

S.I. No. 379 of 2004

**REGULATIONS**

Entitled

**Alcohol Products Tax Regulations 2004**

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Made by the Revenue Commissioners

WHEREAS Chapter 1 of Part 2 of the Finance Act 2003 (No. 3 of 2003) has not yet been brought into operation;

AND WHEREAS the Revenue Commissioners consider it expedient to make regulations relating to Chapter 1 of Part 2 of the Finance Act 2003 so as to enable provisions of that Chapter to have full force and effect immediately upon some or all of them coming into operation;

AND WHEREAS section 10(1)(b) of the Interpretation Act 1937 (No. 38 of 1937) provides for such cases;

NOW, the Revenue Commissioners, in exercise of the powers conferred on them by section 81 of the Finance Act 2003, hereby make the following regulations:

## **PART 1**

### **PRELIMINARY AND GENERAL**

#### **Citation.**

1. These Regulations may be cited as the Alcohol Products Tax Regulations 2004.

#### **Commencement.**

2. These Regulations shall come into operation on 1 July 2004.

## **Interpretation.**

3. (1) In these Regulations, except where the context otherwise requires-

“Act of 2001” means the Finance Act 2001 (No. 7 of 2001);

“Act of 2003” means the Finance Act 2003 (No. 3 of 2003);

“approved” means approved by the Commissioners;

“authorised distributor” means a person approved under Regulation 35 to receive denatured spirits for sale or distribution;

“authorised receiver” means a person approved under Regulations 35 or 40 to receive alcohol products granted relief from tax under section 77 of the Act of 2003;

“category”, in respect of an alcohol product, means its identification under such headings as the Commissioners may from time to time direct for the purposes of the returns and accounts required under these Regulations;

“classification”, in respect of an alcohol product, means its identification as beer, wine, other fermented beverage, intermediate beverage or spirits;

“denatured spirits” means spirits denatured in accordance with these Regulations;

“distiller” means an authorised warehousekeeper approved to produce spirits;

“distillery” means any tax warehouse, or any part of such warehouse designated under the terms of approval of such warehouse, approved for the production of spirits;

“EEC Alcohol Hydrometer” means the alcohol hydrometer of Class II accuracy described in the Annex to Council Directive 76/765 EEC of 27 July 1976<sup>1</sup>, bearing the EEC pattern approval sign and EEC verification mark referred to in that Directive;

“importer” means any person who imports alcohol products for commercial purposes;

“Member State” means a Member State of the Community;

“Practical Alcohol Tables” means the alchometric tables entitled “Practical Alcohol Tables, Volume 2” drawn up on the basis of the formula shown in the Annex to Directive 76/766 EEC of the 27 July 1976<sup>2</sup>, and published by the Commission of the European Communities;

“production warehouse” means a tax warehouse approved for the production of alcohol products;

“proper officer”, in relation to any duty or function referred to in these Regulations, means an officer assigned responsibility for that duty or function in any particular case;

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<sup>1</sup> OJ No. L 262 of 27.7.1976, p. 143

<sup>2</sup> OJ No. L 262 of 27.7.1976, p. 149

“records” means any books, accounts, documents or other recorded information including information in a computer or in other non-legible form;

“spoilt”, in relation to alcohol products, means any such products, which qualify for remission or repayment of tax under section 78(2) of the Act of 2003;

“suspension arrangement” means an arrangement under which alcohol products are produced, processed, held or moved, tax being suspended;

“tax” means alcohol products tax imposed by section 75 of the Act of 2003;

“tax-relieved” means granted relief from tax under section 77 of the Act of 2003;

“vessel” means any receptacle suitable for holding liquid;

“working day” means any day not being a Saturday, Sunday or public holiday.

(2) Unless the contrary intention appears, a word or expression used in these Regulations has the same meaning as it has in Chapter 1 of Part 2 of the Act of 2003.

(3) In these Regulations a reference to a Regulation or Schedule is a reference to a Regulation of, or Schedule to, these Regulations and a reference to a paragraph or subparagraph is a reference to a paragraph or subparagraph of the provision in which the reference occurs.

**PART 2**  
**WAREHOUSING**

**Applications for approval.**

4. (1) Every application for approval of any premises or place as a tax warehouse and of a person as an authorised warehousekeeper under section 109 of the Act of 2001 shall -

- (a) be in such form and manner as the Commissioners may require,
- (b) contain the particulars specified in Schedule 1, and
- (c) contain such other particulars as the Commissioners may from time to time require.

(2) A separate application shall be made in respect of each of the premises and places for which an applicant requires approval.

(3) In respect of each application for approval under this Regulation, the applicant shall show to the satisfaction of the Commissioners that the premises or place concerned is so designed, constructed and situated as to ensure the security of any tax chargeable on alcohol products produced or held in such premises or place.

**Compliance with terms of approval.**

5. (1) An authorised warehousekeeper may produce or process in a tax warehouse only alcohol products of such classification as are allowed to be produced or processed under the terms of approval of such warehouse.

(2) A premises or place may only be approved as a distillery where it contains a still of a capacity of not less than 1800 litres.

(3) The Commissioners may waive the requirement under paragraph (2) where they are satisfied that exceptional circumstances apply.

**Notification of changes to particulars of application.**

6. (1) Where an authorised warehousekeeper intends -

(a) to make any alteration affecting any of the particulars contained in an application for approval under Regulation 4, or

(b) to cease production, processing or holding of any alcohol product in a tax warehouse,

such warehousekeeper shall give the proper officer at least ten working days advance written notice of such alteration or cessation.

(2) An authorised warehousekeeper shall, following the completion of any alteration referred to in paragraph (1), immediately notify the proper officer of such completion.

(3) Where an authorised warehousekeeper is a company, the approval of such warehousekeeper and the tax warehouse shall cease upon the change of effective ownership or control of such company.

**Securing alcohol products and stock control in tax warehouse.**

7. An authorised warehousekeeper shall -

- (a) take all necessary steps to ensure that there is no unauthorised access to alcohol products in a tax warehouse,
- (b) produce promptly to a proper officer, if requested to do so by that officer, any alcohol products held in a tax warehouse,
- (c) take stock of all alcohol products in the tax warehouse as required by the Commissioners,
- (d) immediately notify the proper officer of -
  - (i) any discrepancy concerning stocks of alcohol products in a tax warehouse,



(ii) any discrepancy concerning alcohol products in the course of movement to a tax warehouse,

and retain, if required to do so by an authorised officer, any alcohol products concerned for examination.

**Removal from tax warehouse.**

8. (1) Alcohol products may be removed from a tax warehouse only -

(a) on payment of the proper tax in accordance with an arrangement approved for such payment,

(b) under a suspension arrangement, or

(c) where relief has been granted under section 77 of the Act of 2003, or under sections 104 or 105 of the Act of 2001.

(2) Where alcohol products are removed from a tax warehouse without payment of alcohol products tax, the Commissioners may impose conditions, including the giving of security by bond or otherwise, covering such removal.

**Warehouse to warehouse deliveries within the State.**

9. (1) Where alcohol products are removed from a tax warehouse for delivery under duty suspension to another tax warehouse in the State, the authorised warehousekeeper who consigns the products shall complete a delivery form approved by the Commissioners consisting of 3 copies, referred to in this Regulation as “copy 1”, “copy 2” and “copy 3”.

(2) Before the products are consigned the authorised warehousekeeper shall sign the completed delivery form, retain copy 1 and send copies 2 and 3 with the consignment to the consignee.

(3) The authorised warehousekeeper who receives the products shall endorse copy 2 and copy 3 with particulars of the products received and return copy 3 to the consignor.

(4) The authorised warehousekeeper who consigns the products shall ensure that the endorsed copy 3 is promptly returned to him or to her.

(5) A proper officer may authorise that, instead of the approved form referred to in paragraph (1), a commercial document bearing the same information, may be used.

**Tax paid on alcohol products returned to tax warehouse.**

10. Alcohol products on which tax has been paid may be returned to a tax warehouse, and the tax paid refunded or remitted, where the proper officer is satisfied that -

(a) such alcohol products have become contaminated,

- (b) the alcohol products are returned for the purpose of export or shipment for use as stores, or
- (c) exceptional circumstances apply and they consider it proper to so allow.

### **PART 3**

#### **CONDUCT OF PROCESSES**

##### **Conditions and requirements.**

11. Without prejudice to any other provisions, a producer of alcohol products shall comply with such conditions and requirements as the Commissioners may reasonably impose in relation to such production.

##### **Distillation periods.**

12. (1) Distillation shall be carried out in separate distillation periods and a distiller must record and notify the dates of commencement and conclusion of such periods in such manner as a proper officer may require.

(2) Except where a proper officer may otherwise allow, a distillation period shall not exceed five weeks.

(3) A distillation period shall commence on the date when production of the first of the wort in the process commences, and shall end when all the wort has been distilled and account has been taken of all the spirits produced.

(4) Except where a proper officer may otherwise allow, the spirits produced in any distillation period may not be mixed with any other substance until account has been taken of such spirits to the satisfaction of a proper officer.

**Distillation processes.**

13. Except where the Commissioners may otherwise allow -

- (a) no material may be used in the making of any wort or wash which prevents or inhibits the accurate determination of the gravity of such wort or wash,
- (b) a saacharometer of a an approved type must be used to determine the gravity of any wort or wash,
- (c) no yeast or other material capable of causing fermentation may be added to any wort or wash other than in a fermentation vessel or yeast production vessel, and

- (d) after the completion of the distillation process, spirits may be delivered from the spirit receiver only to a designated spirit store where account can be taken.

## **PART 4**

### **QUANTITY AND STRENGTH OF ALCOHOL PRODUCTS**

#### **Quantity of alcohol products.**

14. For tax purposes, the quantity of any alcohol product in any vessel is that determined in such manner as the Commissioners may from time to time direct.

#### **Determination of strength.**

15. The % vol of alcohol products shall be determined in accordance with Regulations 16, 17 or 18 or by such other method as the Commissioners may require or allow in any particular case.

#### **Distillation method.**

16. (1) To determine the % vol of an alcohol product by the distillation method, a definite volume of the product shall first be distilled. Distilled water shall then be added to the resulting distillate so that the volume is equal to the volume before distillation, and the density shall then be ascertained. The % vol shall be taken to be the % vol, which, in the

table contained in Schedule 2, corresponds to that density, and where the density falls between two consecutive numbers in that table, the % vol shall be determined by linear interpolation.

(2) All measurements and readings taken under paragraph (1) must be at 20° C.

(3) Where any substance other than alcohol causes a determination under paragraph (1) to be inaccurate, the Commissioners may allow such adjustments to that method as are required in order to produce an accurate determination.

#### **Gas Chromatography method.**

17. In the case of denatured alcohol products the % vol shall be determined by means of gas chromatography.

#### **Spirits - Alcohol tables method.**

18. The % volume of spirits constituted from distilled ethyl alcohol and water may be determined by means of the EEC Alcohol Hydrometer, used in conjunction with -

(a) the Practical Alcohol Tables, and

(b) a thermometer, graduated to 0.5°C, of the type required to be used with the EEC Alcohol Hydrometer in accordance with paragraph 9 of the Annex to Council Directive No. 76/765 EEC of 27 July, 1976<sup>1</sup>.

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<sup>1</sup>OJ No. L 262 of 27.7.1976, p. 143

**Discrepancy between actual strength and strength recorded.**

19. Where the strength of any alcohol product recorded in any accounts, returns or other records required by these Regulations is greater than the strength determined in accordance with these Regulations, the strength of such alcohol product shall, unless the Commissioners otherwise allow and subject to compliance with such conditions as they may think fit to impose, be taken as the strength so recorded.

**Increase in strength after taxation.**

20. Where the strength of beer or an other fermented beverage is expected to increase after packaging, the strength of the beer or other fermented beverage shall be determined as the strength it is reasonably expected to be when sold to the final consumer or otherwise supplied for consumption.

**PART 5**  
**RECORDS**

**Records to be kept.**

21. (1) Every authorised warehousekeeper and every importer shall keep, in such form as the Commissioners may require, all records specified in Schedule 3.

(2) An authorised warehousekeeper, who is the owner of a tax warehouse, shall furnish the returns and accounts (including the returns and accounts of any authorised

warehousekeepers who are tenants of the tax warehouse concerned) required by Regulations 22 to 25.

**Home consumption account.**

22. An authorised warehousekeeper shall keep a monthly account of all alcohol products delivered from the tax warehouse for consumption in the State showing, for each category of alcohol product, the quantities delivered and the rates and amounts of alcohol products tax and VAT payable.

**Consumption returns.**

23. (1) An authorised warehousekeeper shall furnish to a proper officer a return, in such form as the Commissioners may require, of the alcohol products tax and VAT payable on each category of alcohol product delivered from the tax warehouse or otherwise released for consumption during the course of a calendar month, and such return shall be received not later than -

(a) in the case of a production warehouse in which beer and cider is produced, the eighth working day of the following month, and

(b) in all other cases, the second working day of the following month.

(2) A separate return under paragraph 1 shall be completed for each tax warehouse and for every warehousekeeper who is a tenant in such tax warehouse.



(3) The return under paragraph 1 is required even where there are no deliveries or other releases for consumption during a calendar month.

**Stock accounts.**

24. (1) An authorised warehousekeeper shall keep, in such form as the Commissioners may require, a stock account of all alcohol products produced in, received into, held in and delivered from the tax warehouse.

(2) The stock account to be kept under paragraph (1) shall, in respect of each category of alcohol product, show the dates of receipts and deliveries, and in the case of a production warehouse the dates of production.

(3) An entry in the stock account shall be made not later than 12 noon on the next working day following that on which production, receipt or delivery of the alcohol products occurred.

**Stock return.**

25. (1) An authorised warehousekeeper shall, in respect of each calendar month, furnish a stock return in such form as the Commissioners may require, showing for all alcohol products of each category in a tax warehouse -

- (a) the stock balance brought forward from the previous month or other period,
  - (b) the quantities received and produced,
  - (c) the quantities delivered from the tax warehouse and the quantities otherwise disposed of, and
  - (d) the closing balance.
- (2) A return under paragraph (1) must be received not later than-
- (a) in the case of a production warehouse in which beer or cider is produced, the tenth working day of the following month, and
  - (b) in all other cases, the fifth working day of the following month.

**Alterations to records.**

26. (1) In respect of any record required to be kept by or under these Regulations, a person must not -

- (a) obliterate any entry,
- (b) make any entry which is untrue in any particular, or

(c) alter or cancel any entry except for the purpose of correcting an error.

(2) Any alterations or cancellations for the purpose of correcting an error shall only be made in a manner that does not render illegible, in part or in whole, the original entry.

**Preservation of records.**

27. Except where the Commissioners may otherwise allow or require, the records required to be kept by or under these Regulations must -

(a) be preserved for a period of not less than 6 years from the date of the last entry in such records, and

(b) be kept either at the registered place of business, or tax warehouse of the warehousekeeper or importer, or at such other place as the Commissioners may in any case allow.

**PART 6**

**PAYMENT AND REPAYMENT OF TAX**

**Rate of tax chargeable.**

28. Tax shall be chargeable on alcohol product released for consumption at the rate in force for alcohol products of that category at the time of their release.

**Deferment.**

29. (1) In order to obtain permission, under section 76(2) of the Act of 2003, to defer payment of tax, a person shall -

(a) apply in writing to the Commissioners for such permission, and

(b) provide such security as the Commissioners may require.

(2) The Commissioners may withdraw, or vary the terms of, any permission granted.

**Repayments generally.**

30. (1) Subject to such conditions as they may think fit to impose, the Commissioners may repay, in whole or in part, the tax paid on alcohol products to which sections 77 or 78 of the Act of 2003, or sections 104 or 105 of the Act of 2001 refer.

(2) A claim by a person for the repayment of tax in accordance with paragraph (1) shall -

(a) be made to a proper officer, in writing or in such form as the Commissioners may specify for the purpose, and

(b) contain the following information in relation to the alcohol product which is the subject of the claim:

- (i) the name and address of the owner,
- (ii) the classification, description, strength and quantity,
- (iii) the amount of tax, which was charged or paid,
- (iv) such other particulars as a proper officer may from time to time require in any particular case.

**Repayment of tax on spoiled alcohol products.**

31. (1) Without prejudice to the generality of Regulation 30, an application for remission or repayment of tax on an alcohol product which has become spoiled shall be made to the proper officer and shall contain the following -

- (a) the name and address of the applicant,
- (b) the name and address of any other person returning or delivering such product for destruction or disposal,
- (c) details, including any relevant identifying marks, of each vessel in which such alcohol product is returned or delivered,

- (d) the classification, description, strength and quantity of the alcohol product in each such vessel,
- (e) the amount of tax which was charged or paid on such alcohol product,
- (f) a statement, signed by the applicant, that -
  - (i) all of the alcohol product is either unmarketable or unfit for human consumption or use by reason of quality, and
  - (ii) in the case of beer and cider, that no part of the returned product consists of waste product or bottoms, other than bottoms occurring naturally in the vessel in which the beer or cider is returned, and
- (g) any other information or declaration as such officer may, in any particular case, require.

(2) Unless the Commissioners otherwise allow, and under such conditions as they may impose, any spoilt alcohol product which is the subject of a repayment application shall be retained in the vessel or vessels in which it was released for consumption until it is either destroyed or otherwise disposed of, or returned to a tax warehouse for such destruction or disposal.

(3) The amount of tax to be remitted or repaid on any spoilt alcohol product shall be determined either by reference to the particulars given in the application referred to in paragraph (1) or in accordance with a determination of classification, quantity and strength of such product by a proper officer.

(4) Subject to such conditions as the proper officer may impose, any spoilt alcohol product in respect of which an application has been allowed under this Regulation shall, at the expense of the applicant and in the presence of an officer if the proper officer so requires, be destroyed or otherwise disposed of.

## **PART 7**

### **DENATURED ALCOHOL PRODUCTS**

#### **General.**

32. (1) In order to qualify for relief from tax under section 77(b), (c) or (d) of the Act of 2003 -

- (a) spirits shall be denatured in accordance with Regulation 33,
- (b) alcohol products other than spirits shall be denatured in accordance with such process as the Commissioners may approve, and subject to such conditions as they may require, in any particular case.

### Processes for denaturing of spirits.

33. (1) (a) Mineralised methylated spirits are to be produced by mixing 90 parts by volume of spirits with 9.5 parts by volume of wood naphtha and 0.5 parts by volume of crude pyridine. To every 450 litres of this mixture there shall be added 700 milligrammes of methyl violet dye, and 0.375% (of the final volume of the mixture) petroleum oil. Ten parts methyl alcohol may be substituted for the wood naphtha and crude pyridine.
- (b) Industrial methylated spirits are to be produced by mixing 95.75 parts by volume of spirits with 4.25 parts by volume of either wood naphtha or methyl alcohol.
- (c) Spirits for use in industrial processes may also be denatured by mixing -
- (i) 99.5 parts by volume of spirits with 0.5 parts by volume of diethyl phthalate,
- (ii) 98 parts by volume of spirits with two parts by volume of n-propanol, or
- (iii) 999 parts by volume of spirits with one part by volume of tertiary butyl alcohol. To every millilitre of this mixture 10 microgrammes of Bitrex must be added.



- (d) Where it is shown to their satisfaction that spirits denatured by a process approved by another Member State have been used in the production of a product not fit for human consumption, and such product is imported into the State, the Commissioners shall approve such process.
- (e) Where it is shown to their satisfaction that spirits have been completely denatured by a process approved by another Member State, and where such process has been notified to the European Commission and accepted in accordance with paragraphs 3 and 4 of Article 27 of the Directive, the Commissioners shall approve such process.
- (f) In the case of products not fit for human consumption, the Commissioners may in any particular case approve a process other than those described at paragraphs (1)(a), (1) (b), (1)(c), (1)(d) or (1)(e) for the denaturing of the spirits used in such production.

(2) Mineralised methylated spirits fully denatured in accordance with Article 27(1) (a) of Directive 92/83/EEC<sup>1</sup> may be sold to licensed retailers.

(3) Spirits denatured in accordance with paragraph (1)(b), (1)(c) or (1)(d) may only be delivered for specific uses to authorised receivers.

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<sup>1</sup> OJ No. L316 of 31.10.1992, p. 21

(4) Except where the Commissioners may otherwise allow, the strength of spirits used in the production of denatured spirits must be at least 85% vol.

### **Deliveries**

34. (1) The Commissioners may, in any particular case, set limits for the quantities in which denatured spirit or spirits intended for denaturing may be delivered.

(2) An authorised warehousekeeper or authorised distributor may deliver denatured spirits only to authorised distributors, authorised receivers and, in the case of mineralised methylated spirits, to persons licensed to retail such spirits.

### **Authorisation of receivers and distributors of denatured spirits.**

35. (1) A person shall only be approved as an authorised receiver or an authorised distributor of denatured spirits where such person -

(a) provides such security as the Commissioners may require in any particular case, and

(b) can retain such spirits at a secure premises or place.

(2) Every application for approval as an authorised receiver or as an authorised distributor of denatured spirits must be made to the proper officer in such form and manner as the Commissioners may require, and must contain -

- (a) a full description of the type of such spirits and the annual quantity required,
- (b) the purposes for which the spirits are to be used, and
- (c) such information as the Commissioners may from time to time require.

**Delivery procedure and documentation.**

36. (1) An authorised warehousekeeper or authorised distributor may only deliver -

- (a) denatured spirits to an authorised distributor or authorised receiver upon receipt of an approved requisition form consisting of three copies, referred to in this Regulation as “copy 1”, “copy 2” and “copy 3”, duly completed and signed by such distributor or receiver and accompanied by a copy of the authorisation of such distributor or receiver, or
- (b) mineralised methylated spirits to persons licensed to retail such spirits, in quantities not greater than 800 litres, and on receipt of an approved requisition form, duly completed and signed by such retailer.

(2) Before the products are consigned the authorised warehousekeeper or authorised distributor must complete and sign the appropriate section of the requisition form, retain copy 1 and send copies 2 and 3 with the consignment to the consignee.

(3) This Regulation does not apply where the product is delivered from a tax warehouse for use in another part of the premises in which such warehouse is located and where the consignor is also the authorised receiver.

**Authorised receivers and distributors - requirements.**

37. (1) An authorised receiver of denatured spirits shall, in respect of all such spirits ensure that -

- (a) no quantity in excess of that allowed by the authorisation is requisitioned,
- (b) copy 2 and copy 3 of the requisition form referred to in Regulation 36 are endorsed with particulars of the denatured spirits received, copy 2 is retained, and copy 3 is returned to the consignor,
- (c) such spirits are used for no purpose other than that for which authorisation has been granted,

- (d) in the case of any spirits recovered in the course of usage of denatured spirits, such spirits are denatured again in an approved manner and returned to stock,
- (e) an account is kept of all such spirits received and used, and of any spirits recovered in the course of such usage, and
- (f) at the end of each year, or as the proper officer may allow or require, a return is furnished to such officer showing the opening and closing balances in the account under subparagraph (e), and all denatured spirits received and used during such period.

(2) An authorised distributor of denatured spirits shall, in respect of all denatured spirits received by such distributor, comply with the requirements set down for authorised receivers under paragraph (1)(a) and (1)(b), and shall also ensure that -

- (a) in respect of denatured spirits consigned by such distributor, any copy 3 of the form referred to in Regulation 36, endorsed and returned by the consignee under paragraph (1)(b), is retained,
- (b) an account is kept of all denatured spirits received, and distributed, and
- (c) at the end of each year, or as the proper officer may allow or require, a return is furnished to such officer showing the opening and closing

balances in the account kept under paragraph (2)(b) and all denatured spirits received and distributed during such period.

**Licensed retailers.**

38. A person licensed as a retailer of methylated spirits under section 27 of the Revenue Act 1889 may only received mineralised methylated spirits packaged for retail to the public and -

- (a) shall not hold a quantity greater than 800 litres,
- (b) shall, in respect of all such spirits received, retain copy 2 of the form referred to in Regulation 36 and maintain a record,
- (c) shall not retail to any one person at any one time a quantity greater than 20 litres.

**PART 8**

**DELIVERY OF TAX RELIEVED UNDENATURED ALCOHOL PRODUCTS**

**General.**

39. (1) The Regulations in this Part do not apply to denatured alcohol products.

- (2) An authorised warehousekeeper may only deliver tax-relieved alcohol products to authorised receivers.

**Authorisation of receivers.**

40. (1) A person shall only be approved as an authorised receiver where such person -

- (a) provides such security as the Commissioners may require in any particular case, and
- (b) can retain the tax-relieved product at a secure premises or place.

(2) Every application for approval as an authorised receiver shall be made to the proper officer in such form and manner as the Commissioners may require, and shall contain -

- (a) a full description of the type of alcohol product including the % vol, and the annual quantity required,
- (b) the purpose for which the alcohol products are to be used and the specific basis for relief under section 77 of the Act of 2003,
- (c) in the case of tax-relieved alcohol products for use in a production process under Section 77(a) of the Act of 2003, details of the

production process including formulae and the alcohol content, if any,  
of the finished product,

- (d) evidence that the alcohol products to be received can be held and used at a secure premises or place, and
- (e) such information as the Commissioners may from time to time require.

**Delivery procedure and documentation.**

41. (1) An authorised warehousekeeper may only deliver tax-relieved alcohol products on receipt of an approved requisition form, consisting of 3 copies referred to in this Regulation as “copy 1”, “copy 2” and “copy 3” duly completed and signed by the authorised receiver and accompanied by a copy of the authorisation of such receiver.

(2) Before the products are consigned the authorised warehousekeeper shall complete and sign the appropriate section of the requisition form, retain copy 1 and send copies 2 and 3 with the consignment to the consignee.

(3) This Regulation does not apply where the product is delivered from a tax warehouse for use in another part of the premises in which such warehouse is located and where the consignor is also the authorised receiver.



**Authorised receiver - requirements.**

42. An authorised receiver shall, in respect of all tax-relieved alcohol products, ensure that -

- (a) no quantity in excess of that allowed by the authorisation is requisitioned,
- (b) access is confined to persons responsible for their security and use,
- (c) such products are used solely for the purpose for which authorisation has been granted,
- (d) all copies 2 and 3 of the requisition form referred to in Regulation 41 are endorsed with particulars of the product received, copy 2 is retained, and copy 3 is returned to the consignor,
- (e) an account is kept of all such products received and used, and of any product recovered in the course of such usage,
- (f) all such products recovered are either returned to stock or disposed of in a manner approved by the proper officer, and
- (g) at the end of each year, or such other period as the proper officer may allow or require, a return is furnished to such officer, showing the opening and closing balances in the account under paragraph (e) and all such products received and used during such period.

**PART 9**  
**MISCELLANEOUS**

43. (1) Any return or declaration required by these Regulations of an authorised warehousekeeper, authorised distributor or authorised receiver shall be signed -

- (a) in the case of a natural person, by such natural person or by a person authorised in writing to sign such returns on behalf of such natural person,
- (b) in the case of a body corporate, by a director, company secretary or any person authorised in writing by one of them under the company seal to sign such returns on behalf of the body, and
- (c) in the case of an unincorporated body of persons, by one of the partners or any person authorised by one of them to sign such returns on behalf of the body.

(2) In the case of any record required to be kept by these Regulations which is held in a non-legible form, such record shall be produced in a legible form or reproduced in a permanent legible form when so required by a proper officer.

## **PART 10**

### **REVOCATIONS AND CONTINUTY**

#### **Transitional.**

44. (1) The continuity of the operation of the law relating to excise duty charged on alcohol products shall not be affected by the substitution of any for any enactment repealed or revoked by section 83 of the Act of 2003 or by Regulation 45.

(2) For the purposes of paragraph (1) -

(a) any reference in a document or enactment to a provision is to be construed, where necessary, as a reference to the corresponding provision in the revoked Regulations, and

(b) a reference in a document or enactment to a revoked Regulation is to be construed, where necessary, as a reference to the corresponding provision.

#### **Revocations.**

45. The Spirits (Strength Ascertainment) Regulations 1979 (S.I. No. 417 of 1979) are revoked.

## **SCHEDULE 1**

*(Regulation 4)*

### **Authorised Warehousekeeper and Tax Warehouse- Particulars to be included in an application for approval**

1. The name, address and VAT No. of the applicant.
2. The status of the applicant in relation to the business carried out in the premises (for example sole proprietor, partnership, limited company, etc.).
3. The address of the premises for which approval is sought.
4. A plan showing a general outline of the premises, which clearly delineates the area, for which approval is sought.
5. A detailed plan of the premises showing all permanent vessels, and all rooms and places therein and describing, in each case, its function or purpose.
6. The date from which the approval is sought.
7. Descriptions of all alcohol products to be produced, processed or held.
8. The security arrangements proposed.
9. Where the applicant is a private limited company, the particulars of the directors, shareholders and controllers of the company.

**SCHEDULE 2**

*(Regulation 16)*

TABLE SHOWING THE RELATION BETWEEN DENSITY AT 20°C (kg/m<sup>3</sup> IN AIR)  
AND ALCOHOLIC STRENGTH OF MIXTURES OF ETHANOL (ETHYL  
ALCOHOL) AND WATER EXPRESSED AS PERCENTAGE BY VOLUME AT 20°C

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
788.16	100.00	792.00	99.24
788.20	99.99	792.10	99.22
788.30	99.97	792.20	99.20
788.40	99.95	792.30	99.18
788.50	99.93	792.40	99.16
788.60	99.92	792.50	99.14
788.70	99.90	792.60	99.12
788.80	99.88	792.70	99.10
788.90	99.86	792.80	99.08
789.00	99.84	792.90	99.06
789.10	99.82	793.00	99.04
789.20	99.80	793.10	99.01
789.30	99.78	793.20	98.99
789.40	99.76	793.30	98.97
789.50	99.74	793.40	98.95
789.60	99.72	793.50	98.93
789.70	99.70	793.60	98.91
789.80	99.68	793.70	98.89
789.90	99.66	793.80	98.87
790.00	99.64	793.90	98.85
790.10	99.62	794.00	98.83
790.20	99.60	794.10	98.81
790.30	99.58	794.20	98.78
790.40	99.56	794.30	98.76
790.50	99.54	794.40	98.74
790.60	99.52	794.50	98.72
790.70	99.50	794.60	98.70
790.80	99.48	794.70	98.68
790.90	99.46	794.80	98.66
791.00	99.44	794.90	98.64
791.10	99.42	795.00	98.61
791.20	99.40	795.10	98.59
791.30	99.38	795.20	98.57
791.40	99.36	795.30	98.55
791.50	99.34	795.40	98.53
791.60	99.32	795.50	98.51
791.70	99.30	795.60	98.49
791.80	99.28	795.70	98.46
791.90	99.26	795.80	98.44
792.00	99.24	795.90	98.42
		796.00	98.40

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
796.00	98.40	800.00	97.51
796.10	98.38	800.10	97.49
796.20	98.36	800.20	97.46
796.30	98.33	800.30	97.44
796.40	98.31	800.40	97.42
796.50	98.29	800.50	97.39
796.60	98.27	800.60	97.37
796.70	98.25	800.70	97.35
796.80	98.23	800.80	97.32
796.90	98.20	800.90	97.30
797.00	98.18	801.00	97.28
797.10	98.16	801.10	97.26
797.20	98.14	801.20	97.23
797.30	98.12	801.30	97.21
797.40	98.09	801.40	97.19
797.50	98.07	801.50	97.16
797.60	98.05	801.60	97.14
797.70	98.03	801.70	97.12
797.80	98.00	801.80	97.09
797.90	97.98	801.90	97.07
798.00	97.96	802.00	97.05
798.10	97.94	802.10	97.02
798.20	97.92	802.20	97.00
798.30	97.89	802.30	96.97
798.40	97.87	802.40	96.95
798.50	97.85	802.50	96.93
798.60	97.83	802.60	96.90
798.70	97.80	802.70	96.88
798.80	97.78	802.80	96.86
798.90	97.76	802.90	96.83
799.00	97.74	803.00	96.81
799.10	97.71	803.10	96.79
799.20	97.69	803.20	96.76
799.30	97.67	803.30	96.74
799.40	97.65	803.40	96.71
799.50	97.62	803.50	96.69
799.60	97.60	803.60	96.67
799.70	97.58	803.70	96.64
799.80	97.55	803.80	96.62
799.90	97.53	803.90	96.59
800.00	97.51	804.00	96.57

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
804.00	96.57	808.00	95.59
804.10	96.55	808.10	95.56
804.20	96.52	808.20	95.54
804.30	96.50	808.30	95.51
804.40	96.47	808.40	95.49
804.50	96.45	808.50	95.46
804.60	96.43	808.60	95.43
804.70	96.40	808.70	95.41
804.80	96.38	808.80	95.38
804.90	96.35	808.90	95.36
805.00	96.33	809.00	95.33
805.10	96.30	809.10	95.31
805.20	96.28	809.20	95.28
805.30	96.26	809.30	95.26
805.40	96.23	809.40	95.23
805.50	96.21	809.50	95.21
805.60	96.18	809.60	95.18
805.70	96.16	809.70	95.15
805.80	96.13	809.80	95.13
805.90	96.11	809.90	95.10
806.00	96.08	810.00	95.08
806.10	96.06	810.10	95.05
806.20	96.03	810.20	95.03
806.30	96.01	810.30	95.00
806.40	95.99	810.40	94.97
806.50	95.96	810.50	94.95
806.60	95.94	810.60	94.92
806.70	95.91	810.70	94.90
806.80	95.89	810.80	94.87
806.90	95.86	810.90	94.85
807.00	95.84	811.00	94.82
807.10	95.81	811.10	94.79
807.20	95.79	811.20	94.77
807.30	95.76	811.30	94.74
807.40	95.74	811.40	94.72
807.50	95.71	811.50	94.69
807.60	95.69	811.60	94.66
807.70	95.66	811.70	94.64
807.80	95.64	811.80	94.61
807.90	95.61	811.90	94.58
808.00	95.59	812.00	94.56



DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
812.00	94.56	816.00	93.49
812.10	94.53	816.10	93.46
812.20	94.51	816.20	93.43
812.30	94.48	816.30	93.41
812.40	94.45	816.40	93.38
812.50	94.43	816.50	93.35
812.60	94.40	816.60	93.32
812.70	94.37	816.70	93.30
812.80	94.35	816.80	93.27
812.90	94.32	816.90	93.24
813.00	94.29	817.00	93.21
813.10	94.27	817.10	93.19
813.20	94.24	817.20	93.16
813.30	94.21	817.30	93.13
813.40	94.19	817.40	93.10
813.50	94.16	817.50	93.07
813.60	94.13	817.60	93.05
813.70	94.11	817.70	93.02
813.80	94.08	817.80	92.99
813.90	94.05	817.90	92.96
814.00	94.03	818.00	92.94
814.10	94.00	818.10	92.91
814.20	93.97	818.20	92.88
814.30	93.95	818.30	92.85
814.40	93.92	818.40	92.82
814.50	93.89	818.50	92.80
814.60	93.87	818.60	92.77
814.70	93.84	818.70	92.74
814.80	93.81	818.80	92.71
814.90	93.79	818.90	92.68
815.00	93.76	819.00	92.66
815.10	93.73	819.10	92.63
815.20	93.70	819.20	92.60
815.30	93.68	819.30	92.57
815.40	93.65	819.40	92.54
815.50	93.62	819.50	92.52
815.60	93.60	819.60	92.49
815.70	93.57	819.70	92.46
815.80	93.54	819.80	92.43
815.90	93.51	819.90	92.40
816.00	93.49	820.00	92.37

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
820.00	92.37	824.00	91.22
820.10	92.35	824.10	91.19
820.20	92.32	824.20	91.16
820.30	92.29	824.30	91.13
820.40	92.26	824.40	91.11
820.50	92.23	824.50	91.08
820.60	92.20	824.60	91.05
820.70	92.18	824.70	91.02
820.80	92.15	824.80	90.99
820.90	92.12	824.90	90.96
821.00	92.09	825.00	90.93
821.10	92.06	825.10	90.90
821.20	92.03	825.20	90.87
821.30	92.00	825.30	90.84
821.40	91.98	825.40	90.81
821.50	91.95	825.50	90.78
821.60	91.92	825.60	90.75
821.70	91.89	825.70	90.72
821.80	91.86	825.80	90.69
821.90	91.83	825.90	90.66
822.00	91.80	826.00	90.63
822.10	91.77	826.10	90.60
822.20	91.75	826.20	90.57
822.30	91.72	826.30	90.54
822.40	91.69	826.40	90.51
822.50	91.66	826.50	90.48
822.60	91.63	826.60	90.45
822.70	91.60	826.70	90.42
822.80	91.57	826.80	90.39
822.90	91.54	826.90	90.36
823.00	91.51	827.00	90.33
823.10	91.49	827.10	90.30
823.20	91.46	827.20	90.27
823.30	91.43	827.30	90.24
823.40	91.40	827.40	90.21
823.50	91.37	827.50	90.18
823.60	91.34	827.60	90.15
823.70	91.31	827.70	90.12
823.80	91.28	827.80	90.09
823.90	91.25	827.90	90.06
824.00	91.22	828.00	90.03

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
828.00	90.03	832.00	88.81
828.10	90.00	832.10	88.77
828.20	89.97	832.20	88.74
828.30	89.94	832.30	88.71
828.40	89.91	832.40	88.68
828.50	89.88	832.50	88.65
828.60	89.85	832.60	88.62
828.70	89.82	832.70	88.59
828.80	89.79	832.80	88.56
828.90	89.76	832.90	88.52
829.00	89.73	833.00	88.49
829.10	89.70	833.10	88.46
829.20	89.67	833.20	88.43
829.30	89.64	833.30	88.40
829.40	89.61	833.40	88.37
829.50	89.58	833.50	88.34
829.60	89.55	833.60	88.30
829.70	89.51	833.70	88.27
829.80	89.48	833.80	88.24
829.90	89.45	833.90	88.21
830.00	89.42	834.00	88.18
830.10	89.39	834.10	88.15
830.20	89.36	834.20	88.12
830.30	89.33	834.30	88.08
830.40	89.30	834.40	88.05
830.50	89.27	834.50	88.02
830.60	89.24	834.60	87.99
830.70	89.21	834.70	87.96
830.80	89.18	834.80	87.93
830.90	89.15	834.90	87.89
831.00	89.12	835.00	87.86
831.10	89.08	835.10	87.83
831.20	89.05	835.20	87.80
831.30	89.02	835.30	87.77
831.40	88.99	835.40	87.74
831.50	88.96	835.50	87.70
831.60	88.93	835.60	87.67
831.70	88.90	835.70	87.64
831.80	88.87	835.80	87.61
831.90	88.84	835.90	87.58
832.00	88.81	836.00	87.54

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
836.00	87.54	840.00	86.25
836.10	87.51	840.10	86.22
836.20	87.48	840.20	86.18
836.30	87.45	840.30	86.15
836.40	87.42	840.40	86.12
836.50	87.38	840.50	86.09
836.60	87.35	840.60	86.05
836.70	87.32	840.70	86.02
836.80	87.29	840.80	85.99
836.90	87.26	840.90	85.96
837.00	87.22	841.00	85.92
837.10	87.19	841.10	85.89
837.20	87.16	841.20	85.86
837.30	87.13	841.30	85.82
837.40	87.09	841.40	85.79
837.50	87.06	841.50	85.76
837.60	87.03	841.60	85.72
837.70	87.00	841.70	85.69
837.80	86.97	841.80	85.66
837.90	86.93	841.90	85.63
838.00	86.90	842.00	85.59
838.10	86.87	842.10	85.56
838.20	86.84	842.20	85.53
838.30	86.80	842.30	85.49
838.40	86.77	842.40	85.46
838.50	86.74	842.50	85.43
838.60	86.71	842.60	85.39
838.70	86.67	842.70	85.36
838.80	86.64	842.80	85.33
838.90	86.61	842.90	85.29
839.00	86.58	843.00	85.26
839.10	86.54	843.10	85.23
839.20	86.51	843.20	85.19
839.30	86.48	843.30	85.16
839.40	86.45	843.40	85.13
839.50	86.41	843.50	85.09
839.60	86.38	843.60	85.06
839.70	86.35	843.70	85.03
839.80	86.32	843.80	84.99
839.90	86.28	843.90	84.96
840.00	86.25	844.00	84.93

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
844.00	84.93	848.00	83.57
844.10	84.89	848.10	83.54
844.20	84.86	848.20	83.50
844.30	84.83	848.30	83.47
844.40	84.79	848.40	83.44
844.50	84.76	848.50	83.40
844.60	84.73	848.60	83.37
844.70	84.69	848.70	83.33
844.80	84.66	848.80	83.30
844.90	84.62	848.90	83.26
845.00	84.59	849.00	83.23
845.10	84.56	849.10	83.20
845.20	84.52	849.20	83.16
845.30	84.49	849.30	83.13
845.40	84.46	849.40	83.09
845.50	84.42	849.50	83.06
845.60	84.39	849.60	83.02
845.70	84.35	849.70	82.99
845.80	84.32	849.80	82.96
845.90	84.29	849.90	82.92
846.00	84.25	850.00	82.89
846.10	84.22	850.10	82.85
846.20	84.19	850.20	82.82
846.30	84.15	850.30	82.78
846.40	84.12	850.40	82.75
846.50	84.08	850.50	82.71
846.60	84.05	850.60	82.68
846.70	84.02	850.70	82.64
846.80	83.98	850.80	82.61
846.90	83.95	850.90	82.57
847.00	83.91	851.00	82.54
847.10	83.88	851.10	82.51
847.20	83.85	851.20	82.47
847.30	83.81	851.30	82.44
847.40	83.78	851.40	82.40
847.50	83.74	851.50	82.37
847.60	83.71	851.60	82.33
847.70	83.68	851.70	82.30
847.80	83.64	851.80	82.26
847.90	83.61	851.90	82.23
848.00	83.57	852.00	82.19

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
852.00	82.19	856.00	80.78
852.10	82.16	856.10	80.75
852.20	82.12	856.20	80.71
852.30	82.09	856.30	80.68
852.40	82.05	856.40	80.64
852.50	82.02	856.50	80.61
852.60	81.98	856.60	80.57
852.70	81.95	856.70	80.54
852.80	81.91	856.80	80.50
852.90	81.88	856.90	80.46
853.00	81.84	857.00	80.43
853.10	81.81	857.10	80.39
853.20	81.77	857.20	80.36
853.30	81.74	857.30	80.32
853.40	81.70	857.40	80.29
853.50	81.67	857.50	80.25
853.60	81.63	857.60	80.21
853.70	81.60	857.70	80.18
853.80	81.56	857.80	80.14
853.90	81.53	857.90	80.11
854.00	81.49	858.00	80.07
854.10	81.46	858.10	80.04
854.20	81.42	858.20	80.00
845.30	81.39	858.30	79.96
854.40	81.35	858.40	79.93
854.50	81.32	858.50	79.89
854.60	81.28	858.60	79.86
854.70	81.25	858.70	79.82
854.80	81.21	858.80	79.78
854.90	81.17	858.90	79.75
855.00	81.14	859.00	79.71
855.10	81.10	859.10	79.68
855.20	81.07	859.20	79.64
855.30	81.03	859.30	79.60
855.40	81.00	859.40	79.57
855.50	80.96	859.50	79.53
855.60	80.93	859.60	79.50
855.70	80.89	859.70	79.46
855.80	80.86	859.80	79.42
855.90	80.82	859.90	79.39
856.00	80.78	860.00	79.35

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
860.00	79.35	864.00	77.89
860.10	79.31	864.10	77.85
860.20	79.28	864.20	77.82
860.30	79.24	864.30	77.78
860.40	79.21	864.40	77.74
860.50	79.17	864.50	77.71
860.60	79.13	864.60	77.67
860.70	79.10	864.70	77.63
860.80	79.06	864.80	77.60
860.90	79.02	864.90	77.56
861.00	78.99	865.00	77.52
861.10	78.95	865.10	77.49
861.20	78.92	865.20	77.45
861.30	78.88	865.30	77.41
861.40	78.84	865.40	77.37
861.50	78.81	865.50	77.34
861.60	78.77	865.60	77.30
861.70	78.73	865.70	77.26
861.80	78.70	865.80	77.23
861.90	78.66	865.90	77.19
862.00	78.62	866.00	77.15
862.10	78.59	866.10	77.11
862.20	78.55	866.20	77.08
862.30	78.52	866.30	77.04
862.40	78.48	866.40	77.00
862.50	78.44	866.50	76.97
862.60	78.41	866.60	76.93
862.70	78.37	866.70	76.89
862.80	78.33	866.80	76.85
862.90	78.30	866.90	76.82
863.00	78.26	867.00	76.78
863.10	78.22	867.10	76.74
863.20	78.19	867.20	76.71
863.30	78.15	867.30	76.67
863.40	78.11	867.40	76.63
863.50	78.08	867.50	76.59
863.60	78.04	867.60	76.56
863.70	78.00	867.70	76.52
863.80	77.97	867.80	76.48
863.90	77.93	867.90	76.44
864.00	77.89	868.00	76.41

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
868.00	76.41	872.00	74.89
868.10	76.37	872.10	74.86
868.20	76.33	872.20	74.82
868.30	76.29	872.30	74.78
868.40	76.26	872.40	74.74
868.50	76.22	872.50	74.70
868.60	76.18	872.60	74.67
868.70	76.14	872.70	74.63
868.80	76.11	872.80	74.59
868.90	76.07	872.90	74.55
869.00	76.03	873.00	74.51
869.10	75.99	873.10	74.47
869.20	75.96	873.20	74.44
869.30	75.92	873.30	74.40
869.40	75.88	873.40	74.36
869.50	75.84	873.50	74.32
869.60	75.80	873.60	74.28
869.70	75.77	873.70	74.24
869.80	75.73	873.80	74.21
869.90	75.69	873.90	74.17
870.00	75.65	874.00	74.13
870.10	75.62	874.10	74.09
870.20	75.58	874.20	74.05
870.30	75.54	874.30	74.01
870.40	75.50	874.40	73.98
870.50	75.46	874.50	73.94
870.60	75.43	874.60	73.90
870.70	75.39	874.70	73.86
870.80	75.35	874.80	73.82
870.90	75.31	874.90	73.78
871.00	75.28	875.00	73.74
871.10	75.24	875.10	73.71
871.20	75.20	875.20	73.67
871.30	75.16	875.30	73.63
871.40	75.12	875.40	73.59
871.50	75.09	875.50	73.55
871.60	75.05	875.60	73.51
871.70	75.01	875.70	73.47
871.80	74.97	875.80	73.43
871.90	74.93	875.90	73.40
872.00	74.89	876.00	73.36



DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
876.00	73.36	880.00	71.79
876.10	73.32	880.10	71.75
876.20	73.28	880.20	71.71
876.30	73.24	880.30	71.67
876.40	73.20	880.40	71.63
876.50	73.16	880.50	71.59
876.60	73.12	880.60	71.55
876.70	73.08	880.70	71.51
876.80	73.05	880.80	71.48
876.90	73.01	880.90	71.44
877.00	72.97	881.00	71.40
877.10	72.93	881.10	71.36
877.20	72.89	881.20	71.32
877.30	72.85	881.30	71.28
877.40	72.81	881.40	71.24
877.50	72.77	881.50	71.20
877.60	72.73	881.60	71.16
877.70	72.69	881.70	71.12
877.80	72.66	881.80	71.08
877.90	72.62	881.90	71.04
878.00	72.58	882.00	71.00
878.10	72.54	882.10	70.96
878.20	72.50	882.20	70.92
878.30	72.46	882.30	70.88
878.40	72.42	882.40	70.84
878.50	72.38	882.50	70.80
878.60	72.34	882.60	70.76
878.70	72.30	882.70	70.72
878.80	72.26	882.80	70.68
878.90	72.22	882.90	70.64
879.00	72.19	883.00	70.60
879.10	72.15	883.10	70.56
879.20	72.11	883.20	70.52
879.30	72.07	883.30	70.48
879.40	72.03	883.40	70.44
879.50	71.99	883.50	70.40
879.60	71.95	883.60	70.36
879.70	71.91	883.70	70.32
879.80	71.87	883.80	70.28
879.90	71.83	883.90	70.24
880.00	71.79	884.00	70.20

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
884.00	70.20	888.00	68.58
884.10	70.16	888.10	68.54
884.20	70.12	888.20	68.50
884.30	70.08	888.30	68.46
884.40	70.04	888.40	68.41
884.50	70.00	888.50	68.37
884.60	69.96	888.60	68.33
884.70	69.92	888.70	68.29
884.80	69.88	888.80	68.25
884.90	69.84	888.90	68.21
885.00	69.80	889.00	68.17
885.10	69.76	889.10	68.13
885.20	69.72	889.20	68.09
885.30	69.68	889.30	68.04
885.40	69.63	889.40	68.00
885.50	69.59	889.50	67.96
885.60	69.55	889.60	67.92
885.70	69.51	889.70	67.88
885.80	69.47	889.80	67.84
885.90	69.43	889.90	67.80
886.00	69.39	890.00	67.76
886.10	69.35	890.10	67.72
886.20	69.31	890.20	67.67
886.30	69.27	890.30	67.63
886.40	69.23	890.40	67.59
886.50	69.19	890.50	67.55
886.60	69.15	890.60	67.51
886.70	69.11	890.70	67.47
886.80	69.07	890.80	67.43
886.90	69.03	890.90	67.38
887.00	68.99	891.00	67.34
887.10	68.95	891.10	67.30
887.20	68.90	891.20	67.26
887.30	68.86	891.30	67.22
887.40	68.82	891.40	67.18
887.50	68.78	891.50	67.14
887.60	68.74	891.60	67.09
887.70	68.70	891.70	67.05
887.80	68.66	891.80	67.01
887.90	68.62	891.90	66.97
888.00	68.58	892.00	66.93

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
892.00	66.93	896.00	65.25
892.10	66.89	896.10	65.21
892.20	66.84	896.20	65.16
892.30	66.80	896.30	65.12
892.40	66.76	896.40	65.08
892.50	66.72	896.50	65.04
892.60	66.68	896.60	64.99
892.70	66.64	896.70	64.95
892.80	66.59	896.80	64.91
892.90	66.55	896.90	64.87
893.00	66.51	897.00	64.82
893.10	66.47	897.10	64.78
893.20	66.43	897.20	64.74
893.30	66.39	897.30	64.70
893.40	66.34	897.40	64.65
893.50	66.30	897.50	64.61
893.60	66.26	897.60	64.57
893.70	66.22	897.70	64.53
893.80	66.18	897.80	64.48
893.90	66.13	897.90	64.44
894.00	66.09	898.00	64.40
894.10	66.05	898.10	64.35
894.20	66.01	898.20	64.31
894.30	65.97	898.30	64.27
894.40	65.92	898.40	64.23
894.50	65.88	898.50	64.18
894.60	65.84	898.60	64.14
894.70	65.80	898.70	64.10
894.80	65.76	898.80	64.05
894.90	65.71	898.90	64.01
895.00	65.67	899.00	63.97
895.10	65.63	899.10	63.93
895.20	65.59	899.20	63.88
895.30	65.54	899.30	63.84
895.40	65.50	899.40	63.80
895.50	65.46	899.50	63.75
895.60	65.42	899.60	63.71
895.70	65.38	899.70	63.67
895.80	65.33	899.80	63.62
895.90	65.29	899.90	63.58
896.00	65.25	900.00	63.54

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
900.00	63.54	904.00	61.80
900.10	63.50	904.10	61.75
900.20	63.45	904.20	61.71
900.30	63.41	904.30	61.67
900.40	63.37	904.40	61.62
900.50	63.32	904.50	61.58
900.60	63.28	904.60	61.53
900.70	63.24	904.70	61.49
900.80	63.19	904.80	61.45
900.90	63.15	904.90	61.40
901.00	63.11	905.00	61.36
901.10	63.06	905.10	61.31
901.20	63.02	905.20	61.27
901.30	62.98	905.30	61.22
901.40	62.93	905.40	61.18
901.50	62.89	905.50	61.14
901.60	62.85	905.60	61.09
901.70	62.80	905.70	61.05
901.80	62.76	905.80	61.00
901.90	62.72	905.90	60.96
902.00	62.67	906.00	60.91
902.10	62.63	906.10	60.87
902.20	62.58	906.20	60.83
902.30	62.54	906.30	60.78
902.40	62.50	906.40	60.74
902.50	62.45	906.50	60.69
902.60	62.41	906.60	60.65
902.70	62.37	906.70	60.60
902.80	62.32	906.80	60.56
902.90	62.28	906.90	60.51
903.00	62.24	907.00	60.47
903.10	62.19	907.10	60.43
903.20	62.15	907.20	60.38
903.30	62.10	907.30	60.34
903.40	62.06	907.40	60.29
903.50	62.02	907.50	60.25
903.60	61.97	907.60	60.20
903.70	61.93	907.70	60.16
903.80	61.89	907.80	60.11
903.90	61.84	907.90	60.07
904.00	61.80	908.00	60.02

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
908.00	60.02	912.00	58.21
908.10	59.98	912.10	58.17
908.20	59.93	912.20	58.12
908.30	59.89	912.30	58.08
908.40	59.84	912.40	58.03
908.50	59.80	912.50	57.98
908.60	59.75	912.60	57.94
908.70	59.71	912.70	57.89
908.80	59.66	912.80	57.85
908.90	59.62	912.90	57.80
909.00	59.57	913.00	57.76
909.10	59.53	913.10	57.71
909.20	59.48	913.20	57.66
909.30	59.44	913.30	57.62
909.40	59.39	913.40	57.57
909.50	59.35	913.50	57.53
909.60	59.30	913.60	57.48
909.70	59.26	913.70	57.43
909.80	59.21	913.80	57.39
909.90	59.17	913.90	57.34
910.00	59.12	914.00	57.29
910.10	59.08	914.10	57.25
910.20	59.03	914.20	57.20
910.30	58.99	914.30	57.16
910.40	58.94	914.40	57.11
910.50	58.90	914.50	57.06
910.60	58.85	914.60	57.02
910.70	58.81	914.70	56.97
910.80	58.76	914.80	56.92
910.90	58.71	914.90	56.88
911.00	58.67	915.00	56.83
911.10	58.62	915.10	56.79
911.20	58.58	915.20	56.74
911.30	58.53	915.30	56.69
911.40	58.49	915.40	56.65
911.50	58.44	915.50	56.60
911.60	58.40	915.60	56.55
911.70	58.35	915.70	56.51
911.80	58.30	915.80	56.46
911.90	58.26	915.90	56.41
912.00	58.21	916.00	56.37

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
916.00	56.37	920.00	54.48
916.10	56.32	920.10	54.43
916.20	56.27	920.20	54.38
916.30	56.23	920.30	54.33
916.40	56.18	920.40	54.28
916.50	56.13	920.50	54.24
916.60	56.09	920.60	54.19
916.70	56.04	920.70	54.14
916.80	55.99	920.80	54.09
916.90	55.94	920.90	54.04
917.00	55.90	921.00	54.00
917.10	55.85	921.10	53.95
917.20	55.80	921.20	53.90
917.30	55.76	921.30	53.85
917.40	55.71	921.40	53.80
917.50	55.66	921.50	53.76
917.60	55.62	921.60	53.71
917.70	55.57	921.70	53.66
917.80	55.52	921.80	53.61
917.90	55.47	921.90	53.56
918.00	55.43	922.00	53.51
918.10	55.38	922.10	53.47
918.20	55.33	922.20	53.42
918.30	55.28	922.30	53.37
918.40	55.24	922.40	53.32
918.50	55.19	922.50	53.27
918.60	55.14	922.60	53.22
918.70	55.10	922.70	53.17
918.80	55.05	922.80	53.13
918.90	55.00	922.90	53.08
919.00	54.95	923.00	53.03
919.10	54.91	923.10	52.98
919.20	54.86	923.20	52.93
919.30	54.81	923.30	52.88
919.40	54.76	923.40	52.83
919.50	54.72	923.50	52.78
919.60	54.67	923.60	52.74
919.70	54.62	923.70	52.69
919.80	54.57	923.80	52.64
919.90	54.52	923.90	52.59
920.00	54.48	924.00	52.54

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
924.00	52.54	928.00	50.55
924.10	52.49	928.10	50.50
924.20	52.44	928.20	50.45
924.30	52.39	928.30	50.40
924.40	52.34	928.40	50.35
924.50	52.29	928.50	50.30
924.60	52.24	928.60	50.24
924.70	52.20	928.70	50.19
924.80	52.15	928.80	50.14
924.90	52.10	928.90	50.09
925.00	52.05	929.00	50.04
925.10	52.00	929.10	49.99
925.20	51.95	929.20	49.94
925.30	51.90	929.30	49.89
925.40	51.85	929.40	49.84
925.50	51.80	929.50	49.79
925.60	51.75	929.60	49.74
925.70	51.70	929.70	49.68
925.80	51.65	929.80	49.63
925.90	51.60	929.90	49.58
926.00	51.55	930.00	49.53
926.10	51.50	930.10	49.48
926.20	51.45	930.20	49.43
926.30	51.40	930.30	49.38
926.40	51.35	930.40	49.32
926.50	51.30	930.50	49.27
926.60	51.25	930.60	49.22
926.70	51.20	930.70	49.17
926.80	51.15	930.80	49.12
926.90	51.10	930.90	49.07
927.00	51.05	931.00	49.01
927.10	51.00	931.10	48.96
927.20	50.95	931.20	48.91
927.30	50.90	931.30	48.86
927.40	50.85	931.40	48.81
927.50	50.80	931.50	48.76
927.60	50.75	931.60	48.70
927.70	50.70	931.70	48.65
927.80	50.65	931.80	48.60
927.90	50.60	931.90	48.55
928.00	50.55	932.00	48.49

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
932.00	48.49	936.00	46.37
932.10	48.44	936.10	46.31
932.20	48.39	936.20	46.26
932.30	48.34	936.30	46.20
932.40	48.29	936.40	46.15
932.50	48.23	936.50	46.09
932.60	48.18	936.60	46.04
932.70	48.13	936.70	45.98
932.80	48.08	936.80	45.93
932.90	48.02	936.90	45.87
933.00	47.97	937.00	45.82
933.10	47.92	937.10	45.77
933.20	47.86	937.20	45.71
933.30	47.81	937.30	45.66
933.40	47.76	937.40	45.60
933.50	47.71	937.50	45.54
933.60	47.65	937.60	45.49
933.70	47.60	937.70	45.43
933.80	47.55	937.80	45.38
933.90	47.49	937.90	45.32
934.00	47.44	938.00	45.27
934.10	47.39	938.10	45.21
934.20	47.33	938.20	45.16
934.30	47.28	938.30	45.10
934.40	47.23	938.40	45.05
934.50	47.17	938.50	44.99
934.60	47.12	938.60	44.93
934.70	47.07	938.70	44.88
934.80	47.01	938.80	44.82
934.90	46.96	938.90	44.77
935.00	46.91	939.00	44.71
935.10	46.85	939.10	44.65
935.20	46.80	939.20	44.60
935.30	46.74	939.30	44.54
935.40	46.69	939.40	44.49
935.50	46.64	939.50	44.43
935.60	46.58	939.60	44.37
935.70	46.53	939.70	44.32
935.80	46.47	939.80	44.26
935.90	46.42	939.90	44.20
936.00	46.37	940.00	44.15



DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
940.00	44.15	944.00	41.82
940.10	44.09	944.10	41.76
940.20	44.03	944.20	41.70
940.30	43.98	944.30	41.64
940.40	43.92	944.40	41.58
940.50	43.86	944.50	41.52
940.60	43.81	944.60	41.46
940.70	43.75	944.70	41.40
940.80	43.69	944.80	41.34
940.90	43.63	944.90	41.28
941.00	43.58	945.00	41.22
941.10	43.52	945.10	41.16
941.20	43.46	945.20	41.10
941.30	43.40	945.30	41.04
941.40	43.35	945.40	40.98
941.50	43.29	945.50	40.92
941.60	43.23	945.60	40.86
941.70	43.17	945.70	40.79
941.80	43.11	945.80	40.73
941.90	43.06	945.90	40.67
942.00	43.00	946.00	40.61
942.10	42.94	946.10	40.55
942.20	42.88	946.20	40.49
942.30	42.82	946.30	40.43
942.40	42.77	946.40	40.36
942.50	42.71	946.50	40.30
942.60	42.65	946.60	40.24
942.70	42.59	946.70	40.18
942.80	42.53	946.80	40.12
942.90	42.47	946.90	40.05
943.00	42.41	947.00	39.99
943.10	42.35	947.10	39.93
943.20	42.30	947.20	39.87
943.30	42.24	947.30	39.80
943.40	42.18	947.40	39.74
943.50	42.12	947.50	39.68
943.60	42.06	947.60	39.62
943.70	42.00	947.70	39.55
943.80	41.94	947.80	39.49
943.90	41.88	947.90	39.43
944.00	41.82	948.00	39.36

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
948.00	39.36	952.00	36.75
948.10	39.30	952.10	36.68
948.20	39.24	952.20	36.61
948.30	39.17	952.30	36.55
948.40	39.11	952.40	36.48
948.50	39.05	952.50	36.41
948.60	38.98	952.60	36.34
948.70	38.92	952.70	36.27
948.80	38.85	952.80	36.20
948.90	38.79	952.90	36.14
949.00	38.73	953.00	36.07
949.10	38.66	953.10	36.00
949.20	38.60	953.20	35.93
949.30	38.53	953.30	35.86
949.40	38.47	953.40	35.79
949.50	38.40	953.50	35.72
949.60	38.34	953.60	35.65
949.70	38.27	953.70	35.58
949.80	38.21	953.80	35.51
949.90	38.14	953.90	35.44
950.00	38.08	954.00	35.37
950.10	38.01	954.10	35.30
950.20	37.95	954.20	35.23
950.30	37.88	954.30	35.16
950.40	37.82	954.40	35.09
950.50	37.75	954.50	35.02
950.60	37.68	954.60	34.95
950.70	37.62	954.70	34.88
950.80	37.55	954.80	34.81
950.90	37.49	954.90	34.74
951.00	37.42	955.00	34.67
951.10	37.35	955.10	34.59
951.20	37.29	955.20	34.52
951.30	37.22	955.30	34.45
951.40	37.15	955.40	34.38
951.50	37.09	955.50	34.31
951.60	37.02	955.60	34.23
951.70	36.95	955.70	34.16
951.80	36.88	955.80	34.09
951.90	36.82	955.90	34.02
952.00	36.75	956.00	33.95

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
956.00	33.95	960.00	30.92
956.10	33.87	960.10	30.84
956.20	33.80	960.20	30.76
956.30	33.73	960.30	30.68
956.40	33.65	960.40	30.60
956.50	33.58	960.50	30.52
956.60	33.51	960.60	30.44
956.70	33.43	960.70	30.36
956.80	33.36	960.80	30.28
956.90	33.28	960.90	30.20
957.00	33.21	961.00	30.12
957.10	33.14	961.10	30.04
957.20	33.06	961.20	29.96
957.30	32.99	961.30	29.88
957.40	32.91	961.40	29.80
957.50	32.84	961.50	29.72
957.60	32.76	961.60	29.64
957.70	32.69	961.70	29.56
957.80	32.61	961.80	29.48
957.90	32.54	961.90	29.40
958.00	32.46	962.00	29.31
958.10	32.39	962.10	29.23
958.20	32.31	962.20	29.15
958.30	32.23	962.30	29.07
958.40	32.16	962.40	28.99
958.50	32.08	962.50	28.90
958.60	32.00	962.60	28.82
958.70	31.93	962.70	28.74
958.80	31.85	962.80	28.66
958.90	31.77	962.90	28.57
959.00	31.70	963.00	28.49
959.10	31.62	963.10	28.41
959.20	31.54	963.20	28.32
959.30	31.47	963.30	28.24
959.40	31.39	963.40	28.15
959.50	31.31	963.50	28.07
959.60	31.23	963.60	27.99
959.70	31.15	963.70	27.90
959.80	31.08	963.80	27.82
959.90	31.00	963.90	27.73
960.00	30.92	964.00	27.65

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
964.00	27.65	968.00	24.14
964.10	27.56	968.10	24.05
964.20	27.48	968.20	23.96
964.30	27.39	968.30	23.87
964.40	27.31	968.40	23.78
964.50	27.22	968.50	23.69
964.60	27.14	968.60	23.60
964.70	27.05	968.70	23.51
964.80	26.96	968.80	23.42
964.90	26.88	968.90	23.33
965.00	26.79	969.00	23.24
965.10	26.71	969.10	23.14
965.20	26.62	969.20	23.05
965.30	26.53	969.30	22.96
965.40	26.45	969.40	22.87
965.50	26.36	969.50	22.78
965.60	26.27	969.60	22.69
965.70	26.18	969.70	22.60
965.80	26.10	969.80	22.50
965.90	26.01	969.90	22.41
966.00	25.92	970.00	22.32
966.10	25.83	970.10	22.23
966.20	25.75	970.20	22.14
966.30	25.66	970.30	22.04
966.40	25.57	970.40	21.95
966.50	25.48	970.50	21.86
966.60	25.39	970.60	21.77
966.70	25.31	970.70	21.67
966.80	25.22	970.80	21.58
966.90	25.13	970.90	21.49
967.00	25.04	971.00	21.40
967.10	24.95	971.10	21.30
967.20	24.86	971.20	21.21
967.30	24.77	971.30	21.12
967.40	24.68	971.40	21.03
967.50	24.59	971.50	20.93
967.60	24.50	971.60	20.84
967.70	24.41	971.70	20.75
967.80	24.32	971.80	20.65
967.90	24.23	971.90	20.56
968.00	24.14	972.00	20.47

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
972.00	20.47	976.00	16.75
972.10	20.38	976.10	16.66
972.20	20.28	976.20	16.57
972.30	20.19	976.30	16.48
972.40	20.10	976.40	16.38
972.50	20.00	976.50	16.29
972.60	19.91	976.60	16.20
972.70	19.82	976.70	16.11
972.80	19.72	976.80	16.02
972.90	19.63	976.90	15.93
973.00	19.54	977.00	15.83
973.10	19.44	977.10	15.74
973.20	19.35	977.20	15.65
973.30	19.26	977.30	15.56
973.40	19.16	977.40	15.47
973.50	19.07	977.50	15.38
973.60	18.98	977.60	15.29
973.70	18.89	977.70	15.20
973.80	18.79	977.80	15.11
973.90	18.70	977.90	15.02
974.00	18.61	978.00	14.93
974.10	18.51	978.10	14.83
974.20	18.42	978.20	14.74
974.30	18.33	978.30	14.65
974.40	18.23	978.40	14.56
974.50	18.14	978.50	14.47
974.60	18.05	978.60	14.38
974.70	17.96	978.70	14.29
974.80	17.86	978.80	14.20
974.90	17.77	978.90	14.12
975.00	17.68	979.00	14.03
975.10	17.58	979.10	13.94
975.20	17.49	979.20	13.85
975.30	17.40	979.30	13.76
975.40	17.31	979.40	13.67
975.50	17.21	979.50	13.58
975.60	17.12	979.60	13.49
975.70	17.03	979.70	13.40
975.80	16.94	979.80	13.31
975.90	16.85	979.90	13.23
976.00	16.75	980.00	13.14

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
980.00	13.14	984.00	9.72
980.10	13.05	984.10	9.63
980.20	12.96	984.20	9.55
980.30	12.87	984.30	9.47
980.40	12.79	984.40	9.39
980.50	12.70	984.50	9.30
980.60	12.61	984.60	9.22
980.70	12.52	984.70	9.14
980.80	12.44	984.80	9.06
980.90	12.35	984.90	8.98
981.00	12.26	985.00	8.90
981.10	12.18	985.10	8.81
981.20	12.09	985.20	8.73
981.30	12.00	985.30	8.65
981.40	11.92	985.40	8.57
981.50	11.83	985.50	8.49
981.60	11.74	985.60	8.41
981.70	11.66	985.70	8.33
981.80	11.57	985.80	8.25
981.90	11.49	985.90	8.17
982.00	11.40	986.00	8.09
982.10	11.31	986.10	8.01
982.20	11.23	986.20	7.93
982.30	11.14	986.30	7.85
982.40	11.06	986.40	7.77
982.50	10.97	986.50	7.69
982.60	10.89	986.60	7.61
982.70	10.80	986.70	7.53
982.80	10.72	986.80	7.45
982.90	10.64	986.90	7.38
983.00	10.55	987.00	7.30
983.10	10.47	987.10	7.22
983.20	10.38	987.20	7.14
983.30	10.30	987.30	7.06
983.40	10.22	987.40	6.98
983.50	10.13	987.50	6.91
983.60	10.05	987.60	6.83
983.70	9.97	987.70	6.75
983.80	9.88	987.80	6.67
983.90	9.80	987.90	6.60
984.00	9.72	988.00	6.52

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
988.00	6.52	992.00	3.54
988.10	6.44	992.10	3.47
988.20	6.36	992.20	3.40
988.30	6.29	992.30	3.32
988.40	6.21	992.40	3.25
988.50	6.13	992.50	3.18
988.60	6.06	992.60	3.11
988.70	5.98	992.70	3.04
988.80	5.91	992.80	2.97
988.90	5.83	992.90	2.90
989.00	5.75	993.00	2.83
989.10	5.68	993.10	2.76
989.20	5.60	993.20	2.69
989.30	5.53	993.30	2.61
989.40	5.45	993.40	2.54
989.50	5.38	993.50	2.47
989.60	5.30	993.60	2.40
989.70	5.23	993.70	2.33
989.80	5.15	993.80	2.27
989.90	5.08	993.90	2.20
990.00	5.00	994.00	2.13
990.10	4.93	994.10	2.06
990.20	4.85	994.20	1.99
990.30	4.78	994.30	1.92
990.40	4.71	994.40	1.85
990.50	4.63	994.50	1.78
990.60	4.56	994.60	1.71
990.70	4.48	994.70	1.64
990.80	4.41	994.80	1.57
990.90	4.34	994.90	1.51
991.00	4.26	995.00	1.44
991.10	4.19	995.10	1.37
991.20	4.12	995.20	1.30
991.30	4.05	995.30	1.23
991.40	3.97	995.40	1.17
991.50	3.90	995.50	1.10
991.60	3.83	995.60	1.03
991.70	3.76	995.70	0.96
991.80	3.68	995.80	0.90
991.90	3.61	995.90	0.83
992.00	3.54	996.00	0.76

DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C	DENSITY IN AIR kg/m <sup>3</sup> at 20°C	PERCENTAGE OF ETHANOL BY VOLUME at 20°C
996.00	0.76		
996.10	0.70		
996.20	0.63		
996.30	0.56		
996.40	0.50		
996.50	0.43		
996.60	0.36		
996.70	0.30		
996.80	0.23		
996.90	0.16		
997.00	0.10		
997.10	0.03		
997.15	0.00		



### **SCHEDULE 3**

*(Regulation 21)*

#### **Specified records**

1. Invoices, credit notes, debit notes, receipts and other records of payment.
2. Records relating to all alcohol products received and delivered, including those in relation to imports and exports.
3. Statements of account, profit and loss, trading and management accounts and reports, balance sheets and trading forecasts.
4. Production schedules and reports, and other records relating to such schedules and reports.
5. Product specifications and records of any analysis of alcohol products, worts or materials.
6. Stock accounts and other stocktaking records, including those relating to measurement of quantity and strength.
7. Records relating to any relief from, or repayment of, tax and to any claim for such relief or repayment.
8. Internal and external auditors reports.
9. Any other record relating to alcohol products, which is kept for a business purpose.

GIVEN on 14 June 2004.

Josephine Feehily  
Revenue Commissioner.

## **EXPLANATORY NOTE**

(This note is not a part of the instrument and does not purport to be a legal interpretation)

These Regulations consolidate and modernise the various alcohols excise regulations and implement the provisions of Chapter 1 of Part 2 of the Finance Act, 2003, which consolidated and modernised the corresponding primary legislation.

Pn. No. 2954

Price: €8.89