Regulations 2(1) and 16(2)

Conditions for treatment of natural mineral waters and spring waters with ozone-enriched air

- 1. Treatment of natural mineral waters and spring waters with ozone-enriched air may only be carried out if—
 - (a) it is for the purpose of separating compounds of iron, manganese, sulphur and arsenic from water in which they occur naturally at source;
 - (b) prior to treatment the requirements of paragraphs 3, 4 and 5 of Schedule 4 are satisfied; and
 - (c) the treatment does not have a disinfectant action.
 - 2. Treatment of natural mineral waters and spring waters with ozone-enriched air must not—
 - (a) modify the physico-chemical composition of the water in terms of its characteristic constituents; or
 - (b) leave residues in the water which could pose a risk to public health, or, in the case of the substances listed below, above the levels specified.

Treatment residue	Maximum limit (μg/l)	
Dissolved ozone	50	
Bromate	3	
Bromoform	1	

- 3. A person seeking to have a treatment with ozone-enriched air authorised must—
 - (a) make application in writing to the relevant authority within whose area the water is extracted;
 - (b) permit representatives of that authority to examine the proposed method of treatment, and place of treatment, and take samples for analysis in accordance with regulation 17; and
 - (c) provide such information in support of the application as is requested by the relevant authority.
- **4.** The relevant authority must assess the application and any information in its possession and must authorise the treatment if it is satisfied that—
 - (a) the treatment is justified by the composition of the water at source;
 - (b) the person carrying out the treatment is taking all necessary measures to ensure that the treatment is effective and safe; and
 - (c) the treatment otherwise complies with paragraphs 1 and 2.
- **5.** Where the relevant authority decides to authorise a treatment pursuant to paragraph 4, it must inform the operator of the treatment in writing and state the date from which the authorisation for commercial use of the treatment has effect.
- **6.** Where the relevant authority refuses to authorise a treatment pursuant to paragraph 4, it must inform the operator of the treatment in writing, stating its reasons.
- 7. Where a treatment has been authorised pursuant to paragraph 4, the person carrying out the treatment must, for the purpose of enabling the relevant authority to assess whether the conditions in paragraph 4(a) and (b) continue to be satisfied—
 - (a) permit representatives of the authority to examine the method of treatment and place of treatment and take samples for analysis in accordance with regulation 17; and
 - (b) provide such information related to the treatment as is requested by the authority.

- **8.** If the relevant authority is satisfied that the conditions specified in paragraph 4 are no longer fulfilled, it may withdraw authorisation of a treatment by giving the person operating that treatment a written notice stating the grounds for withdrawal.
- **9.** Where the relevant authority has informed an operator under paragraph 6 of its refusal to authorise a treatment under paragraph 4 or withdraws authorisation of a treatment under paragraph 8, the person who wishes to carry out the treatment may apply to the Agency for a review of that decision.
- 10. Upon receiving the application for review, the Agency must make such inquiry into the matter as may seem to the Agency to be appropriate and, having considered the results of that enquiry and any relevant facts elicited by it, must either confirm the decision or direct the relevant authority to grant or restore, as appropriate, authorisation of the treatment process in operation. In the case of such a direction the relevant authority must thereupon comply with the said direction.

Regulations 2(1), 10(1)(b), 13, 19 and

21(2)

Requirements for spring water and drinking water including prescribed concentrations or values of parameters

PART 1

Requirements for spring water and drinking water

- 1. Water satisfies the requirements of this Schedule if
 - (a) the water does not contain
 - (i) any micro-organism (other than a parameter) or parasite, or
 - (ii) any property, element or substance (other than a parameter),
 - at a concentration or value which would constitute a potential danger to human health;
 - (b) the water does not contain any substance (whether or not a parameter) at a concentration or value which, in conjunction with any other property, element, substance or organism it contains (whether or not a parameter), would constitute a potential danger to human health;
 - (c) the water does not contain concentrations or values of any of the parameters listed in Tables A to D in Part 2 of this Schedule in excess of the prescribed concentrations or values; and
 - (d) in the case of water prepared from water which has been softened or desalinated, its hardness is not below a minimum concentration of 60 mg Ca/l.
- **2.** The concentrations or values of the parameters listed in Tables A to D in Part 2 of this Schedule must be read in conjunction with the notes thereto.

PART 2 Prescribed concentrations or values

Table A

Column 1	Column 2	Column 3	Column 4
Item	Parameters	Units of Measurement	Concentration or Value (maximum unless otherwise stated)
1.	Colour	mg/1 Pt/Co scale	20
2.	Turbidity	NTU	4
3.	Odour	Dilution number	3 at 25°C
4.	Taste	Dilution number	3 at 25°C
5.	Sulphate	$mg SO_4/1$	250
6.	Sodium	mg Na/l	200
7.	Nitrate	mg NO ₃ /l	50 (note 1)
8.	Nitrite	$mg NO_2/l$	0.5 (note 1)
9.	Aluminium	μgAl/l	200
10.	Copper	mg Cu/l	2
11.	Fluoride	mg F/l	1.5
12.	Hydrogen ion concentration	pH units	4.5 (minimum)
			9.5 (maximum)
13.	Tritium (for radioactivity)	Bq/l	100
14.	Total indicative dose	mSv/year	0.10 (note 2)
15.	Manganese	μg Mn/l	50

Notes: 3. The concentration (mg/l) of nitrate divided by 50 added to the concentration (mg/l) of nitrite divided by 3 must not exceed 1. Excluding tritium, potassium-40, radon and radon decay products.

Table B

Column 1	Column 2	Column 3	Column 4
Item	Parameters	Units of Measurement	Maximum Concentration
1.	Arsenic	μg As/l	10
2.	Cadmium	μg Cd/l	5
3.	Cyanide	μg CN/l	50
4.	Chromium	μg Cr/l	50
5.	Mercury	μg Hg/l	1
6.	Nickel	μg Ni/l	20
7.	Selenium	μg Se/l	10
8.	Antimony	μg Sb/l	5
9.	Lead	μg Pb/l	10
10.	Pesticides and related products:		
	— individual substances	μg/l	0.10 (notes 1 and 2)
	— total substances	μg/l	0.50 (notes 1 and 3)
11.	Polycyclic aromatic Hydrocarbons	μg/l	0.1 sum of concentrations of specified compounds (note 4)
12.	Bromate	μg BrO3/l	10

- "Pesticides" means:

 organic insecticides,

 organic herbicides,

 organic fungicides,

 organic nematocides,

 - organic nematocides,
 organic acaricides,
 organic algicides,
 organic rodenticides,
 organic slimicides, and
 related products (inter alia, growth regulators) and their relevant metabolites, degradation and reaction products.
- 2.
- Only those pesticides which are likely to be present in a given water need to be monitored. The maximum concentration applies to each individual pesticide. In the case of aldrin, dieldrin, heptaclor and heptachlor epoxide the maximum concentration is $0.030~\mu g/l.$ The maximum concentration for "total substances" refers to the sum of the concentrations of all individual pesticides detected and quantified in the monitoring procedure. The specified compounds are benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(1.2,3-cd) pyrene. 3.
- 4.

Table C

Column 1	Column 2	Column 3	Column 4
Item	Parameters	Units of	Maximum
		Measurement	Concentration
1.	Escherichia coli(E.coli)	number/250 ml	0/250 ml
2.	Enterococci	number/250 ml	0/250 ml
3.	Colony count 22°C	number/ml	100/ml (notes 1 and 2)
4.	Colony count 37°C	number/ml	20/ml (notes 1 and 3)
5.	Pseudomonas aeruginosa	number/250ml	0/250 ml

Notes:

2. 3.

Table D

Column 1 Item	Column 2 Parameters	Column 3 Units of Measurement	Column 4 Maximum Concentration
1.	Boron	mg/l	1.0
2.	Benzo (a) pyrene	μg/l	0.010
3.	Tetrachloroethene and Trichloroethene	μg/l	10 (note 1)
4.	Tetrachloromethane	μg/l	3
5.	Benzene	μg/l	1.0
6.	1,2-dichloroethane	μg/l	3.0
7.	Trichloromethane, Dichlororbromomethan Dibromochloromethane and Tribromomethane		100 (note 1)
8.	Epichlorohydrin	μg/l	0.10 (note 2)
9.	Vinyl chloride	μg/l	0.50 (note 2)
10.	Acrylamide	μg/l	0.10 (note 2)

Notes:

The maximum concentration specified applies to the sum of the concentrations of the

specified parameters.

The parametric value refers to the residual monomer concentration in the water as calculated according to specifications of the maximum release from the corresponding polymer in contact with the water. 2.

The total viable colony count should be measured within 12 hours of bottling, with the sample water being kept at a constant temperature during that 12 hour period. Any increase in the total viable colony count of the water between 12 hours after bottling and the time of sale should not be greater than that normally expected. In 72 hours on agar-agar or an agar-gelatine mixture. In 24 hours on agar-agar.

Regulations 4(1)(a) and (d)(i), (2)(a) and (c), (8) and (9) and 16(1)(a)(iii)

Recognition of natural mineral waters

PART 1

Natural mineral waters extracted from the ground in Wales

- 1. A person seeking to have water which is extracted from the ground in Wales recognised as a natural mineral water for the purposes of Article 1 must make an application in writing to the relevant authority within whose area the water is extracted, giving the particulars set out in paragraph 2.
 - 2. The particulars are—
 - (a) those specified in paragraph 1 of Part 3;
 - (b) any other information showing that the matters specified in paragraphs 2 and 3 of Part 3 are established; and
 - (c) such evidence as is satisfactory to show that the water contains no substance listed in Schedule 6 at a level which exceeds the maximum limit specified in relation to that substance in that Schedule.
- **3.** In so far as particulars of any of the anions, cations, non-ionised compounds or trace elements specified in column 1 of Schedule 5 are required to be given pursuant to sub-paragraph (b) of paragraph 2, the concentration of each such anion, cation, non-ionised compound or trace element must be expressed in those particulars in the unit of measurement specified opposite to it in column 2 of that Schedule.
- **4.** Where such particulars have been so given, the relevant authority must assess them and recognise the water to which those particulars relate as natural mineral water if it is satisfied that—
 - (a) the water is natural mineral water which complies with paragraph 3 of Section I of Annex I: and
 - (b) the characteristics of the water have been assessed in accordance with
 - (i) the points numbered 1 to 4 set out in paragraph 2(a) of Section I of Annex I,
 - (ii) the requirements and criteria listed in Part 3 of this Schedule, and
 - (iii) recognised scientific methods.
- **5.** The relevant authority must, on recognising a natural mineral water in accordance with paragraph 4, publish an announcement of such recognition and the grounds on which it has been granted in the London Gazette.

PART 2

Natural mineral waters extracted from the ground in a country other than an EEA State

- 1. A person seeking to have a water which is extracted from the ground in a country other than an EEA State recognised as a natural mineral water for the purposes of Article 1 must make application in writing to the Agency, giving the particulars set out in paragraph 2.
 - 2. The particulars are—
 - (a) those specified in paragraph 1 of Part 3;

- (b) any other information showing that the matters specified in paragraphs 2 and 3 of Part 3 are established; and
- (c) such evidence as is satisfactory to show that the water contains no substance listed in Schedule 6 at a level which exceeds the maximum limit specified in relation to that substance in that Schedule.
- **3.** In so far as particulars of any of the anions, cations, non-ionised compounds or trace elements specified in column 1 of Schedule 5 are required to be given pursuant to sub-paragraph (b) of paragraph 2, the concentration of each such anion, cation, non-ionised compound or trace element must be expressed in those particulars in the unit of measurement specified opposite to it in column 2 of that Schedule.
- **4.** The Agency must recognise such a water if the responsible authority of the country in which the water is extracted has certified that—
 - (a) it is satisfied
 - (i) that the requirements in paragraphs 2 and 3 of Part 3 are established, and
 - (ii) with the evidence given pursuant to sub-paragraph (c) of paragraph 2; and
 - (b) periodic checks are made to ascertain that—
 - (i) the water is natural mineral water which complies with paragraph 3 of Section I of Annex I,
 - (ii) the characteristics of the water are assessed in accordance with—
 - (aa) points numbered 1 to 4 set out in paragraph 2(a) of Section I of Annex I;
 - (bb) the requirements and criteria listed in Part 3; and
 - (cc) recognised scientific methods, and
 - (iii) the provisions of Schedule 4 are being applied by the person exploiting the spring.
- **5.** Recognition of such water will lapse after a period of five years unless the responsible authority of the country in which the water is extracted has renewed the certification required by paragraph 4.
- **6.** The Agency must, on recognising water in accordance with this Part of this Schedule, publish an announcement of such recognition in the London Gazette, the Edinburgh Gazette and the Belfast Gazette.

PART 3

Requirements and criteria for recognition as a natural mineral water

- 1. Geological and hydrological surveys must include the following particulars—
 - (a) the exact site of the catchment with an indication of its altitude, on a map with a scale of not more than 1:1,000;
 - (b) a detailed geological report on the origin and nature of the terrain;
 - (c) the stratigraphy of the hydrogeological layer;
 - (d) a description of the catchment operations; and
 - (e) the demarcation of the area or details of other measures protecting the spring against pollution.
- 2. Physical, chemical and physico-chemical surveys must establish—
 - (a) the rate of flow of the spring;
 - (b) the temperature of the water at source and the ambient temperature;

- (c) the relationship between the nature of the terrain and the nature and type of minerals in the water;
- (d) the dry residues at 180°C and 260°C;
- (e) the electrical conductivity or resistivity, with the measurement temperature being specified;
- (f) the hydrogen ion concentration (pH);
- (g) the anions and cations;
- (h) the non-ionised elements;
- (i) the trace elements;
- (j) the radio-actinological properties at source;
- (k) where appropriate, the relative isotope levels of the constituent elements of water, oxygen (160—180) and hydrogen (protium, deuterium, tritium); and
- (l) the toxicity of certain constituent elements of the water, taking account of the limits laid down for each of them.
- 3. Microbiological analysis at source must show—
 - (a) the absence of parasites and pathogenic micro-organisms;
 - (b) quantitative determination of the revivable colony count indicative of faecal contamination, demonstrating—
 - (i) absence of Escherichia coli and other coliforms in 250 ml at 37°C and 44.5°C,
 - (ii) absence of faecal streptococci in 250 ml,
 - (iii) absence of sporulated sulphite-reducing anaerobes in 50ml, and
 - (iv) absence of Pseudomonas aeruginosa in 250 ml; and
 - (c) the revivable total colony count per ml of water—
 - (i) at 20 to 22°C in 72 hours on agar-agar or an agar-gelatine mixture, and
 - (ii) at 37°C in 24 hours on agar-agar.
- **4.**—(1) Subject to sub-paragraph (2), clinical and pharmacological analyses must be carried out in accordance with scientifically recognised methods and should be suited to the particular characteristics of the natural mineral water and its effects on the human organism, such as diuresis, gastric and intestinal functions, compensation for mineral deficiencies.
- (2) Clinical analyses may, in appropriate cases, take the place of analyses referred to in sub-paragraph (1), provided that the consistency and concordance of a substantial number of observations enable the same results to be obtained.

Regulations 4(2)(b), 5(1)(c) and (2), 7(3), 9(2)(b), 10(1)(b) and (3) and 16(1)(a)(iv) and paragraph 1(b) of Schedule 1 and paragraph 4(b)(iii) of Part 2 of Schedule 3

Exploitation and bottling requirements for natural mineral water and spring water

1. Equipment for exploiting the water must be so installed as to avoid any possibility of contamination and to preserve the properties corresponding to those ascribed to it which the water possesses at source.

- **2.** The spring or outlet must be protected against the risks of pollution.
- **3.** The catchment, pipes and reservoirs must be of materials suitable for water and so built as to prevent any chemical, physico-chemical or microbiological alteration of the water.
- **4.** The conditions of exploitation, particularly at the washing and bottling plant, must meet hygiene requirements. In particular, the containers must be so treated or manufactured as to avoid adverse effects on the microbiological and chemical characteristics of the natural water.
- **5.**—(1) Subject to sub-paragraphs (2) and (3), water must not be transported in containers other than those authorised for distribution to the ultimate consumer.
- (2) Natural mineral water may be transported from the spring to the bottling plant in a container which is not for distribution to the ultimate consumer if on or before 17 July 1980 water from that spring was so transported.
- (3) Water distributed to the ultimate consumer in a bottle marked or labelled with the description "spring water" may be transported from the spring to the bottling plant in a container which is not for distribution to the ultimate consumer if on or before 23 November 1996 water from that spring was so transported.
- **6.**—(1) The revivable total colony count of the water at source, determined according to subparagraph (2), must conform to the normal viable colony count of that water and not show that the source of that water is contaminated.
 - (2) The colony count is that determined per ml of water—
 - (a) at 20 to 22 °C in 72 hours on agar-agar or an agar-gelatine mixture; and
 - (b) at 37 °C in 24 hours on agar-agar.
 - 7.—(1) After bottling, the total colony count of the water at source may not exceed—
 - (a) 100 per ml at 20 to 22 °C in 72 hours on agar-agar or an agar-gelatine mixture; and
 - (b) 20 per ml at 37 °C in 24 hours on agar-agar.
- (2) The total colony count must be measured within the period of 12 hours following bottling, the water being maintained at $4 \, ^{\circ}\text{C} + / -1 \, ^{\circ}\text{C}$ during the period before which it is measured.
 - **8.** Water must be free from—
 - (a) Parasites and pathogenic micro-organisms;
 - (b) Escherichia coli and other coliforms and faecal streptococci in any 250 ml sample examined;
 - (c) Sporulated sulphite-reducing anaerobes in any 50 ml sample examined; and
 - (d) Pseudomonas aeruginosa in any 250 ml sample examined.

Regulation 4(9) and paragraph 3 of Part 1 of Schedule 3

Particulars of anions, cations, non-ionised compounds and trace elements

Anions	Unit of measurement
Borate BO ₃	mg/1
Carbonate CO ₃ ²⁻	mg/1

Anions	Unit of measurement
Chloride Cl	mg/1
Fluoride F	mg/l
Hydrogen Carbonate HCO ₃	mg/1
Nitrate NO ₃	mg/1
Nitrite NO ₂	mg/1
Phosphate PO ₄ ³⁻	mg/1
Silicate SiO ₂	mg/1
Sulphate SO_4^{2-}	mg/1
Sulphide S ²⁻	mg/1
Cations	Unit of measurement
Aluminium A1	mg/1
Ammonium NH ₄ ⁺	mg/l
Calcium Ca	mg/1
Magnesium Mg	mg/1
Potassium K	mg/l
Sodium Na	mg/1
Non-ionised compounds	Unit of measurement
Total organic carbon C	mg/1
Free carbon dioxide CO ₂	mg/1
Silica SiO ₂	mg/1
Trace elements	Unit of measurement
Barium Ba	μg/l
Bromine (total) Br	μg/l
Cobalt Co	μg/l
Copper Cu	μg/l
Iodine (total) I	μg/l
Iron Fe	μg/l
Lithium Li	μg/l
Manganese Mn	μg/l
Molybdenum Mo	μg/l
Strontium Sr	μg/l
Zinc Zn	μg/1

Regulation 7(1) and (2) and paragraph 2(c)of Part 1 of Schedule 3, paragraph 2(c) of Part 2 of Schedule 3 and Notes 1 and 2 of Schedule 7

Maximum limits for constituents of natural mineral waters

Constituents	Maximum limits (mg/l)
Antimony	0.0050
Arsenic	0.010 (as total)
Barium	1.0
Cadmium	0.003
Chromium	0.050
Copper	1.0
Cyanide	0.070
Fluoride	5.0
Lead	0.010
Manganese	0.50
Mercury	0.0010
Nickel	0.020
Nitrate	50
Nitrite	0.1
Selenium	0.010

Note:

The constituents described above refer to constituents naturally present in the water at source and not to substances present as the result of contamination.

SCHEDULE 7 Regulation 7(2)

Performance characteristics for analysing the constituents in Schedule 6

Constituent	Accuracy of parametric value in %	Precision of parametric value	Detection limit of parametric value in %
Antimony	25	25	25
Arsenic	10	10	10
Barium	25	25	25
Cadmium	10	10	10
Chromium	10	10	10
Copper	10	10	10

Status: This is the original version (as it was originally made). This item of legislation is currently only available in its original format.

Constituent	Accuracy of parametric value in %	Precision of parametric value	Detection limit of parametric value in %
Cyanides	10	10	10
Fluoride	10	10	10
Lead	10	10	10
Manganese	10	10	10
Mercury	20	10	20
Nickel	10	10	10
Nitrate	10	10	10
Nitrite	10	10	10
Selenium	10	10	10

Notes:

- 1.
- The method of analysis used to measure the concentration of the constituents in Schedule 6 must be capable of measuring concentrations equal to the parametric value with the specified accuracy, precision and detection limits.

 Regardless of the sensitivity of the method of analysis, the result must be expressed to at least the same number of decimal places as the maximum limit set out in Schedule 6 for the particular constituent being analysed.

 Accuracy is the systematic error and represents the difference between the average value of a large number of repeated measurements and the exact value.

 Precision represents the random error and is expressed in general as the standard deviation (within a batch and between batches) of a sample of results from the average. 2.

3.

4. (within a batch and between batches) of a sample of results from the average. Acceptable precision is equal to twice the relative standard deviation. The detection limit is—

- - three times the relative standard deviation within a batch of a natural sample containing a low concentration of the constituent; or
- (b) five times the relative standard deviation within a batch of a virgin sample. The method should make it possible to determine cyanide in all its forms. 7.

SCHEDULE 8 Regulation 8(1)(e) Labelling indications for natural mineral water and criteria for use

Indication	Criteria
Low mineral content	Mineral salt content, calculated as a fixed residue, not greater than 500 mg/l
Very low mineral content	Mineral salt content, calculated as a fixed residue, not greater than 50 mg/l
Rich in mineral salts	Mineral salt content. Calculated as a fixed residue, greater than 1500 mg/l
Contains bicarbonate	Bicarbonate content greater than 600 mg/l
Contains sulphate	Sulphate content greater than 200 mg/l
Contains chloride	Chloride content greater than 200 mg/l
Contains calcium	Calcium content greater than 150 mg/l
Contains magnesium	Magnesium content greater than 50 mg/l

Status: This is the original version (as it was originally made). This item of legislation is currently only available in its original format.

Indication	Criteria
Contains fluoride	Fluoride content greater than 1 mg/l
Contains iron	Bivalent iron content greater than 1 mg/l
Acidic	Free carbon dioxide content greater than 250 mg/l
Contains sodium	Sodium content greater than 200 mg/l
Suitable for a low-sodium diet	Sodium content less than 20 mg/l