



S.I. No. 225/2007 — European Communities (Natural Mineral Waters, Spring Waters and Other Waters in Bottles or Containers) Regulations 2007

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SCHEDULE 1

PART 1 DEFINITION

1. Natural mineral water means microbiologically wholesome water, within the meaning of Article 5 of Council Directive 80/777/EEC, originating in an underground water table or deposit and emerging from a spring tapped at one or more natural or bore exits.

Natural mineral water can be clearly distinguished from ordinary drinking water—

- (a) by its nature, which is characterised by its mineral content, trace elements or other constituents and, where appropriate, by certain effects;
- (b) by its original state,

both characteristics having been preserved intact because of the underground origin of such water, which has been protected from all risk of pollution.

2. These characteristics, which may give natural mineral water properties favourable to health, must have been assessed—

(a) from the following points of view—

1. geological and hydrological,
2. physical, chemical and physico-chemical,
3. microbiological,
4. if necessary, pharmacological, physiological and clinical;

(b) according to the criteria listed in Part 2 of this Schedule;

(c) according to scientific methods approved by the responsible authority.

The analyses referred to in (a) (4) may be optional where the water presents the compositional characteristics on the strength of which it was considered a natural mineral water in the Member State of origin prior to the entry into force of Directive 80/777/EEC. This is the case in particular when the water in question contains, per kg, both at source and after bottling, a minimum of 1,000 milligrams of total solids in solution or a minimum of 250 milligrams of free carbon dioxide

3. The composition, temperature and other essential characteristics of natural mineral water must remain stable within the limits of natural fluctuation; in particular, they must not be affected by possible variations in the rate of flow.

Within the meaning of Article 5(1) of Directive 80/777/EEC, the normal viable colony count of natural mineral water means the reasonably constant total colony count at source before any treatment, whose qualitative and quantitative composition taken into account in the recognition of that water is checked by periodic analysis.

PART 2 Requirements and Criteria for Applying the Definition

1.1. Requirements for geological and hydrological surveys

There must be a requirement to supply the following particulars—

- the exact site of the catchment with indication of its altitude, on a map with a scale of not more than 1:1,000;
- a detailed geological report on the origin and nature of the terrain;
- the stratigraphy of the hydrogeological layer;
- a description of the catchment operations;

the demarcation of the area or details of other measures protecting the spring against pollution.

1.2. Requirements for physical, chemical and physico-chemical surveys

These surveys shall establish—

- 1.2.1. The rate of flow of the spring;
- 1.2.2. The temperature of the water at source and the ambient temperature;
- 1.2.3. The relationship between the nature of the terrain and the nature and type of minerals in the water;
- 1.2.4. The dry residues at 180°C and 260°C;
- 1.2.5. The electrical conductivity or resistivity, with the measurement temperature having to be specified;
- 1.2.6. The hydrogen ion concentration (pH);
- 1.2.7. The anions and cations;
- 1.2.8. the non-ionized elements;
- 1.2.9. The trace elements;
- 1.2.10. The radio-actinological properties at source;
- 1.2.11. Where appropriate, the relative isotope levels of the constituent elements of water, oxygen (^{16}O — ^{18}O) and hydrogen (protium, deuterium, tritium);
- 1.2.12. The toxicity of certain constituent elements of the water, taking account of the limits laid down for each of them.

1.3. Criteria for microbiological analyses at source

These analyses must include—

1.3.1. Demonstration of the absence of parasites and pathogenic micro-organisms;

1.3.2. Quantitative determination of the revivable colony count indicative of faecal contamination—

(a) the absence of *Escherichia coli* and other coliforms in 250 millilitres at 37°C and 44.5°C;

(b) the absence of faecal streptococci in 250 millilitre;

(c) the absence of sporulated sulphite-reducing anaerobes in 50 millilitre;

(d) the absence of *Pseudomonas aeruginosa* in 250 millilitre.

1.3.3. Determination of the revivable total colony count per millilitre of water—

(a) at 20 to 22°C in 72 hours on agar-agar or an agar-gelatine mixture,

(b) at 37°C in 24 hours on agar-agar.

1.4. Requirements for clinical and pharmacological analyses

1.4.1. The analyses, which must be carried out in accordance with scientifically recognised methods, 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.

1.4.2. The establishment of the consistency and concordance of a substantial number of clinical observations may, if appropriate, take the place of the analyses referred to in 1.4.1. Clinical analyses may, in appropriate cases, take the place of the analyses referred to in 1.4.1 provided that the consistency and concordance of a substantial number of observations enable the same results to be obtained.

PART 3 Supplementary Qualifications Relating to Effervescent Natural Mineral Waters

At source or after bottling, effervescent natural mineral waters give off carbon dioxide spontaneously and in a clearly visible manner under normal conditions of temperature and pressure. They fall into three categories to which the following descriptions respectively shall apply—

- (a) naturally carbonated natural mineral water means water whose content of carbon dioxide from the spring after decanting, if any, and bottling is the same as at source, taking into account where appropriate the reintroduction of a quantity of carbon dioxide from the same water table or deposit equivalent to that released in the course of those operations and subject to the usual technical tolerances;
- (b) natural mineral water fortified with gas from the spring means water whose content of carbon dioxide from the water table or deposit after decanting, if any, and bottling is greater than that established at source;
- (c) carbonated natural mineral water means water to which has been added carbon dioxide of an origin other than the water table or deposit from which the water comes.

SCHEDULE 2 Conditions for the Exploitation and Marketing of Natural Mineral Water

1. Exploitation of a natural mineral water spring shall be subject to permission from the responsible authority of the country where the water has been extracted, after it has been established that the water in question complies with the provisions laid down in point 1 of Schedule 1.
2. 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.

To this end, in particular—

- (a) the spring or outlet must be protected against the risks of pollution;
- (b) 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;
- (c) the conditions of exploitation, particularly 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 mineral water;
- (d) the transport of natural mineral water in containers other than those authorised for distribution to the ultimate consumer is prohibited.

However, point (d) need not be applied to mineral waters exploited and marketed in the territory of a Member State if, in that Member State at the time of notification of Council Directive 80/777/EEC, transport of the natural mineral water in tanks from the spring to the bottling plant was authorised

3. Where it is found during exploitation that the natural mineral water is polluted and no longer presents the microbiological characteristics laid down in Article 5 of Council Directive 80/777/EEC, the person exploiting the spring must forthwith suspend all operations, particularly the bottling process, until the cause of pollution is eradicated and the water complies with the provisions of Article 5 of Council Directive 80/777/EEC.
4. The responsible authority in the country of origin shall carry out periodic checks to see whether—
 - (a) the natural mineral water in respect of which exploitation of the spring has been authorised complies with Part 1 of Schedule 1;
 - (b) the provisions of paragraphs 2 and 3 are being applied by the person exploiting the spring.

SCHEDULE 3 Indications and Criteria laid down in Article 9 of Council Directive 80/777/EEC

Indications	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 1,500 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
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 the preparation of infant food	_____
Suitable for a low-sodium diet	Sodium content less than 20 mg/l
May be laxative	_____
May be diuretic	_____

SCHEDULE 5 Parameters and Parametric Values

PART 1 Microbiological parameters

The following applies to water offered for sale in bottles or containers—

Parameter	Parametric value
<i>Escherichia coli</i> (<i>E. coli</i>)	0/250 ml
Enterococci	0/250 ml
<i>Pseudomonas aeruginosa</i>	0/250 ml
Colony count 22°C	100/ml
Colony count 37°C	20/ml

PART 2 Chemical parameters

Parameter	Parametric value	Unit	Notes
Acrylamide	0.10	µg/l	Note 1
Antimony	5.0	µg/l	
Arsenic	10	µg/l	
Benzene	1.0	µg/l	
Benzo(a)pyrene	0.010	µg/l	
Boron	1.0	mg/l	
Bromate	10	µg/l	Note 2
Cadmium	5.0	µg/l	
Chromium	50	µg/l	
Copper	2.0	mg/l	Note 3
Cyanide	50	µg/l	
1,2-dichloroethane	3.0	µg/l	
Epichlorohydrin	0.10	µg/l	Note 1
Fluoride	1.5	mg/l	
Lead	10	µg/l	Notes 3 and 4
Mercury	1.0	µg/l	
Nickel	20	µg/l	Note 3
Nitrate	50	mg/l	Note 5
Nitrite	0.50	mg/l	Note 5
Pesticides	0.10	µg/l	Notes 6 and 7
Pesticides — Total	0.50	µg/l	Notes 6 and 8
Polycyclic aromatic hydrocarbons	0.10	µg/l	Sum of concentrations of specified compounds; Note 9
Selenium	10	µg/l	
Tetrachloroethene and Trichloroethene	10	µg/l	Sum of concentrations of specified parameters
Trihalomethanes — Total	100	µg/l	Sum of concentrations of specified compounds; Note 10
Vinyl chloride	0.50	µg/l	Note 1

Notes

Note 1

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.

Note 2

Where possible, without compromising disinfection, Member States should strive for a lower value.

For the water referred to in Article 6(1)(a), (b) and (d) of Council Directive 98/83/EC, the value must be met, at the latest, 10 calendar years after the entry into force of Council Directive 98/83/EC. The parametric value for bromate from five years after the entry into force of Council Directive 98/83/EC until 10 years after its entry into force is 25 µg/l.

Note 3

The value applies to a sample of water intended for human consumption obtained by an adequate sampling method (1) at the tap and taken so as to be representative of a weekly average value ingested by consumers. Where appropriate the sampling and monitoring methods must be applied in a harmonised fashion to be drawn up in accordance with Article 7(4) of Council Directive 98/83/EC. Member States must take account of the occurrence of peak levels that may cause adverse effects on human health.

Note 4

For water referred to in Article 6(1)(a), (b) and (d) of Council Directive 98/83/EC, the value must be met, at the latest, 15 calendar years after the entry into force of Council Directive 98/83/EC. The parametric value for lead from five years after the entry into force of Council Directive 98/83/EC until 15 years after its entry into force is 25 µg/l. Member States must ensure that all appropriate measures are taken to reduce the concentration of lead in water intended for human consumption as much as possible during the period needed to achieve compliance with the parametric value. When implementing the measures to achieve compliance with that value Member States must progressively give priority where lead concentrations in water intended for human consumption are highest.

Note 5

Member States must ensure that the condition that $[\text{nitrate}]/50 + [\text{nitrite}]/3 \leq 1$, the square brackets signifying the concentrations in mg/l for nitrate (NO₃) and nitrite (NO₂), is complied with and that the value of 0.10 mg/l for nitrites is complied with ex water treatment works.

Note 6

“Pesticides” means:

- organic insecticides,
- organic herbicides,
- organic fungicides,
- organic nematocides,
- organic acaricides,
- organic algicides,
- organic rodenticides,
- organic slimicides,
- related products (including, inter alia, growth regulators)

and their relevant metabolites, degradation and reaction products.

Only those pesticides which are likely to be present in a given supply need be monitored.

Note 7	The parametric value applies to each individual pesticide. In the case of aldrin, dieldrin, heptachlor and heptachlor epoxide the parametric value is 0.030 µg/l.
Note 8	“Pesticides — Total” means the sum of all individual pesticides detected and quantified in the monitoring procedure.
Note 9	<p>The specified compounds are—</p> <ul style="list-style-type: none"> — benzo(b)fluoranthene, — benzo(k)fluoranthene — benzo(ghi)perylene, — indeno(1,2,3-cd)pyrene.
Note 10	<p>The specified compounds are: chloroform, bromoform, dibromochloromethane and bromodichloromethane. For the water referred to in Article 6(1)(a), (b) and (d) of Council Directive 98/83/EC, the value must be met, at the latest, 10 calendar years after the entry into force of Council Directive 98/83/EC. The parametric value for total THMs from five years after the entry into force of Council Directive 98/83/EC until 10 years after its entry into force is 150 µg/l.</p> <p>Member States must ensure that all appropriate measures are taken to reduce the concentration of Trihalomethanes (THMs) in water intended for human consumption as much as possible during the period needed to achieve compliance with the parametric value. When implementing the measures to achieve this value, Member States must progressively give priority to those areas where THM concentrations in water intended for human consumption are highest.</p> <p>Where possible, without compromising disinfection, Member States should strive for a lower value.</p>

PART 3 Indicator parameters

Parameter	Parametric value	Unit	Notes
Aluminium	200	µg/l	
Ammonium	0.50	mg/l	
Chloride	250	mg/l	Note 1
Clostridium perfringens(including spores)	0	number/100 ml	Note 2
Colour	Acceptable to consumers and no abnormal change		
Conductivity	2 500	S cm ⁻¹ at 20°C	Note 1
Hydrogen ion concentration	6.5 and 9.5	pH units	Notes 1 and 3
Iron	200	µg/l	
Manganese	50	µg/l	
Odour	Acceptable to consumers and no abnormal change		
Oxidisability	5.0	mg/l O ₂	Note 4
Sulphate	250	mg/l	Note 1
Sodium	200	mg/l	
Taste	Acceptable to consumers and no abnormal change		
Colony count 22°	No abnormal change		
Coliform bacteria	0	number/100 ml	Note 5
Total organic carbon (TOC)	No abnormal change		Note 6
Turbidity	Acceptable to consumers and no abnormal change		

RADIOACTIVITY

Parameter	Parametric value	Unit	Notes
Tritium	100	Bq/l	Notes 8 & 10
Total indicative dose	0.10	mSv/year	Notes 9 & 10

NOTES

Note 1

The water should not be aggressive.

Note 2

This parameter need not be measured unless the water originates from or is influenced by surface water. In the event of non-compliance with this parametric value, the Member State concerned must investigate the supply to ensure that there is no potential danger to human health arising from the presence of pathogenic micro-organisms, e.g. cryptosporidium. Member States must include the results of all such investigations in the reports they must submit under Article 13(2) of Council Directive 98/83/EC.

Note 3

For still water put into bottles or containers, the minimum value may be reduced to 4.5 pH units. For water put into bottles or containers which is naturally rich in or artificially enriched with carbon dioxide, the minimum value may be lower.

Note 4

This parameter need not be measured if the parameter TOC is analysed.

Note 5

For water put into bottles or containers the unit is number/250 ml.

Note 6

This parameter need not be measured for supplies of less than 10,000 m³ per day.

Note 7

In the case of surface water treatment, Member States should strive for a parametric value not exceeding 1.0 NTU (nephelometric turbidity units) in the water ex treatment works.

Note 8

Monitoring frequencies to be set later in Schedule 6.

Note 9

Excluding tritium, potassium -40, radon and radon decay products; monitoring frequencies, monitoring methods and the most relevant locations for monitoring points to be set later in Schedule 6.

Note 10

- (1) The proposals required by Note 8 on monitoring frequencies, and Note 9 on monitoring frequencies, monitoring methods and the most relevant locations for monitoring points in Schedule 6 shall be adopted in accordance with the procedure laid down in Article 12 of Council Directive 98/83/EC. When elaborating these proposals the Commission shall take into account, inter alia, the relevant provisions under existing legislation or appropriate monitoring programmes including monitoring results as derived from them. The Commission shall submit these proposals at the latest within 18 months following the date referred to in Article 18 of Council Directive 98/83/EC.
- (2) A Member State is not required to monitor drinking water for tritium or radioactivity to establish total indicative dose where it is satisfied that, on the basis of other monitoring carried out, the levels of tritium of the calculated total indicative dose are well below the parametric value. In that case, it shall communicate the grounds for its decision to the Commission, including the results of this other monitoring carried out.

SCHEDULE 6 MONITORING

PART 1 Parameters to be analysed

1. Check monitoring

The purpose of check monitoring is regularly to provide information on the organoleptic and microbiological quality of the water supplied for human consumption as well as information on the effectiveness of drinking-water treatment (particularly of disinfection) where it is used, in order to determine whether or not water intended for human consumption complies with the relevant parametric values laid down in Council Directive 98/83/EC.

The following parameters must be subject to check monitoring. Member States may add other parameters to this list if they deem it appropriate.

Aluminium (Note 1)	
Ammonium	
Colour	
Conductivity	
Clostridium perfringens (including spores) (Note 2)	
Escherichia coli (E. coli)	
Hydrogen ion concentration	
Iron (Note 1)	
Nitrite (Note 3)	
Odour	
Pseudomonas aeruginosa Taste	
Colony count 22°C and 37°C	
Coliform bacteria	
Turbidity	
Note 1	Necessary only when used as flocculant*.
Note 2	Necessary only if the water originates from or is influenced by surface water*.
Note 3	Necessary only when chloramination is used as a disinfectant*.
* In all other cases, the parameters are in the list for audit monitoring.	

2. Audit monitoring

The purpose of audit monitoring is to provide the information necessary to determine whether or not all of Council Directive's 98/83/EC parametric values are being complied with. All parameters set in accordance with Article 5(2) and (3) of Council Directive 98/83/EC must be subject to audit monitoring unless it can be established by the competent authorities, for a period of time to be determined by them, that a parameter is not likely to be present in a given supply in concentrations which could lead to the risk of a breach of the relevant parametric value. This paragraph does not apply to the parameters for radioactivity, which, subject to Notes 8, 9 and 10 in Schedule 5, Part 3, will be monitored in accordance with monitoring requirements adopted under Article 12 of Council Directive 98/83/EC.

PART 2 Minimum frequency of sampling and analysis for water put into bottles or containers intended for sale

Volume of water produced for offering for sale in bottles or containers each day (*) m³	Check monitoring number of samples per year	Audit monitoring number of samples per year
≤10	1	1
>10 ≤ 60	12	1
>60	1 for each 5 m ³ and part thereof of the total volume	1 for each 100 m ³ and part thereof of the total volume
(*) The volumes are calculated as averages taken over a calendar year.		

SCHEDULE 7 Specifications for the Analysis of Parameters

Each Member State must ensure that any laboratory at which samples are analysed has a system of analytical quality control that is subject from time to time to checking by a person who is not under the control of the laboratory and who is approved by the competent authority for that purpose.

PART 1 Parameters for which Methods of Analysis are Specified

The following principles for methods of microbiological parameters are given either for reference whenever a CEN/ISO method is given or for guidance, pending the possible future adoption, in accordance with the procedure laid down in Article 12 of Council Directive 98/83/EC, of further CEN/ISO international methods for these parameters. Member States may use alternative methods, providing the provisions of Article 7(5) of Council Directive 98/83/EC are met.

Coliform bacteria and *Escherichia coli* (*E. coli*) (ISO 9308-1)

Enterococci (ISO 7899-2)

Pseudomonas aeruginosa (prEN ISO 12780)

Enumeration of culturable microorganisms — Colony count 22°C (prEN ISO 6222)

Enumeration of culturable microorganisms — Colony count 37°C (prEN ISO 6222)

Clostridium perfringens (including spores)

Membrane filtration followed by anaerobic incubation of the membrane on m-CP agar (Note 1) at 44 °C for 21 3 hours. Count opaque yellow colonies that turn pink or red after exposure to ammonium hydroxide vapours for 20 to 30 seconds.

Note 1: The composition of m-CP agar is

Basal medium

Tryptose	30g
Yeast extract	20g
Sucrose	5g
L-cysteine hydrochloride	1g
MgSO 4 7H 2 O	0.1g
Bromocresol purple	40mg
Agar	15g
Water	1,000ml

Dissolve the ingredients of the basal medium, adjust pH to 7.6 and autoclave at 121°C for 15 minutes. Allow the medium to cool and add—

D-cycloserine	400 mg
Polymyxine-B sulphate	25 mg
Indoxyl--D-glucoside to be dissolved in 8 ml sterile water before addition	60 mg

Filter — sterilised 4.5% FeCl₃ 6H₂O

2 ml

PART 2 Parameters for which Performance Characteristics are Specified

2.1. For the following parameters, the specified performance characteristics are that the method of analysis used must, as a minimum, be capable of measuring concentrations equal to the parametric value with a trueness, precision and limit of detection specified. Whatever the sensitivity of the method of analysis used, the result must be expressed using at least the same number of decimals as for the parametric value considered in Schedule 5, Parts B and C.

Parameters	Trueness % of parametric value (Note 1)	Precision % of parametric value (Note 2)	Limit of detection % of parametric value (Note 3)	Conditions	Notes
Acrylamide				To be controlled by product specification	
Aluminium	10	10	10		
Ammonium	10	10	10		
Antimony	25	25	25		
Arsenic	10	10	10		
Benzo(a)pyrene	25	25	25		
Benzene	25	25	25		
Boron	10	10	10		
Bromate	25	25	25		
Cadmium	10	10	10		
Chloride	10	10	10		
Chromium	10	10	10		
Conductivity	10	10	10		
Copper	10	10	10		
Cyanide	10	10	10		Note 4
1,2-dichloroethane	25	25	10		
Epichlorohydrin				To be controlled by product specification	
Fluoride	10	10	10		
Iron	10	10	10		
Lead	10	10	10		
Manganese	10	10	10		

Parameters	Trueness % of parametric value (Note 1)	Precision % of parametric value (Note 2)	Limit of detection % of parametric value (Note 3)	Conditions	Notes
Mercury	20	10	20		
Nickel	10	10	10		
Nitrate	10	10	10		
Nitrite	10	10	10		
Oxidisability	25	25	10		Note 5
Pesticide	25	25	25		Note 6
Polycyclic aromatic hydrocarbons	25	25	25		Note 7
Selenium	10	10	10		
Sodium	10	10	10		
Sulphate	10	10	10		
Tetrachloroethene	25	25	10		Note 8
Trichloroethene	25	25	10		Note 8
Trihalomethanes – Total	25	25	10		Note 7
Vinyl chloride				To be controlled by product specification	

2.2 For hydrogen ion concentration the specified performance characteristics are that the method of analysis used must be capable of measuring concentrations equal to the parametric value with a trueness of 0.2 pH unit and a precision of 0.2 pH unit.

Note 1

Trueness is the systematic error and is the difference between the mean value of the large number of repeated measurements and the true value. This term is further defined in ISO 5725.

Note 2

Precision is the random error and is usually expressed as the standard deviation (within and between batch) of the spread of results about the mean. Acceptable precision is twice the relative standard deviation. This term is further defined in ISO 5725.

Note 3

Limit of detection is either—

- three times the relative within batch standard deviation of a natural sample containing a low concentration of the parameter, or
- five times the relative within batch standard deviation of a blank sample.

Note 4	The method should determine total cyanide in all forms.
Note 5	Oxidation should be carried out for 10 minutes at 100°C under acid conditions using permanganate.
Note 6	The performance characteristics apply to each individual pesticide and will depend on the pesticide concerned. The limit of detection may not be achievable for all pesticides at present, but Member States should strive to achieve this standard.
Note 7	The performance characteristics apply to the individual substances specified at 25% of the parametric value in Schedule 5.
Note 8	The performance characteristics apply to the individual substances specified at 50% of the parametric value in Schedule 5.

PART 3 Parameters for which no Method of Analysis is Specified

Colour
Odour
Taste
Total organic carbon
Turbidity (Note 1)
Note 1: For turbidity monitoring in treated surface water the specified performance characteristics are that the method of analysis used must, as a minimum, be capable of measuring concentrations equal to the parametric value with a trueness of 25%, precision of 25% and a 25% limit of detection.

SCHEDULE 8 Constituents Naturally Present in Natural Mineral Waters and Maximum Limits which, if Exceeded, may pose a Risk to Public Health

Constituents	Maximum limits (mg/l)
Antimony	0.0050
Arsenic	0.010 (as total)
Barium	1.0
Boron	For the record*
Cadmium	0.003
Chromium	0.050
Copper	1.0
Cyanide	0.070
Fluorides	5.0
Lead	0.010
Manganese	0.50
Mercury	0.0010
Nickel	0.020
Nitrates	50
Nitrites	0.1
Selenium	0.010

* The maximum limit for boron will be fixed, where necessary, following an opinion of the European Food Safety Authority and on a proposal from the Commission.

SCHEDULE 9 Performance Characteristics* for Analysing the Constituents in Schedule 8

Constituents	Accuracy of parametric value in % (Note 1)	Precision of parametric value (Note 2)	Detection limit in % of parametric value (Note 3)	Notes
Antimony	25	25	25	
Arsenic	10	10	10	
Barium	25	25	25	
Boron				See Schedule 8
Cadmium	10	10	10	
Chromium	10	10	10	
Copper	10	10	10	
Cyanides	10	10	10	Note 4
Fluorides	10	10	10	
Lead	10	10	10	
Manganese	10	10	10	
Mercury	20	10	20	
Nickel	10	10	10	
Nitrates	10	10	10	
Nitrites	10	10	10	
Selenium	10	10	10	

* Analytical methods for measuring concentrations of the constituents listed in Schedule 8 must be able to measure, as a minimum, concentrations equal to the parametric value with a specified accuracy, precision and detection limit. Whatever the sensitivity of the method of analysis used, the result will be expressed using at least the same number of decimal places as for the maximum limit laid down in Schedule 8.

Note 1

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

Note 2

precision is 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. Acceptable precision is equal to twice the relative standard deviation.

Note 3

the detection limit is:

- either three times the relative standard deviation within a batch of a natural sample containing a low concentration of the parameter,
- or five times the relative standard deviation within a batch of a virgin sample.

Note 4

the method should make it possible to determine total cyanide in all its forms.

SCHEDULE 10 Maximum Limits for Residues from Treatment of Natural Mineral Waters and Spring Waters by Ozone-Enriched Air

Treatment Residue	Maximum limit* (µg/l)
Dissolved Ozone	50
Bromates	3
Bromoforms	1

* compliance with the maximum limits is monitored by the competent authorities in the Member States at the time of bottling or other form of packaging intended for the final consumer.

More Information

The [National Standards Authority of Ireland](#) has produced a standard titled **Irish Standard IS 432:2005, Packaged Water** which covers water that is placed in a sealed container or package and is offered for sale, or supply for human consumption. Compliance with this standard is voluntary on the part of producers. This standard is being revised in 2010



[Codex Alimentarius Commission](#) has published a number of Codes of Practice which are relevant to bottled water :-

- Recommended International Code of Hygienic Practice for the Collecting, Processing and Marketing of Natural Mineral Waters (CAC/RCP 33-1985)
- Codex Standard for Natural Mineral Waters (108 - 1981 Rev 1 1997)
- General Standard for Bottled/Packaged Drinking Waters (other than Natural Mineral Waters) (227-2001)
- Code of Hygienic Practice for Bottled/Packaged Drinking Waters(other than Natural Mineral Waters) (CAC/RCP 48-2001)