Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-14244-01-00 according to ISO/IEC 17025:2005

Period of validity: 05.11.2014 to 04.11.2019 Date of issue: 05.11.2014

Holder of certificate:
Federal Budgetary Health Care Institution
Center of Hygiene and Epidemiology in Orenburg Region
60 Let Oktyabrya, 2/1, 460021 Orenburg
RUSSIAN FEDERATION

Tests in the fields:
- physical, physico-chemical and chemical analysis of foodstuffs and food raw materials, biologically active supplement, potable water and natural water;
- microbiological analysis of foodstuffs and food raw materials, potable water and water in containers;
- toxicological analysis of alcoholic products, water and polymers, chemical substances and other materials and their products;
- radiological analysis of foodstuffs, potable water, natural water, air, soil and construction materials

Abbreviations used: see last page
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1 Physical, physico-chemical and chemical analysis of foodstuffs and food raw materials, biologically active supplement, potable water and natural water

1.1 Atomic absorption analysis

GOST 30178 1996 Raw materials and food products- Atomic absorption analyses for detecting toxic elements

PNDF 14.1:2.4.139 1998 The quantitative chemical analysis of water – Technique of performance of measurements of mass concentrations of iron, cobalt, manganese, copper, nickel, silver, chrome and zinc, in drinking, natural and sewage waters using method of atomic absorption spectrometry

GOST R 52962 2008 Water – Methods for determination of chromium (VI) and total chromium


MUK 4.1.1472 2003 Atomic-absorption analysis definition of mercury in biological materials

GOST 26929 1994 Raw materials and food products – Sample preparation-Mineralization for detecting toxic elements content

GOST R 52097 2003 Apicultural products-Mineralization of sample detecting toxic elements

GOST R 51309 1999 Potable water- Detection of element content by atomic spectrometry methods

GOST R 51212 1998 Potable water-Methods for detection of total mercury content by flameless atomic absorption spectrometry

GOST R 51766 2001 Raw materials and food products- Atomic absorption methods for determination of arsenic


1.2 Gas-liquid chromatography

GOST R 51392 1999 Potable water-Determination of volatile organohalogen compounds by gas-liquid chromatography
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GOST 51486 1999  Vegetable oil and animal fats. Preparation of methyl esters of fatty acids

GOST R 51483 1999  Vegetable oil and animal fats- Detection of weight fraction of methyl esters of individual fatty acid to their sum by gas chromatography method

GOST 30418 1996  Vegetable oil- Method of determination of fatty-acid content

GOST 30089 1993  Vegetable oil- Method of determination of erucic acid

GOST R 51471 1999  Milk fat. The detection method of vegetable fats by the gas-liquid chromatography of sterols.

GOST R 51698 2000  Vodka and ethyl alcohol. Gas chromatographic method for rapid determination of the content of toxic trace.

PNDF 13.1:2:3.23 1998  The method of measurement of mass concentrations of saturated hydrocarbons С1- С5 and unsaturated hydrocarbons (ehen, propena, bythene) in the air, the air of the working area and industrial emissions by gas chromatography.

1.3 High-performance liquid chromatography

GOST R 51650 2000  Food products-Methods of determination of weight fraction of benzopyrene

GOST R 51310 1999  Potable water-Method for determination of benzopyrene content

PNDF 14.1:2:4.186 2002  Method for carrying out the measurement of weight concentration of benzopyrene in sample of natural, potable (also prewrapped in bottles) and sewage water by high performance liquid chromatography with fluorometer detection


(here only determination of benzopyrene)

1.4 Hydrometric analysis

GOST R 52472 2005  Vodkas and special vodkas. Acceptance rules and test methods
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2 Microbiological analysis of foodstuffs, food raw materials and potable water and water in containers

<table>
<thead>
<tr>
<th>Standard/Regulation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOST 10444.15 1994</td>
<td>Food products-Methods for determination the quantity of mesophilic aerobic and facultative anaerobic organisms</td>
</tr>
<tr>
<td>GOST R 52816 2007</td>
<td>Food products-Methods for detection and determination the quantity of coliform bacteria (coliform bacterium)</td>
</tr>
<tr>
<td>GOST R 52815 2007</td>
<td>Food products-Methods for detection and determination of the quantity of coagulase-positive staphylococcus and Staphylococcus aureus</td>
</tr>
<tr>
<td>GOST 10444.12 1988</td>
<td>Food products-Method for determination of yeasts and mold fungi</td>
</tr>
<tr>
<td>GOST 29185 1991</td>
<td>Food products-Methods for determination the quantity of sulphitereducing clostidia</td>
</tr>
<tr>
<td>GOST 10444.8 1988</td>
<td>Food products-Method for determination of Bacillus cereus</td>
</tr>
<tr>
<td>GOST 28560 1990</td>
<td>Food products-Method of determination of bacteria of Proteus, Morganella, Providencia</td>
</tr>
<tr>
<td>GOST 30726 2001</td>
<td>Food products-Methods for detection and determination of quantity of Escherichia coli bacteria</td>
</tr>
<tr>
<td>GOST R 51921 2002</td>
<td>Food products-Methods for detection and determination of Listeria monocytogenes bacteria</td>
</tr>
<tr>
<td>MUK 4.2.1122 2002</td>
<td>Regulation and method for detection of Listeria monocytogenes in food products</td>
</tr>
<tr>
<td>GOST 10444.9 1988</td>
<td>Food products-Method for detection of Clostridium perfringens</td>
</tr>
<tr>
<td>GOST 10444.11 1989</td>
<td>Food products-Method for determination of lactate microorganisms</td>
</tr>
</tbody>
</table>

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MUK 4.2.999 2000
Detection of quantity of bifidus bacteria in cultured milk foods

GOST 28566 1990
Food products-Methods of detection and determination of quantity of enterococcus

MUK 4.2.2046 2006
Methods for detection and determination of parahaemolytic vibrio in fish, shellfish and algae, products made from them, in water, surface water sources and other object

GOST 30425 1997
Preserved food-Method of determination of industrial sterility

MUK 4.2.2321 2008
Methods for detection of Campylobacter bacteria in food products

MUK 4.2.1018 2001
Sanitary microbiology analyses of potable water

MUK 2.1.4.1184 2003
Practical policies for implementation and usage of sanitary-epidemiologic rules and norms of SER 2141116-02 «Potable water-Hygienic requirements to the quantity of water prewrapped in bottles-Quality control»

GOST R ISO 21871 2010
Microbiology of food and animal feeding stuffs- Horizontal method for the determination of low numbers of presumptive Bacillus cereus - Most probable number technique and detection method

ISO 4832 2006-02
Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coliforms-Colony-count technique.

ISO 4833 2003-02
Microbiology of food and animal feeding stuffs. Horizontal method for the enumeration of microorganisms. Colony-count technique at 30 °C

ISO 6888-1 1999-02
Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) - Part 1: Technique using Baird-Parker agar medium

ISO 6888-2 1999-02
Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) - Part 2: Technique using rabbit plasma fibrinogen agar medium
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<table>
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<tr>
<th>Standard Number</th>
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<tbody>
<tr>
<td>ISO 6888-3</td>
<td>Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) - Part 3: Detection and MPN technique for low numbers</td>
</tr>
<tr>
<td>ISO 7251</td>
<td>Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of presumptive Escherichia coli - Most probable number technique</td>
</tr>
<tr>
<td>ISO 7932</td>
<td>Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of presumptive Bacillus cereus - Colony-count technique at 30 °C</td>
</tr>
<tr>
<td>ISO 7937</td>
<td>Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of Clostridium perfringens - Colony-count technique</td>
</tr>
<tr>
<td>ISO 11290-2</td>
<td>Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of Listeria monocytogenes - Part 2: Enumeration method</td>
</tr>
<tr>
<td>ISO 15214</td>
<td>Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of mesophilic lactic acid bacteria - Colony-count technique at 30 °C</td>
</tr>
</tbody>
</table>

### 3 Toxicological analysis of alcoholic products, water and polymers, chemical substances and other materials and their products

<table>
<thead>
<tr>
<th>Code</th>
<th>Method Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR № 01.021</td>
<td>Method of rapid testing of integral chemic toxicity of potable, surface, ground, sewage and purified water by bacterial test «Ecolum»</td>
</tr>
<tr>
<td>MR № 01.017</td>
<td>Quality rating of ethyl alcohol, vodka and alcoholic products- Rapid test with the use of bacterial bioluminescence</td>
</tr>
<tr>
<td>MR № FC/1504</td>
<td>Rating of toxic level of alcohol and vodka- Rapid test with the use of cattle sperm as test-object</td>
</tr>
<tr>
<td>MR № 01.018</td>
<td>Method of toxic level detection of chemical agents, polymers, materials and products using biotest «Ecolum»</td>
</tr>
<tr>
<td>MU 1.1.037</td>
<td>Biotesting of products made from polymeric and other kind of material</td>
</tr>
<tr>
<td>MR 2.1.7.2279</td>
<td>Rapid test of toxic level of wastage and usage on cattle sperm</td>
</tr>
</tbody>
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Method of testing toxicity of water and water extract from ground, sediments of sewage and wastage on exchange intensity of bacterial bioluminescence test system «Ecolum»

FR 1.31.2009.06301 2009
Method of execution measurements index of toxicity of ground, ground soil, water and wastage mobility by cattle sperm in vitro

4 Radiological analysis of foodstuffs, potable water, natural water, air, soil and construction materials

MUK 2.6.1.1194 2003
Radiological regulation - Strontium-90 and caesium-137 - Food products - Sampling, testing and hygienic rating - Practical policy for control methods

MVI №40090.3Н700
Method of radionuclide activity measurement with the use of scintillation gamma spectrometer with software "Progress"

MVI №40090.4Г006
Method of radionuclide measurement with the use of scintillation beta spectrometer with software "Progress"

MU 2.6.1.1981 2005
Practical policies - Radiation control and hygienic rating of potable water supplies and potable water by the indicators of radiation safety - Optimization of protection actions for sources of potable water supplies with heightened radionuclide content

MI 2707 2001
Potable water - Results interpretation of measurement of radioactivity and requirements to the accuracy of provided measurements

MVI №40090.5И665
Method of measurement of summery alpha-activity with the use of scintillation alpha-radiometer with software "Progress"

MVI №40090.9А605 2009
The method of radiation monitoring Total activity of alpha- and beta-emitting radio nuclides in natural waters (fresh and mineralized bathrooms). Sample preparation and measurement

MVI 1.2.3.(2) 2006
Technique for measuring ambient equivalent dose (MED) in the control points of objects.

GOST 30108 1994
Construction materials and products. Determination of the specific effective activity of natural radio nuclides

MVI №40090. 6К817 1993
Measurement technique for the average, at the exposure time, radon activity concentration in the air of residential and office space. STC "Niton", Moscow.

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MVI № 40090.6К815 1993
The measurement method of radon activity concentration in the air of residential and office space, as well as in all types of mines, by sampling the air. STC "Niton", Moscow.

MVI № 40090.6К816 1993
Methods of measuring the density of radon flow from soil and building structures. STC "Niton", Moscow

Abbreviations used:

GOST R national standard of the Russian Federation
GOST R ISO national standard of the Russian Federation identical to the international standard
GOST interstate standard. Adopted by the Interstate Council for Standardization, Metrology and Certification (EASC)
ISO International Organization for Standardization
MR methodical recommendations. Federal Office for Inspectorate in the field of customers and human well-being protection
MU methodical instructions. Federal Office for Inspectorate in the field of customers and human well-being protection
MVI procedure of measurements
PNDF Federal environmental regulations