

## TECHNICAL FILE

Date of receipt (DD/MM/YYYY) ...

[to be completed by the Commission]

Number of pages (including this page) **7**

Language used for submission of application **English**

File number ...

[to be completed by the Commission]

**Geographical indication to be registered** *Originali lietuviška degtinė/Original Lithuanian vodka*

### Category of the spirit drink

Vodka (category 15 of Annex II to Regulation (EC) No. 110/2008)

Flavoured vodka (category 31 of Annex II to Regulation (EC) No 110/2008)

### Description of the spirit drink

*Originali lietuviška degtinė/Original Lithuanian vodka*— Physical, chemical and/or organoleptic characteristics

- the minimum alcoholic strength by volume of vodka shall be 40 %;
- organoleptic characteristics of vodka: transparent and colorless crystal-clear liquid, flavor - pure, fresh and mellow, taste - smooth and mild with a slightly sweet finish;
- the maximum level of residues:
  - esters expressed in grams of ethyl acetate per hectolitre of 100 % vol. alcohol: 1,3;
  - aldehydes expressed in grams of acetaldehyde per hectolitre of 100 % vol. alcohol: 0,2;
  - higher alcohols expressed in grams of methyl2 propanol1 per hectolitre of 100 % vol. alcohol: 0,3;
  - methanol expressed in grams per hectolitre of 100 % vol. alcohol: 10;
- the maximum content of sugar, expressed as invert sugar, shall not exceed 1 gram per litre of vodka.

— Specific characteristics (compared to spirit drinks of the same category)

- *Originali lietuviška degtinė/Original Lithuanian vodka* is a spirit drink produced from ethyl alcohol of agricultural origin, obtaining following fermentation with yeast exclusively from cereal grains, grown in the territory of the Republic of Lithuania,
- the only grains which may be used for production of ethyl alcohol for *Originali lietuviška degtinė/Original Lithuanian vodka* are rye and/or wheat and/or triticale.
- vodka may be sweetened with sugar and/or honey only to round off the final taste of the product;
- *Originali lietuviška degtinė/Original Lithuanian vodka* should be filtered by using a three - stage classical filtration system:
  - primary quartz sand filters,
  - adsorbent columns through activated birch-tree charcoal
  - secondary quartz sand filters. –
- *Originali lietuviška degtinė/Original Lithuanian vodka* should not be coloured.

## Flavoured *Originali lietuviška degtinė*/Original Lithuanian vodka

— Physical, chemical and/or organoleptic characteristics

- the minimum alcoholic strength by volume of flavoured vodka shall be 40 %;
- organoleptic characteristics: color, flavour and taste depends on the raw material used for flavouring of vodka;
- the maximum content of sugar, expressed as invert sugar, shall not exceed 100 grams per litre.
- the maximum total acidity, expressed as citric acid shall not exceed 6,5 grams per litre,
- the minimum dry extract from juices (for flavoured *Originali lietuviška degtinė*/Original Lithuanian vodka containing juice) shall be 6 grams per litre,

— Specific characteristics (compared to spirit drinks of the same category)

- flavoured *Originali lietuviška degtinė*/Original Lithuanian vodka is a spirit drink produced by flavouring *Originali lietuviška degtinė*/Original Lithuanian vodka with fruit juices and/or plant infusions and/or natural flavouring substances defined in Article 3(2)(c) of Regulation (EC) No 1334/2008 and/or flavouring preparations as defined in Article 3(2)(d) of that Regulation,
- mostly used flavourings - traditional in Lithuania growing berries and fruits (cranberry, raspberry, apple, quince, plum, black currant and etc).

## Geographical area concerned Republic of Lithuania



## Method for obtaining the spirit drink

### *Originali lietuviška degtinė*/Original Lithuanian Vodka

All technological processes of *Originali lietuviška degtinė*/Original Lithuanian Vodka production (except packaging) must be carried out in the territory of the Republic of Lithuania.

The main ingredients of *Originali lietuviška degtinė*/Original Lithuanian Vodka are drinking water and grain ethyl alcohol.

Water quality and treatment is a key link in a production of vodka. Drinking water in Lithuania is obtained from 70 - 200 m deep artesian wells. Lithuanian climatic and geological - hydrogeological conditions are favourable for the formation of fresh groundwater resources, which accumulates in multi-sedimentary heavy layers consisting of various composition and filtration permeability layers. Lithuania is one of the few states in the European region and in the world where the drinking water supply relies only on groundwater. Clean, fresh and uncontaminated water is essential for the production of high quality vodka.

The drinking water for production of vodka shall be specially treated, including softening and reverse osmosis purification, with optimum salt content, as it is defined in Technical Regulation of 7 April 2003 approved by the Order of the Minister of Agriculture of the Republic of Lithuania No 3D-139 on the production, regulation and sales presentation of spirit drinks. Total hardness of water should be not higher than 0,36 mmol/L. Depending on the quality of drinking water, the following processing operations are allowed: filtration through sand filters, coagulation, softening, ion exchange demineralization, reverse osmosis treatment method, UV-rays and others. This clean and organically pure water, used for production has a great effect on the overall character of the vodka and contributes to texture and mouthfeel. Water quality and treatment is a key link in a production of vodka, therefore water addition must be done before filtration process and take place in the geographical area - the territory of the Republic of Lithuania.

Grain ethyl alcohol shall be rectified, not less than the quality of “Lux”, production and handling processes of which are regulated by Technical Regulation of 27 January 2003 approved by the Order of the Minister of Agriculture of the Republic of Lithuania No 3D-25 on the ethyl alcohol of agricultural origin. Maximum level of residues for ethyl alcohol of agricultural origin:

- esters expressed in grams of ethyl acetate per hectolitre of 100 % vol. alcohol: 1,3;
- aldehydes expressed in grams of acetaldehyde per hectolitre of 100 % vol. alcohol: 0,2;
- higher alcohols expressed in grams of methyl2 propanol1 per hectolitre of 100 % vol. alcohol: 0,3;
- methanol expressed in grams per hectolitre of 100 % vol. alcohol: 10;
- volatile bases containing nitrogen expressed in grams of nitrogen per hectolitre of 100 % vol. alcohol: 0,1;
- furfural: not detectable.

For production of ethyl alcohol only whole and not damaged rye and/or wheat and/or triticale grain must be used; each distillery must use individual instructions of special technology.

Specially treated water and grain ethyl alcohol are mixed to a required alcoholic strength not less 40 % by volume. Mixture should be filtered through three - stage classical filtration system:

1. The primary dried quartz sand filters for primary purification in order to retain eventual solid particles. Special type of monocrystal sand is obtained from quartz sand quarry in Lithuania located near the town of Anykščiai. This sand is formed in the Neogene period 25 million years ago. SiO<sub>2</sub> content in the quartz sand is more than 98,0 %. The size of sand particles should be 0,5 - 5,0 mm.
2. Special processing through the columns of activated birch - tree charcoal. A charcoal column is a vertical cylinder where activated charcoal is loaded. Filtration is carried out by the dynamic method, as it is described in Annex 3 of Technical Regulation of 7 April 2003 approved by the Order of the Minister of Agriculture of the Republic of Lithuania No 3D-139 on the production, regulation and sales presentation of spirit drinks. The water - alcohol mixture is passed under pressure from bottom to top through a layer of charcoal. Mixture should pass through filters at a certain speed in order to achieve high quality vodka. This filtration method removes extraneous substances, catalyzes some oxidation processes and notably improves organoleptic characteristics of the product. The change in the concentration of volatile compounds during the filtration process is relatively small, but have an effect on the sensory perception of vodka, which mostly is influenced by a mixture of many compounds, often present at low concentrations.
3. The secondary quartz sand filters for final purification thus adding crystal clearness to the final product.

To provide an exceptional organoleptic characteristics of *Originali lietuviška degtinė/Original Lithuanian Vodka*, additionally other filters may be used - activated coconut shell charcoal covered with melted colloidal silver, platinum ions and etc. Additional treatment makes product particularly smooth, gives it a full and balanced taste, crystalline clarity and brilliance.

In order to round off final taste of the product the above-mentioned operations may be followed by introducing into the vodka special ingredients - sugar and/or honey. The maximum content of sugar, expressed as invert sugar, shall not exceed 1 gram per litre of vodka.

### **Flavoured *Originali lietuviška degtinė/Original Lithuanian vodka***

All technological processes of flavoured *Originali lietuviška degtinė/Original Lithuanian Vodka* production (except packaging) must be carried out in the territory of the Republic of Lithuania.

*Originali lietuviška degtinė/Original Lithuanian vodka* may be flavoured only after the completion of all compulsory technological processes of this product. Therefore, water addition also must take place only in the geographical area.

Only natural flavouring substances defined in Article 3(2)(c) of Regulation (EC) No 1334/2008 and/or flavouring preparations as defined in Article 3(2)(d) of that Regulation and fruit juices may be used for flavouring of *Originali lietuviška degtinė/Original Lithuanian vodka*.

Flavoured vodka also may be coloured, sweetened, blended or matured as defined in Annex I (10) to Regulation (EC) No 110/2008. Mostly used flavourings - traditional in Lithuania growing berries and fruits - cranberry, raspberry, apple, quince, plum and etc.

### **Link with the geographical environment or origin**

— Details of the geographical area or origin relevant to the link

### **History/Origin**

Lithuania is famous throughout the world for being the country with very long grain vodka production traditions.



The production of distilled beverages in Lithuania was first mentioned in sources in Vilnius in 1501 (Estate of Grand Duke of Lithuania Alexander Jagiellon books of account, 1494–1504. Prepared by D. Antanavičius, R. Petrauskas. Vilnius, 2007; p. 186).

In the mid-16th century in what is now the territory of Lithuania, there were vodka taverns operating not only in the major cities, but in small towns as well (for a list of locations, see: Alexandrowicz, S. *Miasteczka Białorusi i Litwy jako ośrodki handlu w XVI i w połowie XVII wieku* // *Rocznik Białostocki*, 1961).

The Third Statute of Lithuania (1588) definitively established propination – the exclusive right of landowners to produce and sell alcoholic beverages on their property, including vodka (Chapter XIV, Article 33).

In the first (1629) and second (1642) editions of Konstantinas Sirvydas' *Dictionarium trium lingvarum*, the first Lithuanian language dictionary, two words were mentioned for naming distilled beverages: *arielka* and *degtinė*. The first is from the Old Ruthenian word *горелька*, which was derived from the Polish word *gorzałka*. The word *degtinė* is a direct translation from the Latin *vinum crematum*, or simply *crematum*.

In 1795, the Russian Empire annexed almost all of the lands of the Grand Duchy of Lithuania, but noble landowners were left with the right of propination, and in 1810, estate breweries were given tax breaks. In 1861, representatives of all classes were permitted to profit from vodka making and a uniform excise duty based on the net ethyl alcohol content of the beverage was introduced. Small estate vodka breweries were not able to compete with the growing vodka factories in the big cities, and by the end of the 19th century, industrial production of vodka had become predominant in Lithuania (Antanas Astrauskas, *Per barzdą varvėjo: svaigiųjų gėrimų istorija Lietuvoje*. Vilnius, 2008; p. 168–171).

On 6 June 1894, a state monopoly on vodka production and trade was begun in stages in the Russian Empire according to a decree issued by Tsar Alexander III. This established a single method of producing vodka: state vodka factories bought purified (rectified) ethyl alcohol from private distilleries by tender and then diluted it with water to 40 % by volume. On 1 July 1897, the monopoly was introduced in the governorates of Vilnius and Kaunas, and on 1 January 1898 – in the Lithuanian governorates of Suwałki (Полное собрание законов Российской империи. Собрание 3-е. Т. XIV, № 10766; Т. XV, № 11620).

On 15 March 1922, the Seimas of the independent Republic of Lithuania reintroduced a state vodka monopoly, allocating 10 million Lithuanian *auksinas* (the temporary currency) for renovation of the Kaunas, Panevėžys, Telšiai and Vilkaviškis distilleries that remained in the territory of the Republic of Lithuania as well as 20 million Lithuanian *auksinas* for the procurement of raw materials and packaging (Vyriausybės žinios, 1922, No 84).

In 1940, after the occupation and annexation of the Republic of Lithuania by the USSR, the Soviet state monopoly on vodka production that had existed since 1924 came into force in the occupied territory.

In occupied Lithuania, the state vodka factories produced vodka according to very detailed technical descriptions called 'state standards' (государственный стандарт, ГОСТ) and 'vodka product recipe collections' which were the same for all vodka factories in the Soviet Union. These types of vodka accounted for the bulk of vodka production. However, the factories were able to produce vodka made with their own recipe according to temporary standards, and the most successful recipes could be included in the collection of vodka recipes for the entire Soviet Union. For example, one such recipe was *Lithuanian Clear Vodka* (in Lithuanian: *Lietuviška skaidrioji degtinė*), which was developed by K. Adinavičius, a technologist of Kaunas company Stumbras

(Рецептуры ликеро-водочных изделий и водок. Москва, 1981. С. 274, 346). Production of *Originali lietuviška degtinė/Original Lithuanian Vodka* according to the recipe invented at the Kaunas Stumbras factory began in 1989. This recipe has been developed after almost hundred years of improving vodka production methods.

After regaining its independence in 1990, the Republic of Lithuania inherited the Soviet state monopoly on vodka production. It was abolished in preparation for Lithuania's accession to the European Union by privatising the vodka factories in 2003. From the accession of Lithuania to the EU *Originali lietuviška degtinė/Original Lithuanian Vodka* was recognised as a geographical indication.

### Worldwide sales and reputation

*Originali lietuviška degtinė/Original Lithuanian vodka* is exported from Lithuania to over 30 countries around the world. In 2016 vodka sales reached 4.4 million litres.

*Originali lietuviška degtinė/Original Lithuanian vodka* is the most awarded Lithuanian vodka. It has collected more than 35 awards from prestigious international tasting competitions in UK, Russia, USA, Germany, Slovenia and Lithuania:

Award	Competition and country	Year
Gold	"Zlaty Kosak", Slovenia	1990
Gold	"International food exhibition", Kazakhstan	1996
Gold	"Agrobalt", Lithuania	1996
Gold	"Wine and vodka", Sankt Peterburg, Russia	1998
Gold	"Lithuanian product of the year", Lithuania	2000
Silver	„The International Review of Spirits" at Beverage Testing Institute, USA	2004
Gold	"Product of the year" at „World Food Moscow", Russia	2004
Gold	"Lithuanian product of the year", Lithuania	2005
Silver, Gold	„The International Review of Spirits" at Beverage Testing Institute, USA	2005
Silver	"International DLG Quality Competition for Spirits", Germany	2005
Gold, Gold	„San Francisco world spirits competition", USA	2006
Silver	"International DLG Quality Competition for Spirits", Germany	2006
Silver	„The International Review of Spirits" at Beverage Testing Institute, USA	2006
Silver, Bronze	"Drinks International Vodka Challenge", UK	2007
Gold	„San Francisco world spirits competition", USA	2007
Bronze	"Drinks International Vodka Challenge", UK	2008
Gold	"Prodexpo", Russia	2008
Silver	„San Francisco world spirits competition", USA	2008
Silver	"International Spirits Challenge", UK	2009
Bronze	„San Francisco world spirits competition", USA	2010
Silver	"Wine & Spirits WSWA", USA	2010
Gold	"Prodexpo", Russia	2010
Silver	„The International Review of Spirits" at Beverage Testing Institute, USA	2013
Silver	"International DLG Quality Competition for Spirits", Germany	2014
Gold	"Best Vodka", Russia	2014
Silver	„The International Review of Spirits" at Beverage Testing Institute, USA	2015
Silver	„The International Review of Spirits" at Beverage Testing Institute, USA	2016
Silver, Silver, Gold	„Los Angeles International Spirits Competition", USA	2016
Bronze	"NY World Wine and Spirits Competition", USA	2016
Double Gold	"San Francisco World Spirits Competition", USA	2017
Gold	"International DLG Quality Competition for Spirits", Germany	2017
Gold	„Los Angeles International Spirits Competition", USA	2017
Bronze	"International Spirits Challenge", UK	2017
Double Gold	"The Fifty Best Vodka", USA	2017

*Originali lietuviška degtinė/Original Lithuanian vodka* is mentioned in *Manufacturing journal magazine* vol. 4/3-2008 page 38-40.

— Specific characteristics of the spirit drink attributable to the geographical area

The exceptional organoleptic properties of the *Originali lietuviška degtinė/Original Lithuanian vodka* are result of the following factors:

- natural - climatic factors - Lithuanian climate and geological-hydrogeological conditions favourable for the formation of fresh underground drinking water, quality of which is one of the best in Europe and which is essential for the production of high quality neutral and smooth vodka;
- the agrochemical and sanitary conditions of Lithuania soils used for agriculture – the impact of human agricultural activity on the soil is very low in Lithuania, the amount of many elements (arsenic, bismuth, cobalt, copper, lithium, mercury, lead) is two-three and more times lower than in some other countries of Europe (GEMAS, Geochemical atlas of agricultural and grazing land soil of Europe). The unpolluted soil impacts high quality of cereals (rye, wheat, triticale), which are used for production of “Lux” quality ethyl alcohol. Vodka, produced from this ethyl alcohol, possesses a special softness and round mouthfeel.
- traditional knowledge and specific to this region retained authentic a three-stage filtration method of vodka. This filtration method gives the hints of sweetness for background of vodka, crystal clearness also changes concentration of volatile compounds, which form fresh flavour, typical for Lithuanian vodka; deep production traditions and experience of Lithuanian distilleries for more than 5 centuries.

## **European Union or national/regional provisions**

European Union:

Regulation (EC) No 110/2008 of the European Parliament and of the Council of 15 January 2008 on the definition, description, presentation, labelling and the protection of geographical indications of spirit drinks and repealing Council Regulation (EEC) No 1576/89 (OJ L 39, 13.2.2008, p.16)

Lithuania (on national level):

Technical Regulation of 7 April 2003 approved by the Order of the Minister of Agriculture of the Republic of Lithuania No 3D-139 on the production, regulation and sales presentation of spirit drinks.

## **Applicant**

- Member State, Third Country or legal/natural person **Alliance of Baltic Beverage Industry**
- Full address (street number and name, town/city and postal code, country) **Olimpieciu st. 5-12, Vilnius, LT- 09237 Lithuania**
- Legal status (in the case of legal persons) **Association**

## **Supplement to the geographical indication**

### **Specific labelling**

#### ***Flavoured Originali lietuviška degtinė/Original Lithuanian vodka***

List of ingredients of Flavoured *Originali lietuviška degtinė/Original Lithuanian vodka* should be labelled as it is defined in Technical Regulation of 7 April 2003 approved by the Order of the

Minister of Agriculture of the Republic of Lithuania No 3D-139 on the production, regulation and sales presentation of spirit drinks.