



Government Chemist

Draft Opinion Analytical tolerances applied to alcohol declarations

Summary

A summary is provided to assist the reader however the whole opinion must be read.

This remains a draft opinion subject to any further information coming to light; please contact michael.walker@lgcgroup with any comments.

The draft opinion is in answer to a query raised by a public analyst on a disagreement between a producer of fruit based liqueurs and the public analyst about the correct tolerance to apply to their declared alcohol content. Alcoholic drinks above a certain strength must bear a declaration of their alcoholic strength. The declaration must be accurate within certain tolerances. Two options are available, either (a) a tolerance of 1.5 % (absolute) which applies to alcoholic drinks containing macerated fruit or parts of plants, or (b) a tolerance of 0.3 % (absolute) which applies to other beverages containing more than 1.2 % by volume of alcohol.

For the reasons given below it is considered that a tolerance of 0.3 % vol. absolute is appropriate for a filtered liqueur.

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Introduction and information received

1. An enquiry was received in August 2017 on tolerances we would apply to alcohol label declarations in a referee case. This draft response was circulated to give the parties involved an opportunity to comment. The opinion is not, of course, binding on any party but does give an indication of how we would regard the matter in a referee case and any expert testimony before the courts.

2. Alcoholic drinks above a certain strength must bear a declaration of their alcoholic strength. The declaration must be accurate within certain tolerances. Two options are available, (and see paragraph 7 below) either :

(a) a tolerance of 1.5 % by volume (absolute) which applies to alcoholic drinks containing macerated fruit or parts of plants, or

(b) a tolerance of 0.3 % by volume (absolute) which applies to any other beverages containing more than 1.2 % by volume of alcohol.

3. From information received, the drinks in question are made by steeping macerated fruit in alcohol for several months, the insoluble material is then filtered off so that the drinks do not contain any visible insoluble macerated fruit. Initially the public analyst assumed the product as sold contained fruit solids and applied a tolerance of 1.5 % by volume but on realising that it was a filtered product has been applying a 0.3% by volume tolerance. The producer maintains that a 1.5 % by volume tolerance is applicable because the drink is made using macerated fruit and still contains the soluble constituents of macerated fruit when sold. Colleagues in the Association of Public Analysts were consulted, two of whom indicated that they would apply the 0.3 % by volume tolerance.

4. Any view, information or advice given by the Government Chemist is formulated with care, but is based necessarily upon the information and data provided to it as part of the enquiry. No responsibility can be taken for the use made of any view, information or advice given, whether by the enquirer or a third party. In particular, any view, information or advice given should not be taken as an authoritative statement or interpretation of the law, as this is a matter for the courts.

The applicable law

Spirit Drinks

5. Alcoholic liqueurs are defined in 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. Article 2 gives the definition of spirit drink:

1. For the purpose of this Regulation, 'spirit drink' means an alcoholic beverage:

(a) intended for human consumption;

(b) possessing particular organoleptic qualities;

(c) having a minimum alcoholic strength of 15 % vol.;

(d) having been produced:

(i) either directly:

- by the distillation, with or without added flavourings, of naturally fermented products, and/or

- by the maceration or similar processing of plant materials in ethyl alcohol of agricultural origin and/or distillates of agricultural origin, and/or spirit drinks within the meaning of this Regulation, and/or

- by the addition of flavourings, sugars or other sweetening products listed in Annex I(3) and/or other agricultural products and/or foodstuffs to ethyl alcohol of agricultural origin and/or to distillates of agricultural origin and/or to spirit drinks, within the meaning of this Regulation,

(ii) or by the mixture of a spirit drink with one or more:

- other spirit drinks, and/or

- ethyl alcohol of agricultural origin or distillates of agricultural origin, and/or

- other alcoholic beverages, and/or

- drinks.

2. However, drinks falling within CN codes 2203 , 2204 , 2205 , 2206 and 2207 shall not be considered spirit drinks.

3. The minimum alcoholic strength provided for in paragraph 1(c) shall be without prejudice to the definition for the product in category 41 in Annex II.

4. For the purpose of this Regulation the technical definitions and requirements are laid down in Annex I.

6. In Annex II of Regulation 110/2008 category 32 defines a liqueur as a spirit drink with certain minimum sugar content requirements, produced using defined ethyl alcohol to which flavourings, products of agricultural origin or foodstuffs have been added, with a minimum alcoholic strength by volume of 15 %, and sets out rules for the labelling and presentation of liqueurs. As an example category 37a describes 'Sloe-aromatised spirit drink or Pacharán' as a spirit drink obtained by the maceration of sloes (*Prunus spinosa*) in ethyl alcohol of agricultural origin, with the addition of defined natural extracts, and a minimum alcoholic strength by volume of 25 % vol.

Labelling

7. Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers requires the alcoholic strength of prepacked beverages containing more than 1.2 % by volume of alcohol to be indicated on the label. The indication must be by a figure to not more than one decimal place followed by the symbol ‘% vol.’ and preceded by ‘alcohol’ or the abbreviation ‘alc’. Positive and negative tolerances expressed in absolute values are allowed as listed in Table 1. The tolerances apply without prejudice to the tolerances deriving from the method of analysis used for determining the alcoholic strength (Article 9 (1) (k), Article 28 and Annex XII). Domestic implementation is effected in England by the Food Information Regulations (SI 2014 No 1855), with equivalent measures in the devolved countries.

Table 1: Positive and negative alcohol tolerances expressed in absolute values

Description of beverage	Positive or negative tolerance
1. Beers of CN code 2203 00 having an alcoholic strength not exceeding 5.5 % vol.; still beverages falling within CN code 2206 00 obtained from grapes	0.5 % vol.
2. Beers having an alcoholic strength exceeding 5.5 % vol.; sparkling beverages falling within CN code 2206 00 obtained from grapes, ciders, perries, fruit wines and the like, obtained from fruit other than grapes, whether or not semi-sparkling or sparkling; mead	1 % vol.
3. Beverages containing macerated fruit or parts of plants	1.5 % vol.
4. Any other beverages containing more than 1.2 % by volume of alcohol	0.3 % vol.

8. The tolerances in Table 1, reproduced from Regulation 1169/2011 Annex XII, date back in the UK to 1989 when they were introduced by the Food Labelling (Amendment) Regulations 1989¹ implementing Council Directive No. 79/112/EEC on the approximation of the laws relating to the labelling, presentation and advertising of foodstuffs, as amended by Council Directive 86/197/EEC requiring an indication of the

¹ Available, for ease of reference, at <http://www.legislation.gov.uk/uksi/1989/768/contents/made>
For other measures cited in this document readers are referred to <http://www.legislation.gov.uk/> or <http://eur-lex.europa.eu/homepage.html>

alcoholic strength of alcoholic beverages and supplemented by Commission Directive 87/250/EEC². The latter brought in the tolerances essentially as in Table 1. The recitals to Directive 87/250/EEC explain that for the purpose of establishing tolerances, due regard should be given to the nature of the different beverages concerned, the degree of variability observed and the technical difficulties involved in ensuring that the declared value is consistent with the actual value. Domestic implementation by way of the Food Labelling (Amendment) Regulations 1989 included features no longer retained in current EU and domestic regulations such as separate tolerances for community controlled wine and the inclusion of draught ciders in category 3 with a tolerance of 1.5 % vol.

Discussion

9. On the face of it, this matter turns on the interpretation of the phrase "beverages containing macerated fruit or parts of plants". Clearly a liqueur containing solids derived from macerated fruit or parts of plants may present difficulties in ensuring that the declared value is consistent with the actual value. The difficulties might include determining exact volumes, sampling for alcoholic strength determination and variability between sales units. Such difficulties are diminished or eliminated by removal of the solids by filtration. The question may then expand to include:

- (a) are there in fact products on the market to which the 1.5 % tolerance applies by way of containing macerated fruit or parts of plants so as to differentiate them from filtered or distilled products, and / or
- (b) are there other difficulties faced by a reasonably competent manufacturer in ensuring that the actual value is consistent with the declared value that are not eliminated by filtration?

10. Consultation and guidance on the 1989 Food Labelling (Amendment) Regulations is no longer readily available hence it is unclear if explicit guidance was issued on the application of tolerances for alcohol labelling. Searches of EUR-Lex elicited only one European case that touched on alcohol tolerance. This was an Italian case in which the European Court was asked for an interpretation of liability under Community law for the compliance of alcohol content of a herbal liqueur with the label declaration. The Court held that responsibility is carried by all in the production and distribution process, if they are in a position to verify the accuracy of the label particulars, a matter for the national court to establish. The opinion of the Advocate General clearly opted for a tolerance of 0.3 % vol., citing only this tolerance at paragraph 9 of the opinion in a review of the relevant law.³ There is no record of the appearance of the liqueur.

² <http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:31987L0250>

³ Case C-315/05, Lidl Italia Srl v Comune di Arcole (VR), Opinion of Advocate General Stix-Hackl delivered on 12 September 2006. <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1501771102583&uri=CELEX:62005CC0315>

11. The peer reviewed literature contains several references to spirit drink liqueurs. Several types of products are cited as being on the market including those that are distilled from maceration with fruit etc. and products that are sold with the maceration products still evident. Examples (non exhaustively) include:

- Paz *et al.*, 2014⁴ examined pigment extraction during the maceration of different fruits (raspberry, blackberry, and cranberry) into a commercially available spirit noting liquors with macerated fruits are popular alcoholic beverages in several countries. Sometimes distillation takes place e.g. Kirsh, a well-known clear, colourless brandy traditionally made by double distillation of morello cherries.
- Anjos *et al.*, 2013⁵ studied ‘*aguardente de zimbro*’ a traditional Portuguese alcoholic beverage made by the maceration of juniper berries in different distillates like arbutus spirit, marc spirit and wine spirit. Traditionally homemade for own consumption in rural families, this beverage is now sold to tourists and promoted and included in the food patrimony of the region. The alcoholic strength ranged from 37 – 48 % vol. and some products were clear in appearance but others contained particles in suspension.
- Egea *et al.*, 2016⁶ looked at Italian traditional alcoholic beverages and classified them into “Distillates”, “Liquors” consisting of macerations in grappa or in 95 % ethanol of different plant parts (fruits, seeds, roots, leaves or flowers), mixed with a syrup made with sugar and water, “Fermented beverages” low-alcohol, short-lasting beverages, or “Aromatized wines”.

12. Hence it is clear that throughout Europe a wide range of liqueurs are prepared and sold, some containing solids derived from maceration products and others derived from maceration products but sold as clear liquids. Thus any interpretation of the tolerances must allow for both types and accord the higher tolerance where it is really needed.

13. It may be that there are difficulties faced by a reasonably competent manufacturer in ensuring that the declared value is consistent with the actual value that are not eliminated by filtration. An example might be variance introduced into the determination of alcohol by distillation by any high sugars content (sugars added as such or from the fruit). However the regulations are clear that such variance would be considered in the measurement uncertainty, MU, of the method. That is to say, the MU

⁴ Paz I., Fernández A., Matías C., Pinto G. (2014): Effect of temperature on the evolution of colour during

the maceration of fruits in liquor. *Czech J. Food Sci.*, 32: 90–95.

⁵ Anjos, O., Nunes, D. and Cladeira, I., 2013. First evaluation of a traditional Portuguese alcoholic beverage prepared with maceration of juniper berries. *Ciência e Técnica Vitivinícola*, 28, pp.59-69.

⁶ Egea, T., Signorini, M.A., Ongaro, L., Rivera, D., de Castro, C.O. and Bruschi, P., 2016. Traditional alcoholic beverages and their value in the local culture of the Alta Valle del Reno, a mountain borderland between Tuscany and Emilia-Romagna (Italy). *Journal of ethnobiology and ethnomedicine*, 12(1), p.27.

should be added to or subtracted from the mean result if it falls below or above the declared value respectively. Hence it is not clear, unless more evidence is adduced by the manufacturer, how any difficulties might arise. Accordingly, a tolerance of 1.5 % vol. is appropriate for liqueurs containing macerated fruit or parts of plants as sold. But it is much less apparent why the same tolerance should apply to liqueurs that no longer contain visible macerated fruit or parts of plants, whether because of distillation or filtration.

Draft conclusions

14. Subject to any further information coming to light, for the reasons given above I consider that a tolerance of 0.3 % vol. absolute is appropriate for a filtered liqueur.

15. This draft opinion was prepared by Dr M J Walker and was circulated for comment to the Trading Standards Officer and Public Analyst originally involved and onwards to the Food Business Owner and to Defra, as the central competent authority. No further substantial comments had been raised up to the date of publication of this draft opinion.

18 December 2017