

## OTHER ACTS

## EUROPEAN COMMISSION

**Publication of an application pursuant to Article 17(6) of Regulation (EC) No 110/2008 of the European Parliament and of the Council on the definition, description, presentation, labelling and the protection of geographical indications of spirit drinks and repealing Council Regulation (EEC) No 1576/89**

(2019/C 239/09)

This publication confers the right to oppose the application pursuant to Article 27 of Regulation (EU) 2019/787 of the European Parliament and of the Council <sup>(1)</sup>

## MAIN SPECIFICATIONS OF THE TECHNICAL FILE

**'NORSK AKEVITT'/'NORSK AQUAVIT'/'NORSK AKVAVIT'/'NORWEGIAN AQUAVIT'****File number: PGI-NO-02239 — 25.11.2016****1. Geographical indication to be registered**

'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit'

**2. Category of the spirit drink**

Akvavit or aquavit (Category 24 of Annex II to Regulation (EC) No 110/2008)

**3. Description of the spirit drink*****Principal physical characteristics***

'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit' ranges in colour from near colourless to dark amber.

***Principal chemical characteristics***

The content of ethyl alcohol is between 37,5 %vol and 60 %vol.

The flavour components origin predominantly from ethanol-based distillates of dill seeds or caraway, ensuring the aquavit contains the volatile substances limonene and (S)-carvone. Distillates and/or macerates of other herbs and spices may contribute with other volatile substances such as anisol, anethol, eugenol, S- and R-linalool. The cask maturation process add lignin derivates such as various guayacol compounds; eugenol; vanillin, vanillic acid and similar substances; tannins and other polyphenols; oak lactone ( $\beta$ -methyl- $\gamma$ -octalactone).

***Principal organoleptical characteristics***

The aquavit is soft on the palate with a defined flavour and aroma of caraway/dill, and notes of other herbs and spices. These include, but are not limited to, aniseed, celery seeds, chamomile flowers, coriander seeds, fennel seeds, grain of paradise, dried lemon peel, dried pomeranse peel and star anise. Depending on the time of maturation, aromas originating from the cask will be more dominant and the aromas originating from the spices will be more subtle. The cask will contribute with flavours such as chocolate, coconut, cloves, coffee, toffee, caramel, smoky and/or nutty characters.

***Specific characteristics compared with spirit drinks of the same category***

The use of potatoes as raw material is one of the specificities of 'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit', distinguishing it from other aquavits, which are usually produced using grains as raw material for the agricultural ethyl alcohol.

<sup>(1)</sup> OJ L 130, 17.5.2019, p. 1.

Norwegian aquavit is perceived as sweeter, rounder and more complex in flavour compared to other products in the same category due to compounds originating from the cask and reaction products from the maturation process. The aquavit is traditionally consumed neat at room temperature.

#### 4. Geographical area concerned

Production of 'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit' takes place within the borders of the Kingdom of Norway.

#### 5. Method for obtaining the spirit drink

There are five stages in the production of 'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit': production of potato spirit, distillation of herbs and spices, pre-maturation blending, cask maturation and post-maturation blending and bottling.

##### **Production of the potato spirit**

Potatoes, of which at least 95 % are of Norwegian origin, are boiled and mixed with water. Natural enzymes in the form of barley malt or exogenous, starch degrading enzymes are added, creating a sugary liquid ('wash'). The starch in the wash is broken down to sugars by the enzymes and the wash is cooled down. The wash is added cultivated yeast to initiate fermentation in which the sugars in the liquid are converted to ethanol, other alcohols and congeners. The fermented liquid is then distilled in batches or continuously using a column still. In the column still, a flow of wash is passed through a series of plates. Steam is applied at the base of the column, heating the wash to boiling temperatures, thus creating a vapour moving through the perforated plates removing alcohols and congeners from the liquid phase. The alcohol-rich vapour is condensed at the top section of the column. The final spirit has a minimum alcohol content of 96,0 %vol ethanol, containing no more than 10 g methanol per hectolitre 100 % ethanol.

##### **Production of spice distillates**

The aquavit must be flavoured with one or more distillates of caraway (*Carum carvi*) and/or dill seeds (*Anethum graveolens*). The potato spirit is re-distilled in a pot still with dry or macerated caraway (*Carum carvi*) and/or dill seeds (*Anethum graveolens*). Other herbs and spices may be used in addition to caraway and/or dill seeds. The herbs or spices are added water and ethyl alcohol, and may be given time to macerate before distillation. The water-to-ethyl alcohol ratio and the maceration time is dependent on the local recipe. The quantity and selection of herbs and spices may vary according to the recipes.

The spice distillates are produced in copper containing pot stills removing all bitter tasting substances and colour. The contact between the volatile components and copper surfaces of the stills removes unwanted off-flavour components, such as sulphur-containing compounds. The first few litres of the distillate ('head') is discarded, as is the last litres of the distillate ('tails'). The so-called 'heart' of the distillate is kept and used for aquavit. In Norwegian aquavit production, the end cut-point of the 'heart' collected is earlier than what is common in the rest of the category. This gives Norwegian aquavit spice distillates that is perceived as fresher and lighter, compared to other products in the category.

##### **Pre-maturation blending**

The spice distillate(s) may be directly added to wooden casks for maturation, or may be blended with ethanol, water, sugar or spice macerates at the discretion of the blender.

##### **Cask maturation**

The aquavit, i.e. the spiced spirit, is matured in Norway in wooden casks for at least 6 months in casks smaller than 1 000 l or for at least 12 months in casks larger than 1 000 l. The distinguishing in maturation times in different size casks is due to the geometry of the casks as the surface area of the cask will affect the extraction of flavour components and evaporation of volatile compounds, affecting the flavour development of the aquavit. Larger casks have smaller surface areas relative to the volume in the cask, compared to smaller ones, and the maturation time is prolonged to ensure the effect on flavour. Traditionally there have been produced aquavits aged from 6 months up to several decades.

The casks used are traditionally oak casks previously used to mature fermented alcoholic beverages, such as sherry, madeira and port wine. New casks are also used to mature aquavit.

Cask maturation is important for the organoleptic perception of 'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit', and the organoleptic qualities that make it unique in the aquavit category. During cask maturation, flavour and colour compounds will be extracted directly from the wood and from decomposition products of wood macromolecules. These molecules include, but are not limited to, lignin derivatives such as various guayacol compounds (giving smoky, spicy and clove-like character); eugenol (giving clove-like character); vanillin, vanillic acid and similar substances (giving sweet, vanilla-like character). Tannins and other polyphenols are extracted from the wood, as is oak lactone ( $\beta$ -methyl- $\gamma$ -octalactone) which adds sweet flavours of wood and coconut. These characteristics are not found in aquavits that are not cask-matured.

In addition, reactions take place between wood components and constituents of the maturing spirit; between only wood extractives and between only distillate components, producing more flavour compounds. These molecules include, but are not limited to, acetaldehyde and acetic acid. Oxidation of volatile components from the distilled spices soften the flavour impression of the spices and gives the aquavit a smooth, not-burning mouth-feel. This will occur no matter the age and previous use of the cask.

Thirdly, evaporation of volatile compounds during maturation change the character of the spirit. As water and ethyl alcohol evaporates out of the casks during maturation, the ethyl alcohol concentration of the product inside the cask change. This will affect the solubility of flavour compounds such as lactones, tannins and lignin derivatives. The ethanol-to-water ratio of the vapour is dependent on the warehouse temperature and humidity.

The cask maturation is unique for the traditional, Norwegian production process and distinguishes 'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit' from other aquavits.

#### **Post-maturation blending and bottling**

After maturation, the Norwegian aquavit from several casks of the same or different production batches are blended in order to obtain a balanced and complex tasting aquavit. The flavour can be adjusted with small amounts of spice distillates. The aquavit may be added sugar, but not exceeding a dry matter content of 15 g per litre.

The blender may add plain caramel colouring in order to adjust the colour of the finished product. Norwegian aquavit gains its colour mainly from the maturation in wooden casks, however there are cask-to-cask variation in the amount of colour components that are dissolved in the aquavit thus giving different colour to the contents of each cask. The blender will seek to produce a final product with a consistent quality, and it may therefore be necessary to use a small amount of plain caramel colouring to adjust the colour. Plain caramel colour is added only as a colouring agent, not for flavouring or sweetening.

Norwegian aquavits are filtered prior to bottling to remove any wood particles that may have accumulated in the spirit during cask maturation. The aquavit may be stabilised through chill filtering in order to prevent the form of chill haze in the bottled product.

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

'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit' has both a reputation and a special quality, which are linked to the demarcated geographical area.

#### **Reputation**

The first documentary evidence of aquavit being produced in Norway dates back to 1531, when a package containing such aquavit was sent from the nobleman Eske Bille in Bergen to the last archbishop of Norway, Olav Engelbrektsson. In 1776, Christopher Blix Hammer who lived in the community Melbostad at Hadeland, published the dissertation 'Chymiskoeconomisk Afhandling om norske Akeviter, Bær-Tinkurer og Bær-Safter' (eng. 'chemical-economic dissertation on Norwegian aquavits, berry-macerates and berry juices'). The paper describes the production of aquavits using grain spirit combined with different herbs and spices. Christopher Blix Hammer also elaborates on Norwegian aquavit in 'Norsk Kogebok' (eng. 'Norwegian cookbook') published in 1793.

Though the first Norwegian aquavits were made using grain spirits, the potato became the preferred raw material from the 1830s. The first documentation of using potatoes as raw material for spirit production in Norway dates back to 1791 in a letter to the Danish-Norwegian king in Copenhagen, who controlled the spirit production in Norway at that time. The introduction of the potato in Norwegian farming rescued Norwegians from famine, due to a threefold increase in starch yield per square meter of field when growing potatoes compared to grain. The potato was further appreciated when the discovery of using barley malt enzymes to break down the starch to fermentable sugars was made, and the potato became the raw material of choice for making aquavit.

The fact that Norwegian aquavit is made from Norwegian potatoes is general knowledge, and an expectation among aquavit consumers in Norway, making it an important part of the reputation of Norwegian aquavit.

The tradition of spice trade traces back to medieval time. Caraway and dill seeds have been used as remedies to improve digestion of wholesome, Norwegian, traditional meals and were thus the spices of choice for producing a spiced spirit, i.e. aquavit.

The Norwegian Lysholm family pioneered cask maturation of aquavit, both at sea and on land. The history of this highlights the origin of Norwegian aquavit.

The maturation of aquavit dates back to 1807. Two years previously, Catharina Lysholm shipped five oak casks with Norwegian aquavit to the East Indies on the brig 'Thronhjems Prøve'. Unable to sell the Norwegian spirit, the Captain returned to Norway with the spirit. The aquavit was thought to have spoiled during the journey, but a tasting revealed that the spirit had actually mellowed and undergone a very favourable quality improvement.

The Lysholm family kept this a closely guarded secret, and when they established their distillery in Trondheim in 1821, the aquavit was matured in fortified wine casks. Combining aquavit maturation at sea with a large export of clip fish to South America, the World's oldest aquavit brand — 'Linie Aquavit' — was established. The 'linie' part of the name refers to the crossing of the equator, which maximised the effect of maturation.

Lysholm's distillery built their warehouses near the sea in Trondheim, as they discovered that the aquavit maturation was favoured by the higher humidity by the sea compared to the dry warehouses further inland. The Lysholm distillery pioneered the cask maturation of Norwegian aquavit, but they were by no means alone in producing aquavit in this way. Lysholm's great success with their cask-matured aquavits tempted distilleries established from 1856 to follow suit, and cask maturation became a vital part of the production of Norwegian aquavit. Recipes from these distilleries suggest that aquavits could be matured for 20 to 30 years to produce the most premium products.

In 1916, prohibition in Norway outlawed the production and consumption of spirits. When the prohibition was repealed in 1927, the Norwegian government kept control of the Norwegian spirits producers through a state-owned production monopoly that overtook the rights to all the previous spirits recipes, equipment and brand rights. During the 78 years of production monopoly until 2005, product development and category care were not adapted to the market. This meant that the recipes from the pre-prohibition spirits producers were kept mostly intact during this period. The Norwegian legislation determining the use of cask maturation in the production of 'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit' was put in place to protect the traditional, Norwegian production methods of aquavit, and ensuring that any product named 'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit' follows the requirements mentioned.

After the fall of the production monopoly in 2005, several new producers have been established, producing a range of Norwegian aquavits following the same, traditional production methods as previously described.

On the international aquavit scene, the systematic cask maturation is what distinguishes Norwegian aquavit from other aquavits. It has also given rise to the international reputation of the quality of Norwegian aquavit, both historically and in recent years. Several awards have been obtained by Norwegian aquavits at worldwide competitions like San Francisco World Spirits Competition, China Wine & Spirits Award, International Wine & Spirits Competition, International Spirits Challenge, Berlin International Spirits Competition, New York Spirit competition, Brussel International exposition (1897), Copenhagen world fair (1888), World fair in Bergen (1898), UK world Expo (1907).

### **Special quality**

'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit' is a distinctive aquavit, which uses several different spice distillate formulae, blending recipes, cask maturation times and post-maturation blending recipes. Each of these steps are vital in creating the typical character of Norwegian aquavit.

*Production process**Spices used*

The selection of spices used in making the spice distillates are of vital importance in the character of the spirit.

*Spice distillation*

The size and shape of the pot stills used in making the spice distillates affect the spice distillate produced, thus shaping the character of the finished product. The shape and size of the pot stills vary from producer to producer, giving each aquavit producer a unique product. The selection of the 'heart' spice distillate also vary between producers, adding to the individual uniqueness of the Norwegian aquavits.

*Cask maturation*

The cask maturation step contributes with flavour, aroma and sensory components unique to 'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit'. Due to the cask maturation adding flavour components to the spirit, Norwegian aquavit is enjoyed at room temperature, unlike non-cask-matured aquavits which are usually enjoyed chilled.

*Human factors*

The experience and expertise of individuals in the production of 'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit' is essential for acquiring the well-renowned, traditional character of the spirit.

*Distiller*

The distiller manages the production of the spice distillates used. The knowledge and experience of the distiller is vital in order to obtain the right quality 'heart' spice distillate.

*Blender*

The blender uses smell, taste and knowledge in order to blend the aquavit prior to cask maturation. The result of the maturation is dependent on the blender's foresight of the maturation process and instinct on how the maturation affects the aquavit. Post maturation, the blender's competence is vital in order blend casks to obtain a consistent, high-quality product.

**7. European Union or national/regional provisions**

The basic requirements are laid down in Regulation (EC) No 110/2008 as incorporated in the EEA Agreement and implemented in § 2 of the Norwegian Regulation 11 October 2006 No 1148 on spirit drinks and aromatised drinks.

Any product labelled and distributed with the term 'Norsk Akevitt'/'Norsk Aquavit'/'Norsk Akvavit'/'Norwegian Aquavit' is protected by — and must therefore comply with — the special provisions of Chapter III, § 6a of the Norwegian Regulation on spirit drinks and aromatised drinks:

§ 6a of the Norwegian Regulation requires that the aquavit must be produced in Norway; that 95 % of the potato raw material must be grown in Norway; and that the ethyl alcohol and the aquavit must be produced in Norway. In addition, the aquavit must be matured in Norway in wooden casks for at least 6 months in casks smaller than 1 000 l or for at least 12 months in casks larger than 1 000 l.

**8. Applicant**

Norway  
The Norwegian Ministry of Agriculture and Food  
P.O. BOX 8007 Dep.  
0030 Oslo  
NORWAY

**9. Supplement to the geographical indication**

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**10. Specific labelling rules**

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