

LIST OF RELEVANT EUROPEAN STANDARDS

2.1 British Standards BS EN for Chemicals used for Treatment of Water

IMPORTANT NOTES

1. *The existence of a relevant EN standard does not necessarily mean that all supplies of a specific treatment chemical or product will have been tested to and shown to meet the appropriate requirements of the EN. These standards contain requirements for impurities and may additionally have a National Condition of Use assigned to them.*
2. *Since EN standards for drinking water treatment chemicals and products do not contain mandatory requirements for attestation of conformity, it is the responsibility of the user of these products to ensure that the treatment chemicals or products provided by a specific supplier fully meet the test requirements of the relevant EN standard by provision of a certificate of attestation for the batch of chemical supplied or by internally checking through their own laboratories.*
3. *The standards have been written for a specific function in water treatment. Full details where a treatment chemical or product is used outside of normal use, advice should be sought from the DWI and approval may be required.*
4. *It is recommended that end users of treatment chemicals or materials that have an BSEN associated to them have access to the current version to ensure that the product supplied conforms.*

Note - we are unable to recommend laboratories to undertake testing of individual treatment chemicals for conformity with these standards; responsibility of such testing is with the manufacturer and/or end user.

For all of the chemicals listed the following general national condition of use applies:

The method of use and the purity of these products shall be such that, in the case of water for public supply, the water so treated meets the requirements of the relevant regulations .

BS EN	Chemical	Additional National Conditions of Use	Use
13194: 2015	Acetic acid	None	Source of carbon for biological denitrification
17034:2018	Aluminium chloride anhydrous, aluminium chloride basic, dialuminium chloride pentahydroxide and aluminium chloride hydroxide sulfate	None	Coagulant and precipitant
935: 2004	Aluminium iron (III) chloride (monomer) and aluminium iron (III) chloride hydroxide (monomeric)	None	Coagulant and precipitant
887: 2016	Aluminium iron (III) sulfate	None	Coagulant and precipitant
878: 2016	Aluminium sulfate	None	Coagulant
12122: 2005	Ammonia solution	None	For in-situ bacteriostatic treatment by formation of chloramines
12123: 2012	Ammonium sulfate	None	For in-situ bacteriostatic treatment by formation of chloramines
1421: 2012	Ammonium chloride	None	For in-situ bacteriostatic treatment by formation of chloramines
1407: 2008	Anionic and nonionic polyacrylamides	<p>(i) no batch must contain more than 0.020% of free acrylamide monomer based on the active ingredient content;</p> <p>(ii) the dose must average no more than 0.25 mg l⁻¹ and never exceed 0.50 mg l⁻¹ of the active ingredient;</p> <p>(iii) an upper limit for the content of free acrylamide monomer must be stated by the supplier for every batch;</p> <p>(iv) the method used for the analysis for free acrylamide monomer is entitled 'Determination of Acrylamide' published in the series 'Methods for the Examination of Waters and Associated Materials' by the Environment Agency.</p>	Removal of colloidal and fine suspended particles and as a flocculant
1018:	Calcium carbonate	None	pH and hardness adjustment

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BS EN	Chemical	Additional National Conditions of Use	Use
2013+A1:2015			
900: 2014	Calcium hypochlorite	None	Removal of ammonium compounds, oxidising sulphides, oxidation of iron and manganese and disinfectant
16003:2011	Calcium Magnesium Carbonate	None	pH and hardness adjustment
1204: 2005	Calcium tetrahydrogen bis(orthophosphate)	None	Corrosion inhibition in water pipes consisting of cast iron, mild or galvanized steel or copper. To achieve an improved corrosion inhibition, also combination products with polyphosphates are used depending on the water quality.
936: 2013	Carbon dioxide	None	Increase water hardness, pH adjustment and regeneration of ion exchange resins
1410: 2008	Cationic polyacrylamides	<i>(i) no batch must contain more than 0.020% of free acrylamide monomer based on the active ingredient content; (ii) the dose must average no more than 0.25 mg l⁻¹ and never exceed 0.50 mg l⁻¹ of the active ingredient; (iii) an upper limit for the content of free acrylamide monomer must be stated by the supplier for every batch; and (iv) the method used for the analysis for free acrylamide monomer is entitled 'Determination of Acrylamide' published in the series 'Methods for the Examination of Waters and Associated Materials' by the Environment Agency.</i>	Coagulant and flocculant for colloidal or fine suspended particles
937: 2016	Chlorine	None	Disinfectant, removal of ammonia compounds, oxidising sulphides and regeneration of ion exchange resins
12671: 2016	Chlorine dioxide	<i>The combined concentration of chlorine dioxide, chlorite and chlorate should not exceed 0.5mg l⁻¹ as chlorine dioxide in the water entering supply.</i>	Disinfection and oxidation
12386: 2012	Copper sulfate	None	Cleaning of containers used for drinking water treatment and destruction of algae in

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BS EN	Chemical	Additional National Conditions of Use	Use
			water works installations
1202: 2005	Dipotassium hydrogen orthophosphate	None	Corrosion inhibition in water pipes consisting of cast iron, mild or galvanized steel or copper. To achieve an improved corrosion inhibition, also combination products with polyphosphates are used depending on the water quality.
1199: 2005	Disodium hydrogen orthophosphate	None	Corrosion inhibition in water pipes consisting of cast iron, mild or galvanized steel or copper. To achieve an improved corrosion inhibition, also combination products with polyphosphates are used depending on the water quality.
1205: 2005	Disodium dihydrogen pyrophosphate	None	Scale inhibitor
16409:2013 +Corr 2014	Dolomitic lime	None	Mineralise water after desalination. Adjust pH and hardness
13176: 2015	Ethanol	None	Source of carbon for biological denitrification
12175: 2013	Hexafluorosilicic acid	None	Increase resistance of consumers to dental decay
12518: 2014	High-calcium lime	None	pH and hardness adjustment
939: 2016	Hydrochloric acid	<i>Disposal of waste water must be done in accordance with relevant environmental regulations, which may require obtaining consents from local regulatory bodies.</i>	Lower pH, ingredient for the generation of chlorine dioxide and regeneration of ion exchange resins
902: 2016	Hydrogen peroxide	<i>(i) Disposal of waste water must be done in accordance with relevant environmental regulations, which may require obtaining consents from local regulatory bodies. (ii) Products conforming to EN902 shall not contain stabilising or activation agents. If a product contains such agents it requires approval under the relevant regulations. (iii) Prior to introduction into supply all residual hydrogen peroxide must be</i>	An oxidant to remove oxidisable impurities and as a disinfectant (NB National Conditions of use apply)

BS EN	Chemical	Additional National Conditions of Use	Use
		<i>demonstrably removed/destroyed</i>	
888: 2004	Iron(III) chloride	<i>None</i>	Primary coagulant
891: 2004	Iron(III) chloride sulfate	<i>None</i>	Primary coagulant
889: 2004	Iron(II) sulfate	<i>None</i>	Primary coagulant
890: 2012	Iron(III) sulphate liquid	<i>None</i>	Primary coagulant
14664: 2004	Iron(III) sulphate, solid	<i>None</i>	Primary coagulant
12126: 2012	Liquefied ammonia	<i>None</i>	For in-situ bacteriostatic treatment by formation of chloramines
16004:2011	Magnesium Oxide	<i>None</i>	pH adjustment and hardness
13177: 2010	Methanol	<i>None</i>	Source of carbon for biological denitrification
1406: 2009	Modified starches	<i>The dose must not exceed 5 mg l⁻¹ of active ingredient.</i>	Removal of colloidal and fine suspended particles
1197: 2014	Mono zinc phosphate solution	<i>None</i>	Corrosion inhibition in water pipes consisting of cast iron, mild or galvanized steel or copper. To achieve an improved corrosion inhibition, also combination products with polyphosphates are used depending on the water quality.
12876: 2015	Oxygen	<i>None</i>	Oxidant, maintaining aerobic conditions, gas for ozone generation
1278: 2010	Ozone	<i>None</i>	Disinfectant, improvement of organoleptic quality, removal of iron, manganese and colour, oxidation of persistent pollutants and a coagulant

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BS EN	Chemical	Additional National Conditions of Use	Use
974: 2003	Phosphoric acid	<i>Disposal of waste water must be done in accordance with relevant environmental regulations, which may require obtaining consents from local regulatory bodies.</i>	Biological nitrification/denitrification and corrosion control eg plumbosolvency
15040: 2014	Phosphonic acids and salts – antiscalants for membranes	<i>None</i>	Antiscalant for reverse osmosis and nanofiltration membranes to prevent CaCO ₃ , CaSO ₄ , BaSO ₄ , SrSO ₄ , CaF ₂ scale deposition and fouling by iron, aluminium, manganese and silicates.
1408: 2008	Poly(diallyldimethylammonium chloride)	<i>The dose used must not exceed 10 mg l⁻¹ of active ingredient.</i>	Coagulant and flocculant for colloidal and fine suspended particles
885: 2004	Polyaluminium chloride hydroxide silicate	<i>None</i>	Coagulant and precipitant
886: 2004	Polyaluminium hydroxide silicate sulfate	<i>None</i>	Coagulant and precipitant
1409: 2008	Polyamines	<i>(i) The average dose should be 2.5 mg l⁻¹ and never exceed 5 mg l⁻¹ of active ingredient; (ii) no batch must contain more than 40 mg of 3-monochloropropane 1,2-diol per kg of active ingredient; (iii) the analytical system used for determining the batch content must have a limit of detection no greater than 4 mg kg⁻¹ and a maximum total standard deviation no greater than 4 mg kg⁻¹ at 40 mg kg⁻¹. Both estimates must have at least 10 degrees of freedom and have been determined from batches of analyses carried out on not less than five separate days; and (iv) the supplier must state for every batch an upper limit for the content of</i>	Coagulant and flocculant for colloidal and fine suspended particles

BS EN	Chemical	Additional National Conditions of Use	Use
		<i>3-monochloropropane 1,2-diol.</i>	
15039: 2014	Polycarboxylic acids and salts – antiscalants for membranes	<i>None</i>	Antiscalant for reverse osmosis and nanofiltration membranes to prevent CaCO ₃ , CaSO ₄ , BaSO ₄ , SrSO ₄ , CaF ₂ scale deposition and fouling by iron, aluminium, manganese and silicates.
15041: 2014	Polyphosphates – antiscalants for membranes	<i>None</i>	Antiscalant for reverse osmosis and nanofiltration membranes
1201: 2005	Potassium dihydrogen orthophosphate	<i>None</i>	Corrosion inhibition in water pipes consisting of cast iron, mild or galvanized steel or copper. To achieve an improved corrosion inhibition, also combination products with polyphosphates are used depending on the water quality.
12672: 2008	Potassium permanganate	(i) Treatment chemical may only be used upstream of Filtration/clarification, and (ii) Dosing is such that permanganate is not present when the treated water enters supply	Taste and odour control, elimination of algae and microorganisms, removal of iron and manganese and regeneration of filter media
12678: 2008	Potassium peroxomonosulfate	<i>None</i>	Oxidation of organic and inorganic matter
1211: 2005	Potassium tripolyphosphate	<i>None</i>	Scale inhibitor
15030: 2012 + A1:2015	Silver salts for conservation of drinking water for intermittent use	On advice from HSE – these compounds may not be used in contact with water intended for human consumption.	
1205: 2005	Sodium acid pyrophosphate	<i>None</i>	Scale inhibition
1405: 2009	Sodium alginate	<i>the dose used must not exceed 0.5 mg l⁻¹ of active ingredient</i>	Removal of colloidal and fine suspended particles
882: 2016	Sodium aluminate	<i>None</i>	Coagulant and flocculant
1208: 2005	Sodium calcium polyphosphate	<i>None</i>	Corrosion and scale inhibition in water pipes consisting of cast iron, mild or galvanized

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BS EN	Chemical	Additional National Conditions of Use	Use
			steel or copper.
897: 2012	Sodium carbonate	<i>None</i>	Increase pH and alkalinity
15028: 2012	Sodium chlorate	<i>The requirements and national conditions of use of the final chlorine dioxide generated shall meet the requirements of BS EN 12671</i>	Ingredient for the generation of chlorine dioxide
16370:2013	Sodium chloride for on-site electrochlorination using membrane cells	Under review – contact DWI for further information	Used to produce active chlorine (Cl ₂ or NaClO) by electrolysis of brine for disinfection of water
14805: 2008	Sodium chloride for on-site electrochlorination using non-membrane technology	<i>The requirements and national conditions of use of the final hypochlorite generated shall meet the requirements of BS EN 901.</i>	Ingredient used to produce active chlorine (Cl ₂ or NaClO) for disinfection of water by electrolysis of brine
973: 2009	Sodium chloride for regeneration of ion exchangers	<i>None</i>	Regeneration of ion exchange resins
938: 2016	Sodium chlorite	<i>The requirements and national conditions of use of the final chlorine dioxide generated shall meet the requirements of BS EN 12671</i>	Ingredient for the generation of chlorine dioxide
12931: 2015 12932: 2015 12933: 2015	Sodium dichloroisocyanurate, anhydrous Sodium dichloroisocyanurate, dihydrate Trichloroisocyanuric acid	<p>Conditions if product is used as a cleaning agent: <i>(i) the dose must be such that the final concentration in the water used to wash installations does not exceed 1000 mg l⁻¹ of free available chlorine; (ii) that following cleaning and disinfection, the installation is flushed to ensure that the residual chlorine concentration is acceptable to consumers; and (iii) Disposal of waste water must be done in accordance with relevant environmental regulations, which may require obtaining consents from local regulatory bodies.</i></p> <p><i>Water companies should check with their suppliers to ensure that products to be cleaned and disinfected will not be adversely affected by the concentration of chlorine to be employed.</i></p> <p>Conditions if product is used as an emergency disinfectant: <i>(i) where circumstances are such that the water being treated is not grossly contaminated and a controlled contact time of not less than 15 minutes between dosing and taking it into use can be maintained, not more</i></p>	Disinfectant by generation of hypochlorous acid

BS EN	Chemical	Additional National Conditions of Use	Use
		<p><i>than 10 mg l⁻¹ of sodium dichloro-isocyanurate compound should be applied and not more than 1mg l⁻¹ of free residual chlorine should be present at the end of the relevant contact time. It is recommended that consumers should be exposed to such waters containing chloro-isocyanurates for only as long as is required to restore conventional treatment, or for no more than 90 days in any period of a year, whichever is applicable;</i></p> <p><i>(ii) under circumstances where water sources may be grossly contaminated, to ensure inactivation of most likely harmful organisms, up to 20 mg l⁻¹ sodium dichloro-isocyanurate may be added, with a recommended contact time of 15 minutes before use. It is recommended that consumption of water dosed at this rate of treatment should be for only as long as is necessary before it is possible to effect control of the residual chlorine after contact to 1 mg l⁻¹, and then to follow the requirements set out in condition (i); and</i></p> <p><i>(iii) should it be necessary for specific groups of consumers to be exposed to water containing chloro-isocyanurates for periods greater than 90 days either continuously or in a year, it is recommended that independent medical advice be obtained from a person who is not under the control of the water undertaker.</i></p>	
1198: 2005	Sodium dihydrogen orthophosphate	None	Corrosion inhibition in water pipes consisting of cast iron, mild or galvanized steel or copper. To achieve an improved corrosion inhibition, also combination products with polyphosphates are used depending on the water quality.
12121: 2012	Sodium disulfite	None	Reducing agent to remove excess chlorine, chlorine dioxide or ozone
12173: 2012	Sodium fluoride	None	Increase resistance of consumers to dental decay

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BS EN	Chemical	Additional National Conditions of Use	Use
12174: 2013	Sodium hexafluorosilicate	None	Increase resistance of consumers to dental decay
898: 2012	Sodium hydrogen carbonate	None	pH stabilisation and alkalinity adjustment
16037:2012	Sodium Hydrogen Sulfate	Under review – contact DWI for further information	Adjustment of pH, generation of chlorine dioxide, regeneration of adsorbents & ion exchange resins.
12120: 2012	Sodium hydrogen sulfite	None	Reducing agent to remove excess chlorine, chlorine dioxide or ozone
896: 2012	Sodium hydroxide	None	neutralising agent, adjustment of pH value, softening agent, alkalinity adjustment, regenerator for ion exchange resins
901: 2013	Sodium hypochlorite	<i>The method of use and the purity of these products shall be such that, in the case of water for public supply, the water so treated meets the requirements of the relevant regulations .</i>	Removal of ammonium compounds, oxidising sulphides, oxidation of iron and manganese and disinfectant While this standard is not applicable to sodium hypochlorite generated in-situ, the limits for impurities and chemical parameters apply
15482: 2012	Sodium Permanganate	(i) <i>Treatment chemical may only be used upstream of Filtration/clarification, and</i> (ii) <i>Dosing is such that permanganate is not present when the treated water enters supply</i>	Taste and odour control, elimination of algae and microorganisms, removal of iron and manganese and regeneration of filtering material.
12926: 2015	Sodium peroxodisulfate	None	Oxidation of organic and inorganic matter and ingredient in the generation of chlorine dioxide
1212: 2005	Sodium polyphosphate	None	Corrosion inhibition in water pipes consisting of cast iron, mild or galvanized steel or copper. To achieve an improved corrosion inhibition, also combination products with polyphosphates are used depending on the water quality.
1209: 2003	Sodium silicate	None	Flocculant, corrosion inhibitor and

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BS EN	Chemical	Additional National Conditions of Use	Use
			sequestering agent for iron and manganese
12124: 2012	Sodium Sulfit	<i>None</i>	Reducing agent to remove excess chlorine, chlorine dioxide or ozone
12125: 2012	Sodium thiosulfate	<i>None</i>	Reducing agent to remove excess chlorine, chlorine dioxide or ozone
1210: 2005	Sodium tripolyphosphate	<i>None</i>	Scale inhibitor
1019: 2005	Sulfur dioxide	<i>None</i>	Removal of excess oxidising agents eg chlorine and ozone
899: 2009	Sulfuric acid	<i>None</i>	pH adjustment and regeneration of ion exchange resins
1207: 2005	Tetrapotassium pyrophosphate	<i>None</i>	Scale inhibitor
1206: 2005	Tetrasodium pyrophosphate	<i>None</i>	Scale inhibitor
1203: 2005	Tripotassium orthophosphate	<i>None</i>	Corrosion inhibition in water pipes consisting of cast iron, mild or galvanized steel or copper. To achieve an improved corrosion inhibition, also combination products with polyphosphates are used depending on the water quality.
1200: 2005	Trisodium orthophosphate	<i>None</i>	Corrosion inhibition in water pipes consisting of cast iron, mild or galvanized steel or copper. To achieve an improved corrosion inhibition, also combination products with polyphosphates are used depending on the water quality.

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2.2 British Standards BS EN for Products used for Treatment of Water Intended for Human Consumption

IMPORTANT NOTES

- 1. The existence of a relevant EN standard does not necessarily mean that all supplies of a specific treatment chemical or product will have been tested to and shown to meet the appropriate requirements of the EN. These standards contain requirements for impurities and may additionally have a National Condition of Use assigned to them.*
- 2. Since EN standards for drinking water treatment chemicals and products do not contain mandatory requirements for attestation of conformity, it is the responsibility of the user of these products to ensure that the treatment chemicals or products provided by a specific supplier fully meet the test requirements of the relevant EN standard by provision of a certificate of attestation for the batch of chemical supplied or by internally checking through their own laboratories.*
- 3. The standards have been written for a specific function in water treatment. Full details where a treatment chemical or product is used outside of normal use, advice should be sought from the DWI and approval may be required.*
- 4. It is recommended that end users of treatment chemicals or materials that have an BSEN associated to them have access to the current version to ensure that the product supplied conforms.*

Note - we are unable to recommend laboratories to undertake testing of individual treatment chemicals for conformity with these standards; responsibility of such testing is with the manufacturer and/or end user.

For all of the products listed the following general national condition of use applies;
The method of use and the purity of these products shall be such that the quality of treated drinking water meets the requirements of the relevant regulations.

BS EN	Title	Additional National Conditions of Use	Use
1017: 2014	Half –burnt dolomite	None	Granular filter medium
12909: 2012	Anthracite	None	Filter medium
12912: 2012	Barite	None	A filtering or supporting material in multilayer filters
13754: 2009	Bentonite	None	used to weigh down a flock when there is a low amount of suspended solids in the water.
14456: 2004	Bone charcoal	<i>The contact bed containing the product must be adequately back-washed (until backwash water is clear of fines) to remove any readily leachable materials before connection to the supply.</i>	Remove colour, taste odour and wide range of metals, fluoride and certain other organic and inorganic contaminants.
12905: 2005	Expanded aluminosilicate	None	Filtering material and as a support for biofiltration
12910: 2012	Garnet	None	Used as a filtration and support material. It also has an application as a seeding material in pellet reactors.
13753: 2009 12915 - 1: 2009 12915 - 2: 2009 12907: 2009	Granular activated alumina Granular activated carbon. Part 1: Virgin GAC Granular activated carbon. Part 2: Reactivated GAC Pyrolised coal material	<i>(i) the contact bed containing the product must be adequately back-washed (until backwash water is clear of fines) to remove any readily leachable materials before connection to the supply; and (ii) before connection to the supply, the water undertaker or their appointed agent must carry out tests on the filtrate water to establish that use of the contact bed will not cause any adverse effect on the quality of water to be put into supply. These tests must include measurement of chlorine demand and a qualitative odour assessment, as well as tests to confirm that leaching of activating agents or any other substance used in the preparation or regeneration of the product will not cause a contravention of the standards prescribed in the relevant regulations .</i>	the primary function of granular activated alumina is as an adsorbent for the removal of inorganic ions; particularly fluoride, arsenate, chromate and polar organic contaminants. The primary function of granular activated carbon is as an adsorbent for the removal of trace organic contaminants (e.g. Pesticides, chlorinated solvents, oils), taste and odour-producing compounds and trihalomethane precursors. Pyrolised coal is used as a filtering material

BS EN	Title	Additional National Conditions of Use	Use
15029: 2012	Iron (III) hydroxide oxide	<i>None</i>	the primary function of iron (III) hydroxide oxide is as an adsorbent for the removal of inorganic ions; particularly arsenic, arsenate, phosphate, antimony compounds, other trace metals and polar organic contaminants.
14369: 2015	Iron-coated granular activated alumina	<i>None</i>	the primary function of iron-coated granular activate alumina is as an adsorbent for the removal of inorganic ions; particularly fluoride, arsenate and polar organic contaminants.
13752: 2012	Manganese dioxide	<i>None</i>	used as a catalytic filtering material for the removal of iron and manganese from water
14368: 2015	Manganese dioxide coated limestone	<i>None</i>	Catalytic filtering medium for removal of iron and manganese
12911: 2013	Manganese greensand	<i>None</i>	the primary function of manganese greensand is for removal of iron, manganese and hydrogen sulfide from water.
15795: 2010	Natural Unexpanded Aluminosilicates	Under consideration – please seek advice from DWI	used as filtering materials or as supporting material in multilayer filters.
16070:2014	Natural Zeolite	Under consideration – please seek advice from DWI	Used as a cation exchange for removal of dissolved pollutants such as NH ₃ , Radioactive compounds and heavy metals. Filter media for mechanical filtration of water as an absorbant to remove compounds such as NH ₃ , HS and some organohalogens and radioactive compounds.
12903: 2009	Powdered activated carbon	<i>The dose must not exceed 100 mg l⁻¹.</i>	used as an adsorbent for the removal of trace organic contaminants (e.g. Pesticides, chlorinated solvents, oils) taste and odour-producing compounds and trihalomethane precursors.
12913: 2012	Powdered diatomaceous earth	<i>None</i>	used to remove solid contaminants from water by retention

BS EN	Title	Additional National Conditions of Use	Use
12914: 2005	Powdered perlite	<i>None</i>	used to remove solid contaminants from water.
12906: 2005	Pumice	<i>None</i>	used as a filtering material
12904: 2005	Silica sand and silica gravel	<i>None</i>	used as filtering or supporting materials

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2.3 British Standards BS EN & BS on the Influence of Materials on Water Intended for Human Consumption

Number	Title
BS EN 1302: 1999	Aluminium based co-agulants – Analytical methods
BS EN 1420-1: 2016	Influence of organic materials on water intended for human consumption – Determination of odour and flavour assessment of water in piping systems
BS EN 12485: 2010	Calcium carbonate, high-calcium lime and half burnt dolomite - Test methods
BS EN 12873-1: 2014	Influence of materials on water intended for human consumption – Influence due to migration – Part 1: Test method for non-metallic and non-cementitious factory made products
BS EN 12873-2: 2004	Influence of materials on water intended for human consumption – Influence due to migration – Part 2: Test method for non-metallic and non-cementitious site – applied materials
BS EN 12873-3: 2006	Influence of materials on water intended for human consumption – Influence due to migration – Part 3: Test method for ion exchange and adsorbent resins
BS EN 12873-4: 2006	Influence of materials on water intended for human consumption – Influence due to migration – Part 4: Test method for water treatment membranes
BS EN 12901: 1999	Inorganic supporting and filtering materials – Definitions
BS EN 12902: 2004	Inorganic supporting and filtering materials – Methods of test
BS EN 13052-1: 2001	Influence of materials on water intended for human consumption – Organic materials – Determination of colour and turbidity of water in piping systems – Part 1: Test method
BS EN 14395-1: 2004	Influence of materials on water intended for human consumption – Organoleptic assessment of water in storage systems – Part 1: Test method
BS EN 14718: 2014	Influence of organic materials on water intended for human consumption – Determination of the chlorine demand – Test Method
BS EN 14944-1: 2006	Influence of factory made cementitious products on organoleptic parameters – Test methods – Part 1: Influence of factory made cementitious products on organoleptic parameters
BS EN 14944-3: 2007	Influence of factory made cementitious products on organoleptic parameters – Test methods – Part 3: Migration of substances from factory-made cementitious products
BS EN 15664-1: 2008 + A1:2013	Influence of metallic materials on water intended for human consumption – Dynamic rig test for assessment of metal release – Part 1: Design and operation
BS EN 15664-2:2010	Influence of metallic materials on water intended for human consumption – Dynamic rig test for assessment of metal release – Part 2: Test Waters
BS EN 15768:2015	Influence of materials on water for human consumption – GC-MS identification of water leachable organic substances
BS EN 16057:2012 *	Influence of metallic materials on water intended for human consumption – Determination of residual surface lead (Pb)- Extraction method
BS EN 16058:2012 *	Influence of metallic materials on water intended for human consumption – Dynamic rig test for assessment of surface coatings with Nickel layers- Long term test method
BS EN 16056:2012 *	Influence of metallic materials on water intended for human consumption- Method to evaluate the passive behaviour of Stainless Steels
BS EN 16421:2014 *	Influence of materials on water for human consumption – enhancement of microbial growth (EMG)
BS EN 17215:2019	Chemicals used for treatment of water intended for human consumption – Iron-based coagulants – Analytical methods
BS 6920-1:2014 + Corr 1	Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on water quality – Part 1: Specification
BS 6920-2.1:2014	Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on water quality – Part 2: Methods of test – Section 2.1: Samples for testing

Number	Title
BS 6920-2.2.1:2000 + A3:2014	Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on water quality – Part 2: Methods of test – Section 2.2: Odour and flavour of water – Subsection 2.2.1: General method of test
BS 6920-2.2.2:2000 + A1:2014	Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on water quality – Part 2: Methods of test – Section 2.2: Odour and flavour of water – Subsection 2.2.2: Method of testing odours and flavours imparted to water by multi-layered hoses and pipes
BS 6920-2.2.3:2000 + A2:2014	Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on water quality – Part 2: Methods of test – Section 2.2: Odour and flavour of water – Subsection 2.2.3: Method of testing odours and flavours imparted to water by hoses for conveying water for food and drink preparation
BS 6920-2.3:2000 + A1:2014	Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on water quality – Part 2: Methods of test – Section 2.3: Appearance of water
BS 6920-2.4:2000 + A1:2014	Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on water quality – Part 2: Methods of test – Section 2.4: Growth of aquatic microorganisms test
BS 6920-2.5:2000 + A2:2014	Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on water quality – Part 2: Methods of test – Section 2.5: The extraction of substances that may be of concern to public health
BS 6920-2.6:2000 + A2:2014	Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on water quality – Part 2: Methods of test – Section 2.6: The extraction of metals
BS 6920-4:2001	Suitability of non-metallic materials and products for use in contact with water intended for human consumption with regard to their effect on water quality – Part 4: Method for GCMS identification of water leachable organic substances

* These methods have not been assessed for use. Please contact DWI for further Advice

2.4 List of Authorised Cement Admixture Components

The four Member States Group (4MS) comprising of France, Germany, the Netherlands and the United Kingdom work together on the regulatory frameworks that they currently have in place to ensure the hygienic safety of drinking water with respect to contact with products, materials and chemicals. Cementitious products are part of that work and with the assistance of the cementitious admixture industry a transitional list of chemical admixtures has been produced and published. This is based upon those already on lists and used in France, Germany and the UK.

The following link to the 4MS shared website replaces the table previously published for admixtures and gives the chemical identity of admixture ingredients considered acceptable for use in cement admixtures for use in concrete in contact with water, providing the admixture is not added to the concrete at a concentration exceeding the manufacturer's recommended dose. The list also provides details of conditions of use for specific ingredients

http://www.umweltbundesamt.de/sites/default/files/medien/374/dokumente/admixtures_positive_list_4ms_approach_2016_final.pdf

***Note 1:** Biocides/ preservative and agents, antifoam/ air control agents, present in the admixture at less than 1.0% in total and the dilution water used in cement admixture formulations are excluded from the requirement for authorisation.*

***Note 2:** The use of ferrous or stannous sulphate is acceptable as reducing agents to control concentrations of hexavalent chromium (VI) in cement.*

***Note 3:** Fibre additions to concrete - , the use of polymeric or carbon reinforcing fibres should not be a cause for concern, providing that either -*

- a. concrete made with them, at the proposed concentration/level conforms with the requirements of BS 6920 odour and flavour and growth of aquatic microorganisms tests OR*
- b. the reinforcing fibres have already met the requirements of BS 6920*