Range: (3,0 – 60,0) mg/kg of food simulant High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis)	CEN/TS 13130-24:2005
	Specific migration of maleic anhydride (as maleic acid) (calculated)	

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Subject of testing/product	Type of activity/ tested qualities/method	Reference document
<b>Plastic materials and articles intended to come into contact with food</b> <b>Rubber materials and articles intended to come into contact with food</b> <b>Food simulants after migration</b>	Determination of N,N-bis(2-hydroxyethyl) alkil(C8-C18)amine Range: (0,4 - 5) mg/kg of food simulant High performance liquid chromatography method with tandem mass spectrometry (HPLC-MS-MS)	PB-341/LC ed. I of 12.09.2016
	Specific migration of N,N-bis(2-hydroxyethyl) alkil(C8-C18)amine (calculated)	
<b>Plastic materials and articles</b> <b>Fabric materials and articles</b>	Determination of benzene Range: (1,5-25) mg/kg Headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)	PB-380 ed. I of 06.07.2018
<b>Plastic materials and articles intended to come into contact with food</b> <b>Food simulants after migration</b>	Determination of 2,6-di-tert-butyl-p-cresol (BHT) Range: (1-25) mg/kg of food simulant Gas chromatography method with mass spectrometry (GC-MS)	PB-385 ed. I of 26.10.2018
	Specific migration of 2,6-di-tert-butyl-p-cresol (BHT) (calculated)	
<b>Plastic materials and articles intended to come into contact with food</b> <b>Food simulants after migration</b>	Determination of 9,9-bis[methoxymethyl]-9H-fluorene Range: (0,05 – 5,0) mg/kg of food simulant Gas chromatography method with mass spectrometry (GC-MS)	PB-367 ed. II of 21.02.2018
	Specific migration of 9,9-bis[methoxymethyl]-9H-fluorene (calculated)	
	Determination of acetaldehyde Range: (0,5-20) mg/kg of food simulant Headspace gas chromatography method with flame ionization detection (HS-GC-FID)	PB-395 ed. I of 15.05.2019
	Specific migration of acetaldehyde (calculated)	

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Subject of testing/product	Type of activity/ tested qualities/method	Reference document
<b>Plastic materials and articles intended to come into contact with food</b> <b>Food simulants after migration</b>	Determination of 1,3,5-tris (3,5-di-tertbutyl-4-hydroxybenzyl)-1,3,5-triazine-2,4,6(1H, 3H, 5H)-trione Range: (0,5-15) mg/kg of food simulant High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) Specific migration of 1,3,5-tris (3,5-di-tertbutyl-4-hydroxybenzyl)-1,3,5-triazine-2,4,6(1H, 3H, 5H)-trione (calculated)	PB-300 ed. I of 10.08.2019
<b>Plastic materials and articles intended to come into contact with food</b> <b>Food simulants after migration</b>	Overall migration into vegetable oils Range: (2,0 – 100,0) mg/dm <sup>2</sup> Gravimetric method	PN-EN 1186-2:2022-12
<b>Plastic materials and articles</b> <b>Rubber materials and articles</b>	Determination of short-chain chlorinated paraffins (SCCP) Range: (50-2000) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PB-401/GC ed. I of 15.07.2019
<b>Toys, materials for toys, plastics</b>	Determination of formaldehyde in extract Range: (0,5 – 5,0) mg/kg Spectrophotometric method	PN-EN-71-11:2007
<b>Toys, materials for toys made of plastics</b>	Migration of monomers Range: acrylamide (0,01-0,5) mg/l phenol (1,0 -50,0) mg/l bisphenol A (0,01-0,5) mg/l Liquid chromatography method with tandem mass spectrometry and photodiode detection (LC-MS-MS/DAD/UV)	PN-EN 71-11:2007 IW-34/PNF ed. I of 24.04.2017
<b>Toys, materials for toys made of textiles, textiles</b>	Determination of formaldehyde Range: (16 – 3500) mg/kg Spectrophotometric method	PN-EN ISO 14184-1:2011

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Subject of testing/product	Type of activity/ tested qualities/method	Reference document
<b>Electrical and electronic equipment and its polymer, textile, paper and electronic components, the materials used in the manufacture of electrical and electronic equipment and packaging</b>	Determination of elements Range: Al (50 – 3000) mg/kg Sb (5,0 – 3000) mg/kg As (5,0 – 3000) mg/kg Ba (50 – 3000) mg/kg B (50 – 3000) mg/kg Cd (5,0 – 3000) mg/kg Cr <sub>total</sub> (5,0 – 3000) mg/kg Co (5,0 – 3000) mg/kg Cu (50 – 3000) mg/kg Pb (5,0 – 3000) mg/kg Mn (50 – 3000) mg/kg Hg (5,0 – 3000) mg/kg Ni (5,0 – 3000) mg/kg Se (5,0 – 3000) mg/kg Sr (50 – 3000) mg/kg Sn <sub>total</sub> (50 – 3000) mg/kg Zn (50 – 3000) mg/kg Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	PN-EN 62321-4:2014-08 +A1:2017-12 PN-EN 62321-5:2014-08
	Determination of polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) in the solvent extract from material of an object Range: PBB (0,03 – 1,5)% PBDE (0,03 – 1,5)% Gas chromatography method with mass spectrometry (GC-MS)  Polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) content (calculated)	PN-EN 62321-6:2015-10

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Subject of testing/product	Type of activity/ tested qualities/method	Reference document
<b>Plastic materials and articles</b> <b>Paper and cardboard materials and articles</b>	Determination of elements Al (50 – 500) mg/kg Sb (5,0 – 500) mg/kg As (5,0 – 500) mg/kg Ba (50 – 500) mg/kg B (50 – 500) mg/kg Cd (0,5 – 500) mg/kg Cr (total) (2,0 – 500) mg/kg Co (5,0 – 500) mg/kg Cu (50 – 500) mg/kg Pb (2,0 – 500) mg/kg Mn (50 – 500) mg/kg Hg (0,5 – 50) mg/kg Ni (5,0 – 500) mg/kg Se (5,0 – 500) mg/kg Sr (50 – 500) mg/kg Sn (total) (50 – 500) mg/kg Zn (50 – 500) mg/kg Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	PB-233/ICP ed. II of 15.11.2017
<b>Plastic materials and products, multi-layer materials, viscose films</b>	Oxygen permeability Range: (0,005 – 2000) cm <sup>3</sup> /(m <sup>2</sup> ·24/h) Coulometric sensor method	ASTM D 3985-17
<b>Plastic materials and products, multi-layer materials, viscose films</b>	Oxygen permeability Range: (0,005 – 2000) cm <sup>3</sup> /(m <sup>2</sup> ·24/h) Coulometric sensor method	ASTM F 1927-20
<b>Plastic materials and products, multi-layer materials, viscose films</b>	Water vapour permeability Range: (0,005 – 1000) cm <sup>3</sup> /(m <sup>2</sup> ·24/h) Infrared sensor method	ASTM F 1249-20
<b>Plastic: single layer, multi-layer, printed single layer, printed multi-layer materials and articles</b> <b>Paper and board materials and articles</b>	Screening of non-intentionally added substances (NIAS), determination in food simulants: MPPPO (Tenax), 95 % ethanol, 50 % ethanol, 20 % ethanol, 10 % ethanol, 3 % acetic acid Range: (0,01 – 60) mg/kg Liquid chromatography method with Quadrupole Time-of-Flight Mass Spectrometry (LC-QTOF-MS)	PB-502 ed. 3 of 30.10.2023
<b>Toys</b> <b>Plastic materials and articles</b> <b>Paper and cardboard materials and articles</b>	Determination of bisphenols Bisphenol A Bisphenol B Bisphenol F Bisphenol S Range: (0,05 - 30) mg/kg Liquid chromatography method with tandem mass spectrometry (LC-MS-MS)	PB-374 ed. 3 of 16.01.2023
<b>Paper and cardboard materials and articles and water extracts</b>	Determination of glyoxal Range: (12 – 190) mg/kg (0,0019 – 1,9) mg/dm <sup>2</sup> Spectrophotometric method	DIN 54603:2008-08
<b>Paper and board materials and articles and water extracts</b>	Epichlorohydrin hydrolysis products content Range: 1,3-dichloro-2-propanol (1,3-DCP) (1,0 - 25) µg/l 3-monochloro-propane-1,2-diol (3-MCPD) (5,0 - 70) µg/l Gas chromatography method with mass spectrometry (GC-MS)	PB-572 ed 1 z of 29.08.2023

Subject of testing/product	Type of activity/ tested qualities/method	Reference document
<b>Metal materials and articles</b>	Release of elements to food simulant – citric acid 0,5% Range: Mg (0,050 – 1000) mg/kg Al (0,050 – 200) mg/kg Sb (0,005 – 10) mg/kg Co (0,005 – 10) mg/kg Mo (0,005 – 10) mg/kg Cr (0,050 – 100) mg/kg Mn (0,050 – 100) mg/kg Fe (0,050 – 500) mg/kg Ni (0,005 – 10) mg/kg Cu (0,005 – 10) mg/kg Zn (0,050 – 100) mg/kg Ag (0,005 – 10) mg/kg Sn (0,050 – 1000) mg/kg Ti (0,005 – 10) mg/kg V (0,001 – 10) mg/kg Ba (0,050 – 100) mg/kg Be (0,001 – 10) mg/kg Pb (0,005 – 10) mg/kg Li (0,005 – 10) mg/kg Hg (0,001 – 0,005) mg/kg Tl (0,001 – 1,0) mg/kg As (0,001 – 10) mg/kg Cd (0,001 – 10) mg/kg Zr (0,050 – 100) mg/kg  Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	PB-298 ed. 2 of 07.08.2023
<b>Metal materials and articles</b>	Release of elements to food simulant – water (EN 16889) Range: Al (0,050 – 200) mg/kg Sb (0,005 – 10) mg/kg Co (0,005 – 10) mg/kg Mo (0,005 – 10) mg/kg Cr (0,050 – 100) mg/kg Mn (0,050 – 100) mg/kg Fe (0,050 – 500) mg/kg Ni (0,005 – 10) mg/kg Cu (0,005 – 10) mg/kg Zn (0,050 – 100) mg/kg Ag (0,005 – 10) mg/kg Sn (0,050 – 1000) mg/kg Ti (0,005 – 10) mg/kg V (0,001 – 10) mg/kg Ba (0,050 – 100) mg/kg Be (0,001 – 10) mg/kg Pb (0,005 – 10) mg/kg Li (0,005 – 10) mg/kg Hg (0,001 – 0,005) mg/kg Tl (0,001 – 1,0) mg/kg As (0,001 – 10) mg/kg Cd (0,001 – 10) mg/kg Zr (0,050 – 100) mg/kg  Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	PB-298 ed. 2 of 07.08.2023

<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Materials and articles in contact with food and other packaging materials and articles</b> <sup>1)</sup> <b>Food simulants after migration</b> <sup>1)</sup>	Determination of substances <sup>2), 3)</sup> High performance liquid chromatography method with fluorescence detection (HPLC-FLD)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
	Specific migration (calculated)	
<b>Materials and articles in contact with food and other packaging materials and articles</b> <sup>1)</sup> <b>Food simulants after migration</b> <sup>1)</sup>	Overall migration into food simulants <sup>2), 3)</sup> Gravimetric method	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Materials and articles in contact with food and other packaging materials and articles</b> <sup>1)</sup> <b>Food simulants after migration</b> <sup>1)</sup>	Determination of substances <sup>2), 3)</sup> High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
	Specific migration (calculated)	
<b>Materials and articles in contact with food and other packaging materials and articles</b> <sup>1)</sup> <b>Food simulants after migration</b> <sup>1)</sup>	Determination of substances <sup>2), 3)</sup> Headspace gas chromatography method with flame ionization detection (HS-GC-FID), Gas chromatography method with flame ionization detection (GC-FID)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
	Specific migration (calculated)	
<b>Plastic and rubber materials and articles</b> <sup>1)</sup> <b>Paper and cardboard materials and articles</b> <sup>1)</sup>	Determination of polycyclic aromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCB) <sup>2), 3)</sup> Gas chromatography method with mass spectrometry (GC-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Plastic and rubber materials and articles</b> <sup>1)</sup> <b>Paper and cardboard materials and articles</b> <sup>1)</sup> <b>Toys</b> <sup>1)</sup>	Determination of plasticizers <sup>2), 3)</sup> Gas chromatography method with tandem mass spectrometry (GC-MS/MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Plastic and rubber materials and products</b> <sup>1)</sup> <b>Paper and cardboard materials and products</b> <sup>1)</sup> <b>Candles, paraffin, waxes</b>	Determination of volatile organic compounds and organic solvents <sup>2), 3)</sup> Headspace gas chromatography method with flame ionization detection (HS-GC-FID), headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Materials and articles in contact with food and other packaging materials and articles</b> <sup>1)</sup> <b>Food simulants after migration</b> <sup>1)</sup>	Determination of elements <sup>2), 3)</sup> Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
	Specific migration (calculated)	
<b>Toys</b> <sup>1)</sup>	Elements migration <sup>2), 3)</sup> Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	Standardized methods <sup>5)</sup>

<b>Flexible scope of accreditation <sup>1), 2), 3), 4), 5), 6)</sup></b>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Electrical and electronic equipment and its polymer, textile, paper and electronic components, the materials used in the manufacture of electrical and electronic equipment and packaging Toys <sup>1)</sup></b>	Determination of chromium (VI) <sup>3)</sup> High-performance liquid chromatography with ionizing with inductively coupled plasma mass spectrometry method (HPLC-ICP-MS)	Standardized methods <sup>5)</sup>
<b>Toys <sup>1)</sup> Materials and articles in contact with food and other packaging materials and articles and water extracts <sup>1)</sup></b>	Determination of amines <sup>2), 3)</sup> Liquid chromatography method coupled with tandem mass spectrometry (LC-MS-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Textiles and leather materials and articles <sup>1)</sup></b>	Determination of amines <sup>2), 3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS-MS)	In-house test procedures <sup>4)</sup>
<b>Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup> Food simulants after migration <sup>1)</sup></b>	Determination of substances <sup>2), 3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS-MS) Specific migration (calculated)	In-house test procedures <sup>4)</sup>
<b>Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup> Food simulants after migration <sup>1)</sup></b>	Determination of mineral oils (MOSH, MOAH) <sup>2), 3)</sup> Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID) Specific migration (calculated)	PB-396/GC <sup>6)</sup>
<b>Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup> Food simulants after migration <sup>1)</sup></b>	Screening of non-intentionally added substances (NIAS), determination <sup>2), 3)</sup> Gas chromatography method with mass spectrometry detection and flame ionization detector (GC-MS-FID) Specific migration (calculated)	In-house test procedures <sup>4)</sup>
<b>Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup> Food simulants after migration <sup>1)</sup></b>	Determination of substances <sup>2), 3)</sup> Liquid chromatography method with Quadrupole Time-of-Flight Mass Spectrometry (LC-QTOF-MS) Specific migration (calculated)	In-house test procedures <sup>4)</sup>
<b>Plastic materials and articles <sup>1)</sup> Paper and cardboard materials and articles <sup>1)</sup></b>	Determination of mineral oils (MOSH/POSH, MOAH) <sup>2), 3)</sup> Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID)	In-house test procedures <sup>4)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of research within the group of subjects.
- 2) Adding the examined feature within the subject / groups of subjects and methods (research techniques).
- 3) Change in the measuring range of the test method.
- 4) Applying updated and implemented new methods described in-house test procedures.
- 5) Applying updated and implemented new methods described in the standardized methods.
- 6) Applying updated methods described in-house test procedures.

The current "List of testing carried out in the framework of flexible scope" is made available to the public by the accredited body.

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<b>Environmental Analysis Laboratory Gdynia</b> Chwaszczyńska 180, 81-571 Gdynia		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Water, sewage</b>	Phenol index Range: (0,010 – 5,0) mg/l Spectrophotometric method	PN-ISO 6439:1994
	Kjeldahl nitrogen concentration Range: (0,50 – 1000) mg/l Titrimetric method	PN-EN 25663:2001
	Ammonium nitrogen concentration Range: (0,50 – 1000) mg/l Titrimetric method	PN-ISO 5664:2002
	Total nitrogen concentration (calculated)	PB-102 ed. IV of 09.02.2022
	Chromium (VI) content Range: (0,01 – 5,0) mg/kg Spectrophotometric method	NANOCOLOR no. 91825 test Instruction ed. of 03.2021
<b>Water, drinking water, sewage</b>	pH Range: 3,0 – 10,0 Potentiometric method	PN-EN ISO 10523:2012
	Electrical conductivity Range: (10 – 3000) $\mu$ S/cm Conductometric method	PN-EN 27888:1999
	Nitrates concentration Range: (0,20 – 70) mg/INO <sub>3</sub> <sup>-</sup> (0,045 – 15,8) mg/l N-NO <sub>3</sub> Spectrophotometric method	PN-82/C-04576/08
	Nitrites concentration Range: (0,01 – 1,6) mg/l NO <sub>2</sub> <sup>-</sup> (0,003 – 0,48) mg/l N-NO <sub>2</sub> Spectrophotometric method	PN-EN 26777:1999
	Total Suspended solids Range: (2,0–4000) mg/l Gravimetric method	PN-EN 872:2007+Ap1:2007
	Biochemical oxygen demand (BOD <sub>5</sub> ) Range: (1 – 6000) mg/l O <sub>2</sub> Optical method	PN-EN ISO 5815-1:2019-12
	Total dissolved solids Range: (10 – 10000) mg/l Gravimetric method	PN-EN 15216:2022-03
	Content of petroleum ether extractable substances Range: (5 – 1000) mg/l Gravimetric method	PB-196 ed. II of 10.05.2018
	Chloride concentration Range: (5,0 – 10000) mg/l Titrimetric method	PN-ISO 9297:1994
	Phosphate concentration Range: (0,03 – 15,3) mg/l Total phosphorus concentration Range: (0,05 – 5,0) mg/l Spectrophotometric method	PB-127 ed. I of 15.06.2011 based on MERCK 1.14848.0001 test
	Sulphate concentration Range: (5,0 – 250) mg/l Spectrophotometric method	PB-128 ed. I of 15.06.2011 based on the MERCK 1.14548.0001 test
	Free and bound cyanide concentration Range: (0,005 – 0,500) mg/l Spectrophotometric method	PB-129 ed. I of 15.06.2011 based on MERCK 1.09701.0001 test

Subject of testing/product	Type of activity/tested qualities/method	Reference document
Water, drinking water, sewage	Total organic carbon (TOC) Range: (1,50 – 1000) mg/l Infrared spectrometry method	PN-EN 1484:1999
	Anionic detergents concentration (anionic surface acting agents) Range: (0,05 – 50,0) mg/l Spectrophotometric method	PN-EN 903:2002
	Hydrocarbon oil index Range: (0,1-100) mg/l Gas chromatography method with mass spectrometry (GC-MS)	PN-EN ISO 9377-2:2003
	Chemical oxygen demand- Cr Range: (5,00 – 10000) mg/l O <sub>2</sub> Spectrophotometric method	PN-ISO 15705:2005
	Organochlorine pesticides concentration Range: HCB (0,010 - 0,2) µg/l α-HCH (0,010 - 0,2) µg/l β-HCH (0,010 - 0,2) µg/l γ-HCH (0,010 - 0,2) µg/l δ-HCH (0,010 - 0,2) µg/l heptachlor (0,010 - 0,2) µg/l heptachlor epoxide (0,010 - 0,2) µg/l aldrin (0,010 - 0,2) µg/l dieldrin (0,010 - 0,2) µg/l endrin (0,010 - 0,2) µg/l isodrin (0,010 - 0,2) µg/l cis-chlordane (0,010 - 0,2) µg/l trans-chlordane (0,010 - 0,2) µg/l op <sup>1</sup> -DDE (0,010 - 0,2) µg/l pp <sup>1</sup> -DDE (0,010 - 0,2) µg/l op <sup>1</sup> -DDD (0,010 - 0,2) µg/l pp <sup>1</sup> -DDD (0,010 - 0,2) µg/l op <sup>1</sup> -DDT (0,010 - 0,2) µg/l pp <sup>1</sup> -DDT (0,010 - 0,2) µg/l Gas chromatography method with mass spectrometry (GC-MS) Sum of organochlorine pesticides (calculated)	PN-EN ISO 6468:2002
	Anionic detergents concentration (anionic surface acting agents) Range: (0,10 – 20) mg/l Spectrophotometric method	PB-379 ed. I of 10.05.2018 based on MERCK 1.02552.0001 cuvette test
	Non-ionic detergents concentration (non-ionic surface acting agents, non-ionic surfactants) Range: (0,3 – 50) mg/l Spectrophotometric method	PB-477 ed. I of 01.04.2021 based on NANOCOLOR 985047 test
	Sulphides concentration Range: (0,05 – 1,5) mg/l Spectrophotometric method	PB-476 ed. I of 01.04.2021 based on MERCK 1.14779.0001 test
	Formaldehyde concentration Range: (0,1 – 80) mg/l Spectrophotometric method	PB-478 ed. I of 23.06.2021 based on NANOCOLOR 985041 test



Subject of testing/product	Type of activity/ tested qualities/method	Reference document
Water, drinking water	Permanganate index Range: (0,50 – 10) mg/l Titrimetric method	PN-EN ISO 8467:2001
	Ammonium ion concentration Range: (0,06 – 3,86) mg/l Spectrophotometric method	PB-124 ed. I of 15.06.2011 based on MERCK 1.14752.0001 test
	Colour Range: (5 - 70) mg/l Pt Visual method	PN-EN ISO 7887:2012 method D
	Colour Range: (5 – 70) mg/l Pt Spectrophotometric method	PN-EN ISO 7887:2012 method C +Ap1:2015-06
	Turbidity Range: (0,20 - 100) NTU Nephelometric method	PN-EN ISO 7027-1:2016-09
	Summary concentration of calcium and magnesium Total hardness as CaCO <sub>3</sub> Range: (5,0 - 500) mg/l Titrimetric method	PN-ISO 6059:1999
	Total alkalinity Range: (0,40 – 20) mmol/l Bicarbonates Range: (24,4 – 1220) mg/l HCO <sub>3</sub> <sup>-</sup> Titrimetric method	PN-EN ISO 99631:2001 +Ap1:2004
	Bromate concentration Range: (3 - 20) µg/l Ion chromatography (IC) method	PN-EN ISO 11206:2013-07
	Acrylamide concentration Range: (0,05 – 5,0) µg/l High-performance liquid chromatography method coupled with tandem mass spectrometry (LCMS/MS)	PB-403 ed. I of 25.06.2020
	Organophosphorus pesticides concentration: Azinphos-ethyl, Chlorfenvinphos, Bromophos-ethyl, Bifenthrin, Azinphos-methyl, Chlorpyrifos-ethyl, Chlorpyrifos-methyl, Cyfluthrin, Cypermethrin, Deltamethrin, Demeton-S-methyl, Diazinon, Diflufenican, Dimethoate, Ethion, Ethoprophos, Fenitrothion I, Fenpropathrin, Fensulfothion, Fenthion, Fenvalerate, Fluopicolide, Phorate, Phosalone, Phosmet, Captan, Carbophenothion, lambdaCyhalothrin, Malaoson, Malathion, Mefenpyr-diethyl, Mecarbam, Methidathion, Metribuzin, Mevinphos, Oxyfluorfen, Parathionethyl, Parathion-methyl, Permethrin, Pirimiphos-ethyl, Pirimiphos-methyl, Procymidone, Propetamphos, Prothiofos, Pyrazophos, Triadimefon, Triadimenol, Triazophos, Trifloxystrobin Range: (0,05– 0,5) µg/l Gas chromatography method with mass spectrometry (GC-MS) Sum of organophosphorus pesticides (calculated)	PN-EN 12918:2004

Subject of testing/product	Type of activity/tested qualities/method	Reference document
Sewage	Suspended matters suspension Range: (1,0 -100) ml/l Volumetric method	PN-72/C-04559/03
Waste <sup>o)</sup> group code: 02 02 04, 02 03 05, 03 01 82, 04 02 09, 04 02 21, 10 01 01, 10 12 08, 10 12 13, 17 01 01, 17 01 06*, 17 01 07, 17 01 80, 17 02 03, 17 03 80, 17 05 03*, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08, 17 08 02, 17 09 04, 19 01 11*, 19 01 12, 19 08 01, 19 08 02, 19 09 02, 19 12 09	Concentration and content of total organic carbon (TOC) / dissolved organic carbon (DOC) Range: (1,50 – 1000) mg/l (15,0 – 10000) mg/kg Infrared spectrometry method IR	PN-EN 12457-4:2006 PN-EN 1484:1999
Waste <sup>o)</sup> group code: 02 02 04, 02 03 05, 03 01 82, 04 02 09, 04 02 21, 10 01 01, 10 12 08, 10 12 13, 17 01 01, 17 01 06*, 17 01 07, 17 01 80, 17 02 03, 17 03 80, 17 05 03*, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08, 17 08 02, 17 09 04, 19 01 11*, 19 01 12, 19 08 01, 19 08 02, 19 09 02, 19 12 09	pH Range: 3,0 – 10,0 Potentiometric method	PN-EN 12457-4:2006 PN-EN ISO 10523:2012
Waste <sup>o)</sup> group code: 02 02 04, 02 03 05, 03 01 82, 04 02 09, 04 02 21, 10 01 01, 10 12 08, 10 12 13, 17 01 01, 17 01 06*, 17 01 07, 17 01 80, 17 02 03, 17 03 80, 17 05 03*, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08, 17 08 02, 17 09 04, 19 01 11*, 19 01 12, 19 08 01, 19 08 02, 19 09 02, 19 12 09	General dissolved substances concentration Range: (10,0 – 10000) mg/l Total dissolved solid– TDS content Range: (100 – 100000) mg/kg Gravimetric method	PN-EN 12457-4:2006 PN-EN 15216:2022-03
	Electrical conductivity Range: (10 – 10000) µS/cm Conductometric method	PN-EN 12457-4:2006 PN-EN 27888:1999
	Sulphate concentration and content Range: (5,0 – 250) mg/l (50 – 2500) mg/kg Spectrophotometric method	PN-EN 12457-4:2006 PB-128 ed. I of 15.06.2011
	Chloride concentration and content Range: (5,0 – 10000) mg/l (50,0 – 100000) mg/kg Titrimetric method	PN-EN 12457-4:2006 PN-ISO 9297:1994

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Aqueous extract from waste prepared in Environmental Analysis Laboratory Małaszewicze DAB-11</b> <b>And aqueous extract 19 08 01, 19 08 02, 19 08 05, 17 01 82, 17 03 80</b>	Concentration of total organic carbon (TOC) / dissolved organic carbon (DOC) Range: (1,50 – 1000) mg/l Infrared spectrometry method IR Content of total organic carbon (TOC) / dissolved organic carbon (DOC) (calculated)	PN-EN 1484:1999
	pH Range: 3,0 – 10,0 Potentiometric method	PN-EN ISO 10523:2012
	General dissolved substances concentration Range: (10,0 – 10000) mg/l Gravimetric method Total dissolved solid– TDS content (calculated)	PN-EN 15216:2022-03
	Electrical conductivity Range: (10 – 10000) $\mu$ S/cm Conductometric method	PN-EN 27888:1999
	Sulphate concentration Range: (5,0 – 250) mg/l Spectrophotometric method Sulphate content (calculated)	PB-128 ed. I of 15.06.2011
	Chloride concentration Range: (5,0 – 10000) mg/l Titrimetric method Chloride content (calculated)	PN-ISO 9297:1994
<b>Sewage sludge <sup>o)</sup></b> <b>group code: 19 08 05</b>	pH - in H <sub>2</sub> O Range: 3,0 – 10,0 Potentiometric method	PN-EN ISO 10390:2022-09
<b>Mineral soil</b>	Assimilated phosphorus as P <sub>2</sub> O <sub>5</sub> content Range: (1,0 – 50) mg/100 g Spectrophotometric method	PN-R-04023:1996
<b>Soil, ground</b>	pH - in H <sub>2</sub> O pH - in KCl Range: 3,0 – 10,0 Potentiometric method	PN-EN ISO 10390:2022-09
<b>Soil, ground</b>	Phenols and cresols content Range: phenol (0,05 – 100) mg/kg o-cresol (0,05 – 100) mg/kg m-cresol (0,05 – 100) mg/kg p-cresol (0,05 – 100) mg/kg sum of cresols (0,15 – 300) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	ISO TS 17182:2014

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Soil, ground	Granulometric composition in particle size range (0,063 – 20) mm by fraction Range: (0,5 – 99,5) % Sieve method	PKN-CEN ISO/TS 17892-4:2009 PK-EN ISO 17892-4:2017-01
	Granulometric composition in particle size range (0,002 – 0,063) mm by fraction Range: (0,5 – 99,5) % Areometric method	PKN-CEN ISO/TS 17892-4:2009 PK-EN ISO 17892-4:2017-01
	Granulometric composition in particle size range (0,0002 - 2,000) mm by fraction range: (0,5 – 99,5) % Laser diffraction method	PN-Z-19012:2020-02
	Filtration factor – water permeable Range: (0,01 d <sub>20</sub> < 2 mm) (calculated based on the grading curve - the USBCS formula)	PB-483 ed. II of 23.05.2022
	Filtration factor – water permeable Range: (1,0·10 <sup>-11</sup> – 1,0·10 <sup>-5</sup> ) m/s Hydraulic gradient method	PN-EN ISO 17892-11:2019-05
	Organochlorine pesticides concentration Range: aldrin (0,002– 5,0) mg/kg dieldrin (0,002 – 5,0) mg/kg endrin (0,002 – 5,0) mg/kg α-HCH (0,002 – 5,0) mg/kg β-HCH (0,002 – 5,0) mg/kg γ-HCH, lindane 0,001 – 5,0) mg/kg o,p-DDT (0,002 – 5,0) mg/kg o,p-DDE (0,002 – 5,0) mg/kg o,p-DDD (0,002 – 5,0) mg/kg p,p-DDT (0,002 – 5,0) mg/kg p,p-DDE (0,002 – 5,0) mg/kg p,p-DDD (0,002 – 5,0) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PN-ISO 10382:2007
	Polychlorinated biphenyls content Range: PCB 28 (0,02 – 5,0) mg/kg PCB 52 (0,02 – 5,0) mg/kg PCB 101 (0,02 – 5,0) mg/kg PCB118 (0,02 – 5,0) mg/kg PCB 138 (0,02 – 5,0) mg/kg PCB 153 (0,02 – 5,0) mg/kg PCB 180 (0,02 – 5,0) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PN-ISO 10382:2007

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Soil, ground Sewage sludge <sup>o)</sup> group code: 19 08 05</b>	Dry mass content / water content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15934:2013-02 method A
<b>Soil, Sewage sludge <sup>o)</sup> group code: 19 08 05 Waste <sup>o)</sup> group code: 02 02 04, 02 03 05, 03 01 82, 04 02 09, 04 02 21, 10 01 01, 10 12 08, 10 12 13, 17 01 01, 17 01 06*, 17 01 07, 17 01 80, 17 02 03, 17 03 80, 17 05 03*, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08, 17 08 02, 17 09 04, 19 01 11*, 19 01 12, 19 08 01, 19 08 02, 19 09 02, 19 12 09</b>	Dry mass content / water content Range: (0,5 – 99,5) % Gravimetric method	PN-EN 12880:2004
<b>Soil, Sewage sludge <sup>o)</sup> group code: 19 08 05</b>	Ammonium nitrogen content Range: (0,05 – 2,00) % Titrimetric method	PB -178 ed. I of 14.08.2012
	Kjeldahl nitrogen content Range: (0,05 – 8,00) % Titrimetric method	PN-EN 13342:2002
<b>Soil, Sewage sludge <sup>o)</sup> group code: 19 08 05 Waste <sup>o)</sup> group code: 17 05 03*, 17 05 04, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08</b>	Polychlorinated biphenyls content (PCB) Range: PCB 28 (1 – 1000) µg/kg PCB 52 (1 – 1000) µg/kg PCB 101 (1 – 1000) µg/kg PCB 118 (1 – 1000) µg/kg PCB 138 (1 – 1000) µg/kg PCB 153 (1 – 1000) µg/kg PCB 180 (1 – 1000) µg/kg Gas chromatography method with mass spectrometry (GC-MS)	PB-194/GC ed. II of 09.05.2013
<b>Sewage sludge <sup>o)</sup> group code:19 08 05 Waste <sup>o)</sup> group code: 17 05 03*, 17 05 04, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08</b>	Polycyclic aromatic hydrocarbons content (PAH) Range: Naphthalene (0,01 – 100) mg/kg Acenaphthylene (0,01 – 100) mg/kg Acenaphthene (0,01 – 100) mg/kg Fluorene (0,01 – 100) mg/kg Phenanthrene (0,01 – 100) mg/kg Anthracene (0,01 – 100) mg/kg Fluoranthene (0,01 – 100) mg/kg Pyrene (0,01 – 100) mg/kg Benzo(a)anthracene (0,01 – 100) mg/kg Chrysene (0,01 – 100) mg/kg Benzo(b)fluoranthene (0,01 – 100) mg/kg Benzo(a)fluoranthene (0,01 – 100) mg/kg Benzo(k)fluoranthene (0,01 – 100) mg/kg Benzo(a)pyrene (0,002 – 100) mg/kg Indeno(1,2,3,-cd)pyrene (0,01 – 100)mg/kg Dibenzo(a,h)anthracene (0,01– 100) mg/kg Benzo(ghi)perylene (0,01 – 100) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PB-194/GC ed. II of 09.05.2013

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Soil, ground Sewage sludge <sup>o)</sup> group code:19 08 05</b>	Loss on ignition of dry mass (LOI) / Organic compounds Range: (0,5 – 99,5) % Gravimetric method	PN-EN 15935:2022-01
<b>Waste <sup>o)</sup> group code: 19 05 02, 19 05 03, 19 06 03, 19 06 04, 19 06 05, 19 06 06, 19 06 99</b>	Loss on ignition of dry mass (LOI) / Organic compounds Range: (0,5 – 99,5) % Gravimetric method	PN-EN 12879:2004
<b>Soil, Sewage sludge <sup>o)</sup> group code:19 08 05 Waste <sup>o)</sup> group code: 17 05 03*, 17 05 04, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08</b>	Hydrocarbon oil index, including sum of C12-C35 hydrocarbons Range: (30-3000) mg/kg of dry matter Gas chromatography method with mass spectrometry (GC-MS)	PN-EN ISO 16703:2011
<b>Sewage sludge <sup>o)</sup> group code:19 08 05 Waste <sup>o)</sup> group code: 17 05 03*, 17 05 04, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08</b>	Volatile aromatic hydrocarbons content /BTEX/ Range: benzene (0,020–250) mg/kg of dry matter ethylbenzene (0,020-250) mg/kg of dry matter toluene (0,020 – 250) mg/kg of dry matter total xylenes (0,040 – 750) mg/kg of dry matter styrene (0,020 – 250) mg/kg of dry matter Gas chromatography method with mass spectrometry (GC-MS)	PB-190/GC ed. III of 20.10.2014
<b>Plant cultivation aids: - soil improvement agents (soil amendments)</b>	Dry mass content Range: (1,0 – 99,0) % Gravimetric method Water content (calculated)	PN-EN 15934:2013-02 method A
	Loss on ignition of dry mass (LOI) / Organic compounds content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15935:2022-01
	pH Range: (4,0 – 10,0) Potentiometric method	PN-EN 12176:2004
	Kjeldahl nitrogen content Range: (0,5 – 8,00) % Titrimetric method	PN-EN 13342:2002

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Water, drinking water, sewage</b>	Concentration of halogenated organic compounds <sup>1), 2)</sup> Purge&Trap gas chromatography method with mass spectrometry detection (P&T-GC-MS)	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Anions concentration <sup>1), 2)</sup> Ion chromatography (IC) method Sum (calculated)	Standardized methods <sup>4)</sup>
<b>Water, drinking water</b>	Cations concentration <sup>1), 2)</sup> Ion chromatography (IC) method Sum (calculated)	Standardized methods <sup>4)</sup>
<b>Soil, ground</b>	Content: - volatile aromatic hydrocarbons (BTEX) <sup>1), 2)</sup> - aliphatic and aromatic hydrocarbons C <sub>6</sub> -C <sub>12</sub> <sup>2)</sup> - chlorinated aliphatic hydrocarbons <sup>2)</sup> Headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)	Standardized methods <sup>4)</sup>
	Polycyclic aromatic hydrocarbons content (WWA) <sup>1), 2)</sup> Gas chromatography method with mass spectrometry (GC-MS)	

<sup>0)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the examined feature within the subject / groups of subjects and methods (research techniques).
- 2) Changing in the measuring range of the test method.
- 3) Applying updated and implemented new methods described in-house test procedures.
- 4) Applying updated and implemented new methods described in the standardized methods.

The current "List of testing carried out in the framework of flexible scope" is made available to the public by the accredited body.

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<p>Testing carried out for the purposes of the regulated area:            -Regulation of the Minister of Economy of 16 July 2015 on the acceptance of waste at landfills (Journal of Laws of 2015, item 1277)            -Regulation of the Minister of Environment of 11 May 2015 on waste recovery outside installations and devices (Journal of Laws of 2015, item 796)</p>		
<p><b>Waste</b> <sup>DAB-11:</sup>            – <b>Mineral deposits and waste (I);</b>            – <b>Construction waste (III);</b>            – <b>Slag, ash and furnace dust (XI)</b></p>	<p>Hydrocarbons content:            Range:            C10 – C40 (30 – 3000) mg/kg            C12 – C35 (20 – 2000) mg/kg            Gas chromatography method with flame ionization detection (GC-FID)</p>	<p>PN-EN 14039:2008</p>
	<p>Aliphatic and aromatic hydrocarbons content            C<sub>6</sub>-C<sub>12</sub> (petroleum hydrocarbons)            Range: (1,0 – 1000) mg/kg            Headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)</p>	<p>PN-EN ISO 22155:2016-07</p>
	<p>Volatile aromatic hydrocarbons content /BTEX/            Range:            benzene (0,10 – 20) mg/kg            ethylbenzene (0,10 – 20) mg/kg            toluene (0,10 – 20) mg/kg            o-xylene (0,10 – 20) mg/kg            Total xylenes m,p- xylene (0,20 – 40) mg/kg            Headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)            Total xylenes (calculated)            Sum of BTEX (calculated)</p>	<p>PN-EN ISO 22155:2016-07</p>

<sup>DAB-11)</sup> Waste codes according to Minister of Climate Regulation on the waste catalogue for the validation group are given in Annex No. 1 to DAB-11.

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<b>Environmental Analysis Laboratory Małaszewicze Kolejarzy 6, 21-540 Małaszewicze</b>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Sewage sludge</b>	Dry mass content / water content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15934:2013-02 method A
	Loss on ignition of dry mass (LOI) / Organic compounds content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15935:2022-01
<b>Soil</b>	Dry mass content / water content Range: (1,0 – 99,0) % Gravimetric method	PN-ISO 11465:1999
	Loss on ignition of dry mass (LOI) / Organic compounds content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15935:2022-01
	Total organic carbon (TOC) content Range: (0,50 – 60) % High-temperature combustion method with IR detection	PN-EN 10694:2002
<b>Solid fuels: recovered fuel – alternative fuel Solid recovered fuel (SRF)</b>	Moisture content in the analytical sample Range: (0,5 – 15,0) % Gravimetric method	PN-EN ISO 21660-3:2021-08
	Total moisture content Range: (1,0 – 80,0) % Gravimetric method	CEN/TS 15414-1:2014
	Ash content Range: (1,0 – 40,0) % Gravimetric method	PN-EN ISO 21656:2021-08 method A
	Sulphur content Range: (0,10 – 2,00) % High temperature combustion method with IR detection	PN-EN ISO 21663:2021-06
	Carbon content Range: (20,0 – 80,0) % High temperature combustion method with IR detection	PN-EN ISO 21663:2021-06
	Gross calorific value Range: (7000 – 40000) kJ/kg Calorimetric method	PN-EN ISO 21654:2021-12
	Net calorific value (calculated)	
	Chlorine content Range: (0,10 – 2,00) % Titration method	PN-EN 15408:2011 PN-ISO 9297:1994
<b>Solid fuels: solid biomass – solid biofuels</b>	Moisture content in analytical sample Range: (0,50 – 20,0) % Gravimetric method	PN-EN ISO 18134-3:2015-11
	Total moisture content Range: (1,0 – 80,0) % Gravimetric method	PN-EN ISO 18134-2:2017-03

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Solid fuels: solid biomass – solid biofuels</b>	Ash content Range: (0,5 – 45,0) % Gravimetric method	PN-EN ISO 18122:2016-01
	Sulphur content Range: (0,02 – 0,50) % High-temperature combustion method with IR detection	PN-EN ISO 16994:2016-10 p. 4.4
	Carbon content Range: (20,0 – 60,0) % High-temperature combustion method with IR detection	PN-EN ISO 16948:2015-07
	Gross calorific value Range: (5000 – 25000) kJ/kg Calorimetric method	PN-EN ISO 18125:2017-07
	Net calorific value (calculated)	
<b>Flexible scope of accreditation <sup>1, 2)</sup></b>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Waste <sup>1) 0)</sup>group code: 03 03, 10 01, 10 12, 17 05, 17 06, 17 09, 19 01, 19 05, 19 06, 19 08, 19 09, 19 12, 20 01, 20 02, 20 03</b>	Loss on ignition of dry mass (LOI) / Organic compounds content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15935 <sup>2)</sup>
	Gross calorific value Range: (4000 - 30000) kJ/kg Calorimetric method	PN-EN 21654 <sup>2)</sup>
<b>Waste <sup>1) 0)</sup>group code: 03 03, 10 01, 10 12, 17 05, 17 06, 17 09, 19 01, 19 05, 19 06, 19 08, 19 09, 19 12, 20 01, 20 02, 20 03</b>  <b>Sewage sludge</b>	Total organic carbon (TOC) content Range: (0,50 – 60) % High-temperature combustion method with IR detection	PN-EN 15936 <sup>2)</sup>

<sup>0)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of research within the group of subjects.
- 2) Applying updated methods described in the standardized methods

The current "List of testing carried out in the framework of flexible scope" is made available to the public by the accredited body.

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<p><i>Testing carried out for the purposes of the regulated area:</i></p> <p>- Regulation of the Minister of Economy of 16 July 2015 on the acceptance of waste at landfills (Journal of Laws 2015, item 1277)</p>		
<p><b>Waste <sup>o)</sup> group code:</b> <b>17 03 80</b></p> <p><b>Waste <sup>DAB-11)</sup>:</b></p> <p><b>-Sediments and mineral wastes (I);</b>  <b>-Construction waste (III);</b>  <b>-Waste from waste treatment (VI);</b>  <b>- Sediments from industrial processes (VII);</b>  <b>-Sewage sludge (IX);</b>  <b>-Slags, ashes and furnace dust (XI);</b>  <b>-Plastics (XXV);</b>  <b>-Wood (XXVI);</b>  <b>-Leather and textiles (XXVII);</b>  <b>-Other municipal waste, including mixed waste (XXVIII)</b>  <b>- Other municipal waste and waste derived from municipal waste, including mixed waste, and other waste from sewage treatment and water treatment (XXVIII)</b></p>	<p>Sulphate concentration and content            Range: (10 – 5000) mg/l            (100 – 50000) mg/kg            Gravimetric method</p>	<p>PN-EN 12457-4:2006            PN-ISO 9280:2002</p>
	<p>Fluoride concentration and content            Range: (0,10 – 10) mg/l            (1,0 – 100) mg/kg            Potentiometric method</p>	<p>PN-EN 12457-4:2006            PN-78/C-04588/03</p>
	<p>Chloride concentration and content            Range: (5 – 10000) mg/l            (50 – 100000) mg/kg            Titrimetric method</p>	<p>PN-EN 12457-4:2006            PN-ISO 9297:1994</p>
	<p>General dissolved substances concentration            Range: (100 – 10000) mg/l            Total dissolved solid – TDS            Range: (1000 – 100000) mg/kg            Gravimetric method</p>	<p>PN-EN 12457-4:2006            PN-EN 15216:2022-03</p>
	<p>Electrical conductivity            Range: (10 – 10000) µS/cm            Conductometric method</p>	<p>PN-EN 12457-4:2006            PN-EN 27888:1999</p>
	<p>pH            Range: 3,0 – 12,0            Potentiometric method</p>	<p>PN-EN 12457-4:2006            PN-EN ISO 10523:2012</p>
	<p>Dry residue/water content            Range: (1,0 – 99,0) %            Gravimetric method</p>	<p>PN-EN 15934:2013-02 method A</p>

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

<sup>DAB-11)</sup> Waste codes according to Minister of Climate Regulation on the waste catalogue for the validation group are given in Annex No. 1 to DAB-11.

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<b>Environmental Analysis Laboratory Zgierz</b> ul. Aleksandrowska 61A, 95-100 Zgierz		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Water</b> <b>Drinking water</b> <b>Sewage</b>	pH Range: 2,0 – 10,0 Potentiometric method	PN-EN ISO 10523:2012
	Electrical conductivity Range: (10 – 3000) µS/cm Conductometric method	PN-EN 27888:1999
	Nitrates concentration Range: (0,3 – 60) mg/l Nitrate nitrogen concentration Range: (0,068 – 13,5) mg/l Spectrophotometric method	PB-433 ed. I of. 01.06.2021 based on HACH 8039 method
	Nitrites concentration Range: (0,050 – 1,00) mg/l Nitrite nitrogen concentration Range: (0,02 – 0,300) mg/l Spectrophotometric method	PB-461 ed. I of 01.06.2021 based on HACH 8507 method
	Sulphate (VI) concentration Range: (2 – 300) mg/l Spectrophotometric method	PB-432 ed. I of 01.06.2021 based on HACH 8051 method
	Fluoride concentration Range: (0,10 – 10) mg/l Potentiometric method	PN-78/C-04588/03
	Total nitrogen concentration (calculated)	PB-463 ed. II of 23.07.2021
	Total alkalinity Range: (0,40 – 20) mmol/l Titrimetric method Bicarbonate concentration (calculated)	PN-EN ISO 9963-1:2001+Ap1:2004
	Chloride concentration Range: (5,00 – 10000) mg/l Titrimetric method	PN-ISO 9297:1994
	Volatile organic compounds concentration Range: chloroform (1,0 – 200) µg/l bromodichloromethane (1,0 – 200) µg/l dibromochloromethane (1,0 – 200) µg/l bromoform (1,0 – 200) µg/l tetrachloromethane (carbon tetrachloride) (0,5 – 25) µg/l 1,2-dichloroethane (1,0 – 200) µg/l trichloroethylene (1,0 – 200) µg/l tetrachloroethylene (1,0 – 200) µg/l hexachlorobutadiene (0,1 – 12,5) µg/l vinyl chloride (0,1 – 12,5) µg/l benzene (0,5 – 100) µg/l toluene (0,5 – 100) µg/l ethylbenzene (1,0 – 200) µg/l (m + p)-xylene (0,5 – 200) µg/l o-xylene (0,5 – 200) µg/l Purge & Trap gas chromatography method with mass spectrometry detection (P&T-GC-MS)  Sum of volatile organic compounds (calculated)	PN-EN ISO 15680:2008

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Water</b> <b>Drinking water</b>	Colour Range: (5 – 70) mg/l Pt Spectrophotometric method	PN-EN ISO 7887:2012 method C; PN-EN ISO 7887:2012/Ap1:2015-06
	Turbidity Range: (0,20 – 800) NTU Nephelometric method	PN-EN ISO 7027-1:2016-09
	Iron concentration Range: (0,02 – 3,00) mg/l Spectrophotometric method	PB-464 ed. I of 01.06.2021 based on HACH 8008 method
	Manganese concentration Range: (0,006 – 0,70) mg/l Spectrophotometric method	PB-465 ed. I of 01.06.2021 based on HACH 8149 method
	Aluminium concentration Range: (0,02 – 0,50) mg/l Spectrophotometric method	PB-466 ed. I of 01.06.2021 based on HACH LCK 301 method
	Sum of calcium and magnesium content Total hardness Range: (0,05 – 5,0) mmol/l (5 – 500) mg/l CaCO <sub>3</sub> Titrimetric method	PN-ISO 6059:1999
	Ammonium ion concentration Range: (0,05 – 1,0) mg/l Spectrophotometric method	PB-462 ed. I of 01.06.2021 based on HACH 8155 method
	Permanganate index Range: (0,50 – 10) mg/l O <sub>2</sub> Titrimetric method	PN-EN ISO 8467:2001
<b>Water</b> <b>Sewage</b>	Kjeldahl nitrogen concentration Range: (0,50 – 1000) mg/l Titrimetric method	PN-EN 25663:2001
	Ammonium nitrogen concentration Range: (0,50 – 1000) mg/l Titrimetric method	PN-ISO 5664:2002
	Total phosphorus concentration Range: (0,020 – 50,0) mg/l Spectrophotometric method	PN-EN ISO 6878:2006 p.7 + Ap1:2010+Ap2:2010
	Total Suspended solids Range: (2,0 – 4000) mg/l Gravimetric method	PN-EN 872:2007+Ap1:2007
	Chemical oxygen demand-Cr Range: (5,00 – 10000) mg/l O <sub>2</sub> Spectrophotometric method	PN-ISO 15705:2005
	Biochemical oxygen demand (BOD <sub>5</sub> ) Range: (1 – 6000) mg/l O <sub>2</sub> Optical method	PN-EN ISO 5815-1:2019-12
	Total dissolved solids Range: (10 – 10000) mg/l Gravimetric method	PN-EN 15216:2022-03
	Dry residue Residue on ignition Range: (10 – 10000) mg/l Gravimetric method Ignition loss (calculated)	PN-78/C-04541

Subject of testing/product	Type of activity/tested qualities/method	Reference document
Sewage	Sulphate (VI) concentration Range: (10 – 5000) mg/l Gravimetric method	PN-ISO 9280:2002
	Suspended matters suspension Range: (5 -100) ml/l Volumetric method	PN-72/C-04559/03

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<b>Sampling Section</b> Chwaszczyńska 180, 81-571 Gdynia		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Water</b> <b>Surface waters</b>	Sampling for microbiological analysis	PN-EN ISO 19458:2007
<b>Air</b>	Air sampling for microbiological analysis Sedimentation and collision (impact) method	PB-250 ed. III of 30.03.2020
<b>Drinking water</b>	Water sampling for chemical and physical analysis Temperature Range: (4,0-50,0) °C	PN-ISO 5667-5:2017-10 PN-77/C-04584
<b>Underground water</b>	Sampling for chemical and physical analysis Temperature Range: (4,0-50,0) °C	PN-ISO 5667-11:2017-10 PN-77/C-04584
<b>Surface water</b>	Sampling for chemical and physical analysis	PN-ISO 5667-6:2016-12 except p.7.5;7.6
	Temperature Range: (4,0-50,0) °C	PN-77/C-04584
<b>Sewage</b>	Sampling for chemical and physical analysis Manual method Automatic method Temperature of taken sewage sample Range: (4,0-50,0) °C	PN-ISO 5667-10:2021-11 PN-77/C-04584
	Total chlorine concentration Range: (0,05 – 2,0) mg/l Spectrophotometric method	PB-480 ed. I of 24.06.2021 based on HACH 8167 method
	Free chlorine concentration Range: (0,05 – 2,0) mg/l Spectrophotometric method	PB-480 ed. I of 24.06.2021 based on HACH 8021 method
<b>Waste <sup>o)</sup> group code:</b> <b>19 08 01, 19 08 02, 19 08 05,</b>	Sampling for chemical and physical analysis	PB-206 ed. II of 11.04.2019
<b>Sewage sludge</b> <b>Waste <sup>o)</sup> group code: 19 08 05</b>	Sampling for chemical and physical analysis	PN-ISO 5667-13:2011
<b>Sewage sludge</b>	Sampling for microbiological and biological analysis	PB-471 ed. 1 of 26.11.2021
<b>Soil</b>	Sampling for chemical and physical analysis	PN-R-04031:1997 PN-ISO 10381-4:2007 PN-ISO 10381-5:2009
<b>Ground</b>	Sampling for chemical and physical analysis	PN-ISO 10381-4:2007 PN-ISO 10381-5:2009
<b>Agricultural products</b>	Sampling for testing on presence of plant protection products	Ministry of Agriculture and Rural Development Regulation of 3 September 2020 (Journal of Laws No. 2020, item 1589)
<b>Environmental samples from food and cosmetics production areas as well as food and cosmetics trade</b>	Sampling from the surface using contact plates and swabs for microbiological analysis	PN-EN ISO 18593:2018-08
<b>Water on the swimming pools</b>	Sampling for microbiological, chemical and physical analysis Temperature Range: (4,0 - 50,0) °C	PB-378 ed. II of 08.01.2021 PN-77/C-04584

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Water (including water on the swimming pools)</b>	Oxidant-reducing potential (Redox) vs. Ag/AgCl 3,5 mol KCl Range: (200 - 1000) mV Potentiometric method	PB-377 ed. II of 30.03.2020
	Chloramines concentration Range: (0,05 – 4,0) mg/l Spectrophotometric method	PB-469 ed. I of 08.01.2021 based on HACH no. 10200 method
	Chloramines concentration Range: (0,05 – 4,0) mg/l Spectrophotometric method	PB-358 ed. III of 30.03.2020 based on Palintest method
	Total chlorine concentration Range (0,05-5,0) mg/l Colorimetric method	
	Combined chlorine concentration (calculated)	
	Ozone concentration Range: (0,03 – 0,75) mg/l Spectrophotometric method	PB-468 ed. I of 03.06.2021 based on HACH no. 8311 method
<b>Water, sewage</b>	pH Range: 4,0-10,0 Potentiometric method	PN-EN ISO 10523:2012
<b>Water Drinking water Sewage</b>	Dissolved oxygen concentration Range: (0,2 – 15) mg/l O <sub>2</sub> Optical method	ISO 17289:2014

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<p><i>Sampling carried out for the purposes of the regulated area:</i></p> <ul style="list-style-type: none"> <li>- Regulation of the Minister of Economy of 16 July 2015 on the acceptance of waste at landfills (<i>Journal of Laws of 2015, item 1277</i>)</li> <li>- Regulation of the Minister of the Environment of 6 February 2015 on municipal sewage sludge (<i>Journal of Laws of 2015, item 257</i>)</li> </ul>		
<p><b>Waste</b><sup>DAB-11</sup>:</p> <ul style="list-style-type: none"> <li>-Sediments and mineral wastes (I);</li> <li>-Construction waste (III);</li> <li>-Waste from waste treatment (VI);</li> <li>-Sewage sludge (IX);</li> <li>-Slags, ashes and furnace dust (XI);</li> <li>-Other municipal waste, including mixed waste (XXVIII)</li> <li>-Sediments from industrial processes (VII)</li> <li>-Waste from the processing of petroleum, natural gas and coal (XXI)</li> <li>-Plastics (XXV);</li> <li>-Wood (XXVI);</li> <li>-Leather and textiles (XXVII)</li> </ul>	<p>Sampling for chemical and physical analysis</p>	<p>PB-206, ed. II of 11.04.2019</p>

<sup>DAB-11</sup>) Waste codes according to Minister of Climate Regulation on the waste catalogue for the validation group are given in Annex No. 1 to DAB-11.

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<b>Sample Homogenization and Physical Analysis Section</b> Chwaszczyńska 180, 81-571 Gdynia		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Oilseeds</b>	Impurities content Range: (0,1 – 20) % Gravimetric method	PN-EN ISO 658:2004 ISO 658:2002
<b>Fish and fishery products and seafood</b>	Glaze content Range: (5,0 – 45,0) % (m/m) Gravimetric method	CODEX STAN 165-1989 (Rev. 1-1995) PB-281 ed. IV of 11.01.2021
<b>Cereals and cereal products</b>	Gluten content Range: (15 – 37) % Gravimetric method	PN-77/A-74041 p. 2.5.2.
<b>Cereals</b>	Bulk density (mass per hectolitre) Range: (35 – 90) kg/hl Gravimetric method	PN-EN ISO 7971-3:2019
<b>Canned meat</b>	Tightness Vacuum method Visual method	PN-A-82055-4:1997+Az1:2002
<b>Canned meat</b>	Content of melt fat and jelly Range: (1,0 – 25,0) % Gravimetric method	PN-A-82056:1985 p. 2.3.8
<b>Canned vegetables, fruit, meat and vegetable</b>	Tightness Vacuum method	PN-A-75052-02:1990
<b>Tea and coffee, Food concentrates, Meat and meat products, Milk and dairy products, Fruits, vegetables, fruit and vegetable products and vegetable with meat products, Fish and fishery products and seafood, Sweets and sugar confectionery, Herbal raw materials and products, spices, Foodstuffs for particular nutritional uses, Animal and vegetable fats and oils, Cereals and cereal products, Frozen products, Ready-made culinary products, Food additives, Products used in animal nutrition</b>	Weight Range: (1,0 – 5000) g Gravimetric method	PB-281 ed. IV of 11.01.2021
<b>Dietary supplements</b>	Weight Range: (0,15 – 100) g Gravimetric method	PB-281 ed IV of 11.01.2021
<b>Canned meat</b>	Weight Range: (50,0 – 5000) g Gravimetric method	PN-A-82056:1985 p. 2.3.5
<b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b>	Weight Range: (50,0 – 5000) g Gravimetric method	PN-A-75101-15:1990 p. 2

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Milk and milk products, Alcoholic beverages, Non-alcoholic beverages, Liquid food concentrates, Liquid dietary supplements Vegetable and fruits juices, nectars</b>	Volume measurement Range: (50 - 2000) ml Volumetric method	PB-369 ed. I of 04.01.2018
	Volume measurement Range: (50 - 5000) ml Gravimetric method	
<b>Drinking water, Non-alcoholic beverages, Beer</b>	Carbon dioxide concentration Range: (2,9 – 8,0) g/l Pressure method	PB-491 ed. 1 of 29.12.2021

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<b>Dermatology Section</b> Bajana 3D, 80-463 Gdańsk		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Cosmetic products, household chemistry products intended to come into contact with skin, hygiene products</b>	Presence of an allergic reaction/contact eczema In vivo skin irritation method – open test	PB-562 ed. 3 of 15.01.2024
<b>Cosmetic products, household chemistry products intended to come into contact with skin, hygiene products</b>	Presence of an allergic reaction/contact eczema In vivo skin irritation method – semi-open and closed test	PB-561 ed. 3 of 15.10.2024

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# Summary of changes

## Scope of Accreditation No. AB 079

Status change: original version - A