



Materials and Substances in Contact with Drinking Water

Introduction

Materials and substances used to collect, contain, control or treat may also contaminate drinking water. The 2004 Australian Drinking Water Guidelines encourage the protection of drinking water from catchment to consumer. One of the important factors influencing the quality of drinking water provided to consumers is the effect of various materials and substances that may come into contact with the drinking water as it collected and supplied throughout the distribution system.

Chemicals and substances that may come into contact with drinking water for purposes other than direct improvement of water quality are not covered by this fact sheet. (e.g. fertilisers, herbicides, pesticides, specialised chemicals for non potable uses such as industrial boilers and air-conditioning units). For more information about these products contact the Drinking Water Quality Branch of the Department of Health.

The Department of Health does not support the use of any material or substance for use with drinking water unless it has been approved for its intended purpose.

Several processes exist to establish the safety, suitability and approval of materials and substances designed to come into contact with or treat drinking water. These are explained in more detail below.

The Schedules that are attached to this document have been extracted from (and may be found in) Memorandum of Understanding for Drinking Water (MoU) that have been endorsed between each licensed water provider and the Department of Health. The Schedules are numbered in accordance with their relative positions within the MoU.

Six Schedules have been created for the following specific purposes:

Schedule 4 – Chemicals and Materials Assessed – Not Approved.

The table in this schedule contains any product (Schedule 5 to 9) that has been presented to the Department of Health for assessment that has not been approved for use in association with any drinking water application.

Schedule 5 – Approved Materials.

The table in this Schedule lists materials that have been approved by the Department of Health for use in contact with drinking water. The table contains substances that come into direct and prolonged contact with drinking water such as lining materials, paints/coatings, resins and sealants. The table also includes products that have been endorsed as compliant with Australian Standard AS 4020 Testing of Products for Use in Contact with Drinking Water. Products that are compliant to AS 4020 may be used in contact with drinking water without application to the Department of Health. However, care should be taken to ensure compliance



with all appendices of the Standard. (Department of Health notification of use is recommended.)

Schedule 6 – Materials Assessed – Not Requiring Approval (Subject to Condition)

From time to time it may be necessary to use specialised materials and substances during the development or remediation of drinking water production, containment and transportation systems. The Department of Health may give approval for such processes or procedures to take place where it can be adequately demonstrated that the material or substance is completely removed before drinking water is produced, contained or transported. Schedule 6 lists these assessments.

Schedule 7 – Chemicals Approved for Addition to Drinking Water

Schedule 7 compiles all chemicals that have either been accepted or approved by the Department of Health to treat drinking water. This Schedule makes direct reference to Chapter 8, Drinking Water Treatment Chemicals of the 2004 Australian Drinking Water Guidelines which describe processes, procedures and chemicals that have been approved for drinking water treatment. Water treatment chemicals not listed in this Schedule must be approved by the Department of Health before use.

Schedule 8 – Chemicals and Procedures use to Maintain Water Treatment and Distribution Systems

This Schedule lists specific chemicals and procedures used to maintain water treatment and distribution systems. Water treatment systems may include membrane, reverse osmosis filtration and ultraviolet treatment plants. Water distribution systems may include bores, mains and tanks.

Schedule 9 – Chemicals and Materials used in Catchment areas

Schedule 9 lists chemical and materials that have been approved by the Department of Health for use in drinking water catchment areas. Substances that may impact upon drinking water quality include, dust suppressants, fire retardants and soil stabilizers.

Making Application for Approval to Use a Substance or Material in Contact with Drinking Water

Materials, substances and chemical that are compliant with Australian Standard AS 4020 or Chapter 8 2004 Australian Drinking Water Guidelines may be used in contact with or to treat drinking water without application to the Department of Health. (Department of Health notification of use is recommended.) Applicants are strongly encouraged seek to Australian Standard endorsement of their product before making application to the Department of Health. Contact should be made to the Australian Water Quality Centre, Hodgson Road, Bolivar South Australia, ph 1300 65 33 66. The Department of Health will assess products only where it is not appropriate for the national accreditation processes to be applied.



More Information:

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SCHEDULE 4 – Chemicals and Materials Assessed - Not Approved

The following table includes products that have been presented to the Department of Health and have not been approved for use in association with any drinking water application.

DoH REF	Year Assessed	PRODUCT	COMPANY	REASON
88/80 90/24	1990	Calcure Type D	Cementaid Pty Ltd	Failed to complete assessment
88/80 90/24	1990	Calform NX	Cementaid Pty Ltd	Failed to complete assessment
88/80 90/24	1990	Calstrip	Cementaid Pty Ltd	Failed to complete assessment
88/80 90/24	1990	Caltite	Cementaid Pty Ltd	Failed to complete assessment
90/81 63	1991	Dow Corning Silicone 780	Dow Corning Australia	Failed to complete assessment
90/81 63	1991	Durapond	Duram Coating Products	Failed testing
90/81 63	1991	Elastoseal	Crommelin Chemicals	Failed to complete assessment
88/80 90/13	1989	Elasto-thane 227R	ICI Building Products	Failed to complete assessment
88/80 90/39	1991	Halar Fluoropolymer Resin	ACPS Lined Systems	Failed to complete assessment
88/80 90/01	1990	HIP2835 Stabiliser	Hardie Iplex	Failed to complete assessment
88/80 90/18	1991	Interpon HD 3005 epoxy powder coating	Taubmans Pty Ltd	Failed to complete assessment
88/80 90/43	1991	Isophthalic Resin (KEM 142)	ICI Dulux Resins	Failed to complete assessment
88/80 90/16	1989	Metallic Zinc Spray	John McCoy & Assoc	Failed to complete assessment
88/80 90/28	1990	Nutra Rust 661	Burwood Agencies	Failed to complete assessment
88/80 90/43	1991	Orhtopthalic Resin (73-2020)	ICI Dulux Resins	Failed to complete assessment
88/80 90/22	1990	Polyethylene Resin Hostalen GM 5010	David Moss Trading Pty Ltd	Failed to complete assessment
90/81 63	1991	Procure (Sprayable rubber)	Dunlop Industrial products	Failed to complete assessment
88/80 90/51	1992	Rafpoxy A52 High Build	Raffles Paints	Failed to complete assessment
88/80 90/23	1989	RCL Polyester Resin	RCL resinous Chemicals	Failed chemical leachate testing
88/80 90/42	1991	Red Mud Plastic	J P Distributors	Failed to complete assessment
88/80 90/21	1990	Secoseal 200	Expandite (Australia) Pty Ltd	Failed to complete assessment
88/80 90/35	1990	Shamir Epoxy Polyester	Amiad Australia Pty Ltd	Failed to complete assessment

DoH REF	Year Assessed	PRODUCT	COMPANY	REASON
88/80 90/29	1990	Steel it coatings	Specialty Metals	Failed to complete assessment
88/80 90/24	1990	Superplastet SR	Cementaid Pty Ltd	Failed to complete assessment
88/80 90/06	1994	Tank lining High Build Epoxy	Courtaulds (Australia) Pty	Failed to complete assessment



SCHEDULE 5 – Approved Materials

The Department of Health has examined and approved the following products (linings, paints, resins etc) for potable water applications.

The following table includes products compliant to 'AS 4020 Testing of products for use in contact with drinking water', that have been presented to and noted by the Department of Health.

Any product compliant to AS4020 may be used in contact with drinking water without application to the Department of Health. However, care should be taken to ensure compliance with all appendices of the Standard. (Department of Health notification is recommended).

This list does not include water treatment chemicals (See Schedule 7) or chemicals and procedures used to maintain water treatment and distribution systems (see Schedule 8).

DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
88/80 90/14	1989	A Catt Suppressor Valve	J A Industries	Water Hammer Suppressor Valve
EHB- 2152	2009	Aquatain	Aquatain Products Pty Ltd	Refer to DoH approval conditions.
92/80 36	1992	Acothane Solvent Free Coating (brush grade)	Great Western Chemicals	Coating
88/80 90/04	1989	Acryl 60	ICI Building Products	Coating
99/ 6176	1999	Akzo Nobel Interline 876	Tubemakers Australia	Sealant to cement mortar lined water supply mains.
92/80 36/05	1994	Ameron RP-34C adhesive	Wenco Pty Ltd, O'Connor, WA	Epoxy adhesive
88/80 90/36	1990	Anzopol 3329003	Anzol Pty Ltd	Resin for manufacture of pipes, fittings etc.
00/ 6044	2000	AV 600M	Grace Construction Products	Acrylic modifier as an adhesion medium.
92/80 36/05	1994	Bondstrand Series 2000 pipe	Wenco Pty Ltd, O'Connor, WA	Glass-reinforced epoxy water pipe
92/80 36/04	1993	Bostik 2638 Gun-grade Polyurethane sealant	Bostik (Australia) Pty Ltd	Joint & gap sealer
92/4	1993	Bostik N49 primer (used with Bostik 2638)	Bostik (Australia) Pty Ltd	Primer for joint & gap sealer
88/80 90	1984	Butynol	Shelter Engineering Pty Ltd	Rubber Lining
88/80 90	1986	Carboline 191 4B Topcoat	Vessey Chemicals (WA) Pty Ltd	Coating. After complete curing, coating must be thoroughly rinsed with potable water prior to being placed into service.



DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
88/80 90	1986	Carboline 191 Primer	Vessey Chemicals (WA) Pty Ltd	Coating. After complete curing, coating must be thoroughly rinsed with potable water prior to being placed into service.
92/80 36/14	1990	Chesterton 855 Abrasion Control Liquid	John Venables	Application to small surface areas
92/80 36/14	1994	Chesterton ARC SC2 Abrasion Control Fluid	John Venables	Application to small surface areas
86/09 40	1985	Chevron Industrial Membrane	CIM Distributors	Mt Yokine Reservoir only. Product must comply with US EPA specifications
86/09 40	1986	Colturiet EHB	Wattyl-Sigma Coatings Wattyl-Sigma Coatings	Coating
86/09 40	1986	Colturiet GPL	Wattyl-Sigma Coatings Wattyl-Sigma Coatings	Coating
92/ 8036	1997	Conbextra GP	Fosroc Expandite NSW	General purpose non-shrink cementitious grout.
92/ 8036	1997	Concure WB30	Fosroc Expandite NSW	Retains moisture in concrete for effective curing.
88/80 90	1985	Copon EA9	Dimet Western Australia	Coating. Must be matured for a least 7 days after application and before contact with potable water
	1986	Corrocoat EPI	Corrocoat Aust Pty Ltd	Coating
88/80 90/31	1992	Corroguard EP	Corroless Australia/Pics- Axlo Gp. PO Box 265 Altona Vic 3018	Epoxy, reinforced fibre coating for water tanks
88/80 90/31	1992	Corroless RF35	Corroless Australia/Pics- Axlo Gp. PO Box 265 Altona Vic 3018	Epoxy, reinforced fibre coating for water tanks
92/80 36/08	1933	Cotene 9121/70A Black	Birwick march Pty Ltd	Construction of solar hot water systems
92/8		Coterie 9121/70A Black	Solco International	Solar hot water system Polyethylene liner
86/09 40	1986	Crystic 491	Monsanto Australia	Coating
EHB- 1509	2009	Deacon 360-FG	Deacon Industries Inc.	Reseal packing glands of sluive valves.
EHB- 1480	2009	Denso Butyl Primer & Tape	Denso (Australia) Pty Ltd	Corrosion prevention of tank steel columns
88/80 90/30	1990	Derbigum SP Bitumen Membrane	Derbit Australia	Lining material



DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
EHB-1339	2009	Devcon Brushable Ceramic	ITW Polymers & Fluids	Corrosion control
92/80 36/13	1994	Drizoro Maxplug	Great Western Coatings	Concrete & masonry gap filler
88/80 90/2	1985	Dulux Epoxy Bildcote	Dulux Australia	Coating
88/80 90/17	1989	Dulux Ferrodor EPX Epoxy Paint	Dulux Australia	Coating. Natural Steel Grey, St Enoch Grey
0a07t h1a	2010	Dupont Tank Tan EFT-602-P7	Dupont	Adherence to NSF 61 approval conditions
90/81 63	1991	Dyna Valve-Jumper Valve	Aplitek (Qld) Matro Labs	Tap washer
99/ 6075	1999	EDPM compound 5567	Tyco Water Pty Ltd	Pressure seal in steel pipelines
88/80 90/19	1989	Emastak	Gating Pty Ltd, Barry Arnold	Flush for 10 days and drain to waste
88/80 90/33	1991	Epigen 1311	Pearless Industries Systems	Waterproof coating
88/80 90	1989	Exit Rust	Exit Rust Corp	Pre-treatment of metallic surfaces
92/ 8036	1997	Expandaf foam Strip	Fosroc Expandite NSW Thermotec Australia NSW	Joint filler in concrete
88/80 90	1989	Ferroguard	Newcastle Chemicals	Pre-treatment of metallic surfaces
88/80 90	1986	Fibretak;	Calmarc Chemicals	Coating
EHB-3010	2011	Flexus Shotbond	ITW New Zealand Ltd	Lining of drinking water pipes. Contact DOH for approval conditions.
88/80 90	1986	Fluigide	Corrocoat Australia Pty Ltd	Coating
88/80 90	1986	Fluigide E	Corrocoat Australia Pty Ltd	Coating
88/80 90		Gipchem Permafex	Gippsland Chemicals	Mt Yokine Reservoir only
88/80 90/09	1988	Glass Fibre Reinforced Polyester	FG Industries	Storage tank construction
00/ 6044	2000	GPR	Grace Construction Products	Water reducing agent for mortar mixes
88/80 90/50	1992	Gruvlock Compound EP10059	Grinnell Supply Sales	Gasket sheeting, cold water use only
88/80 90/26	1990	Hobas, Centrifugally Cast GRP Pipes	James Hardie and Coy Pty Ltd	Water Pipes



DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
88/80 90	1985	Hot Water Resistant Epoxy	Taubmans Pty Ltd	Coating. Must be matured so that the migration of organic solvents into water is minimised
88/80 90	1985	Hycote 151	Underwater technology corp	Coating
92/ 8036	1997	Hydrocell	Fosroc Expandite NSW Thermotec Australia NSW	Joint filler in concrete
92/80 36/03	1993	Hydrotite CJ 0725-3K Rubber Sealant	Corkjoint (Australia) Pty Ltd	Sealant for concrete joints
92/80 36/03	1993	Hydrotite SS 0220 Rubber sealant	Corkjoint (Australia) Pty Ltd	Sealant for concrete joints
92/9	1993	Innotech Rain Water Tanks	Innotech Industrial Supplies, WA	Polyethylene water tanks for domestic supply
88/80 90/27	1990	Interline 925 Solventless Epoxy Resin (water tank lining)	Taubmans Pty Ltd	Coating
88/80 90/05	1988	Krystol	Crommelin Chemicals (WA)	Coating – product must be cured for 14 days before use
88/46	1991	Leakmaster LVI	Polyfoam Pty Ltd	Sealant
90/81 63	1992	Magnaspheres (granules)	Steetley	Increased pH of acid water
88/80 90	1986	Merco 219	Bestobell Engineering Products	Coating
00/ 6180	2001	MIEX DOC Resin	Orica Advanced Technologies	Water treatment system
88/80 90/45	1991	Neste 0909 polyethylene manufacture	Morris White Pty Ltd	Lining material. Tanks to be flushed before use
92/ 8036	1997	Nitocote EP405	Fosroc Expandite NSW	Lining and water-proofing of tanks
88/80 90/40	1991	Noverox AX/Sx	General & Technical Distributors, Balcatta WA	Hot water tank and pipe anti-rust compound
EHB- 3010	2011	Nukote ST Polyurea	Nukote Distributions Pty Ltd	Liner in potable water tanks. Contact DOH for approval conditions.
88/80 90/08	1991	Nylex Potable Membrane	Nylex Corp Aust Stockbrands Pty Ltd	Lining material
88/80 90/10	1988	Nylon tapping bands	Stockbrands Company Pty	1. Must be applied to outer surfaces of water pipes. 2. Underground pipes only.



DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
88/80 90	1986	Pabkote	Pabco Products	Emulsion for water proofing
88/80 9012	1989	Peratol	BTR Industrial Products Pty Ltd	Sealant. Must be cured for 5 days after application and water must be held a further 10 days once the storage tank or reservoir is filled.
88/80 90	1986	Pliseal AC	Calmarc Chemicals	Coating
88/80 90	1986	Pliseal S B;	Calmarc Chemicals	Coating
88/80 90	1987	Polyethylene Pipes	Industrial Pipe Systems	Pipes
88/80 90	1985	Polyglass "VE"	Corrocoat (Aust)	Vinyl ester resin glass reinforced
86/ 940	1986	PU 119	Ludavici JC & Son Ltd	Washers
86/ 940	1986	PU40	Ludavici JC & Son Ltd	Washers
03/ 6935	2003	PV Liquid Vinyl (PV311-Top)	Industrial Coating Solutions PTY Ltd	Protective membrane
97/ 7042	1997	Qualipoly Isophthalic Polyester Resin K530	Qualipoly Chemical Corp. Taiwan ROC	Fabrication of fiberglass water tanks.
88/80 90/38	1991	Radcon #7	Crommelin Chemicals (WA)	Coating
88/80 90	1989	Ranex rust converter	Landra nominees Pty Ltd	Pre-treatment of metallic surfaces
92/ 8036	1997	Renderroc HB40 with SBR primer	Fosroc Expandite NSW	High performance medium-weight concrete reinstatement mortar.
92/ 8036	1997	Renderroc LA55	Fosroc Expandite NSW	Single component free-flowing low alkali micro-concrete.
92/ 8036	1997	Renderroc S	Fosroc Expandite NSW	Single component structural grade polymer modified concrete reinstatement mortar.
88/80 90	1989	Revenge rust converter	Landra nominees Pty Ltd	Pre-treatment of metallic surfaces
EHB- 3010	2011	Scubapox 1725	National Maintenance Products Pty Ltd	Sealant for cracks in service tanks and reservoirs
88/48	1991	Sigmaguard CSF75	Wattyl (QLD)	Coating. Water containers to be flushed before use.
88/80 90/37	1991	Silkaflex 1 a	Sika Aust Pty Ltd Willetton, WA	Sealing small surface areas, joints, cracks, etc



DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
	1987	Srataflo	Towner & Sons Pty Ltd	Bone casing, only. Formulation to remain same
92/8036	1997	Supercast PVC	Fosroc Expandite NSW	Waterstop
92/8036	1997	Supercast SW	Fosroc Expandite NSW	Waterstop
88/8090	1985	Taubmans Clear Silicone Epoxy	Taubmans	Coating
88/8090	1985	Taubmans HiBuild Epoxy (Series 70)	Taubmans P/L	Coating
88/8090/04	1989	Thoroseal	ICI Building Products	Coating
92/8036/10	1993	Thortex Cerami-Tech CR	Simtech Sales & Services, Carine WA	Solvent-free lining material for pumps, pipes etc. Cold water applications only.
88/8090/34	1990	Trafab (Aqualiner)	Rheem Aust	Lining material water tanks
90/8163	1992	Tubemakers rubber ring joint lubricant No 2	Tubemakers Pty	Lubricant for cold water applications only.
88/8090	1986	Tufcote: Flexiglas (with Tufcote)	Calmarc Chemicals	Coating
88/8090	1986	Tufseal 24S Flexiglas (with Attaflex)	Calmarc Chemicals	Coating
88/8090	1986	Tufseal 35E; Fibretak	Calmarc Chemicals	Coating
80/8090	1990	Turbomag Electromagnetic water treatment system	Turbomag Australia Pty Ltd	Scale & corrosion removal
88/8090/02	1990	UPVC Pressure Pipe	Humes Plastics Pty Ltd	Pipes
88/8090/15	1989	Ureseal 270	ICI Building Products	Reservoir sealant
EHB-01339	2010	VESPEL CR-6100	DuPont De Nemours Int.	Wear resistance bearing material
88/8090/49	1992	Vinidex Jointing Lubricant	Vinidex Tubemakers Pty Ltd	Lubricant for rubber ring joints
80/8090	1988	Waterplug	ICI Building Products	Direct application cracked pipes
04/07215	2005	WR-525 Carbon Fibre Reinforced PEEK (polyaryletherketone polymer) Composite	Victrex plc	Drinking water pumping applications
EHB-3010	2011	Yokoham floating fender pneumatic	Yokohama	Plug on scour pipes.



DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
EHB 1290	2009	ZAVLAR Liquid Rubber	Liquid Rubber Australia	Internal coating for clearwater tanks
88/80 90/20	1992	Z Bond roof and gutter silicone sealant	Rhone Poulenc	Sealants for joints, rivets, screws
88/80 90/20	1992	Z Bond V60 Glazing silicone	Rhone Poulenc	Sealants for joints, rivets, screws

SCHEDULE 6 - Materials Assessed - Not Requiring Approval (Subject to Condition)

The following table includes products that have been presented to and noted by the Department of Health but do not require approval as they are to be removed before drinking water is produced or used in accordance with the restrictions or comments stated below.

DoH REF	Year Assessed	PRODUCT	COMPANY	RESTRICTION OR COMMENT
04/6089	2004	AMC Pac L	Australian Mud Company Pty	To be removed from final production water.
04/6089	2004	AMC Pac R	Australian Mud Company Pty	To be removed from final production water.
04/6089	2004	Aus-Det	Australian Mud Company Pty	To be removed from final production water.
04/6089	2004	Aus-Dex	Australian Mud Company Pty	To be removed from final production water.
04/6089	2004	Aus-Gel Xtra	Australian Mud Company Pty	To be removed from final production water.
04/6089	2004	Bio-Vis	Australian Mud Company Pty	To be removed from final production water.
04/6133	2004	Ciba Alcomer 72L	ADG Technology Pty Ltd	To be removed from final production water.
EHB-01281	2009	DRILPLEX HDD	M-I Swaco Pty Australia	To be removed from final production water.
EHB-01281	2009	FLO-PLEX	M-I Swaco Pty Australia	To be removed from final production water.
04/6133	2004	Hibitol HV	ADG Technology Pty Ltd	To be removed from final production water.
04/6089	2004	Liqui-Pol	Australian Mud Company Pty	To be removed from final production water.
04/6133	2004	Max Gel Polypac – All grades	ADG Technology Pty Ltd	To be removed from final production water.
EHB-01281	2009	MAX GEL	M-I Swaco Pty Australia	To be removed from final production water.
04/6133	2004	Poly-Plus (Liquid)	ADG Technology Pty Ltd	To be removed from final production water.
04/6133	2004	Poly-Plus Dry	ADG Technology Pty Ltd	To be removed from final production water.
EHB-01281	2009	POLYSWELL	M-I Swaco Pty Australia	To be removed from final production water.
04/6133	2004	Potassium chloride	ADG Technology Pty Ltd	To be removed from final production water.
04/6133	2004	Potassium hydroxide	ADG Technology Pty Ltd	To be removed from final production water.
EHB-01281	2009	RINGFREE	M-I Swaco Pty Australia	To be removed from final production water.
EHB-01281	2009	ROD EASE	M-I Swaco Pty Australia	To be removed from final production water.
04/6133	2004	SAPP (Sodium acid pyrophosphate)	ADG Technology Pty Ltd	To be removed from final production water.



04/ 6089	2004	Well-Clean	Australian Mud Company Pty	To be removed from final production water.
04/ 6089	2004	Xan-Bore	Australian Mud Company Pty	To be removed from final production water.



SCHEDULE 7 - Chemicals Approved For Addition To Drinking Water.

Chapter 8, Drinking water treatment chemicals of the 2004 Australian Drinking Water Guidelines describe processes, procedures and chemicals that have been approved for use in drinking water.

The following list is a compilation of chemicals either accepted or approved by the Department of Health for use in drinking water.

This list does not include chemicals and procedures used to maintain water treatment and distribution systems (see Schedule 8) or materials approved for use in contact with drinking water (see Schedule 5).

Chemical	Formula	Reference	Restriction or Comment
Aluminum chlorohydrates	$AlCl(OH)_5$	NHMRC 2005	
Aluminum sulphate (alum)	$Al_2(SO_4)_3$	AWWA B403-82	
Ammonia (ammonium hydroxide)	NH_3 (aq)	FCC p. 20-21	
Ammonium sulphate	$(NH_4)_2SO_4$	AWWA B302-81	
Aquamax RO608	-	0a045a	
Calcium Carbonate Redgate Lime	$CaCO_3$	DoH 06-06032	Drinking water treatment chemical contaminants shall not exceed the RMIC as described by Chapter 8.8 of the 2004 ADWG.
Calcium Chloride	$CaCl_2$	DoH 04-06352	Max rate 100mg/L Food grade (99%) (Contaminants <5ppm Pb <3ppm As)
Calcium hydroxide	$Ca(OH)_2$	AWWA B202-83	
Calcium hypochlorite	$Ca(OCl)_2$	AWWA B300-80	
Calcium oxide	CaO	AWWA B202-83	
Calcium sodium polyphosphate silicate		NHMRC 1980 (90th Session, p.22)	
Calgon T	Sodium hexametaphosphate	AWWA B502-83	
Carbon, granulated activated (GAC)	C	AWWA B604-96	
Carbon, powdered activated (PAC)	C	AWWA B600-78	
Chlorine	Cl_2	AWWA B301-81	
Chlorine dioxide	ClO_2	NHMRC 2005	
Calcium hypochlorite	$Ca(OCl)_2$	AWWA B300-80	
Calcium hydroxide	$Ca(OH)_2$	AWWA B202-83	
Copper sulphate	$CuSO_4 \cdot 5H_2O$	AWWA B602-80	
Ferric chloride	$FeCl_3 \cdot 6H_2O$	AWWA B407-83	

Chemical	Formula	Reference	Restriction or Comment
Ferric sulphate	$Fe_2(SO_4)_3$	NHMRC 1983 (95th Session, p.27)	
Granular Activated Alumina (DD – 6)	Al_2O_3	NSF/ANSI Standard 61	
GMA Garnet	$Fe_3Al_2(SiO_4)_3$	DOH EHB-1085	Drinking water treatment chemical contaminants shall not exceed the RMIC as described by Chapter 8.8 of the 2004 ADWG. Not approved for use by individual (home) consumers
Hydrex 4101	-	0a18th2a	
Hydrex 4701	-	0a04th3a	Contact Department of Health for information
Hydrex 4703	-	0a04th4a	Contact Department of Health for information
Hydrex 4705	-	0a18th1a	Contact Department of Health for information
Hydrex 4710	-	0a18th1a	Contact Department of Health for information
Hydrex 4715	-	0a05th1a	Contact Department of Health for information
Hydrochloric acid	HCl	ADWG 2005	
Hydrofluosilicic acid (Fluosilicic acid)	H_2SiF_6	AWWA B703-84	
Hydrogen peroxide	H_2O_2	FCC p.146-147	
Hydroxylated ferric sulphate		NHMRC 2005	
Hypersperse MDC220	-	0a04th7a	
Hypersperse MSI300	-	0a04th6a	
Magnetite	Fe_3O_4		
Ozone	O_3	ADWG 2004	
Phoslock	-	06-06384	Contact Department of Health for information
Polyacrylamides and acrylic acid polymers and copolymers	$(CH_2CHCONH_2)_8$ and $(CH_2CHCOOH)_8$	NHMRC 1977, 1979 (84 th Session, p.22 and 88th Session, p.21	
Polyaluminium chloride	$Al_8(OH)_{10}SO_4Cl_{12}$	NHMRC 1979 (88th Session, pp.17-18)	
Polyaluminium silicate sulfate		ADWG 2004	
Polydimethyldiallyl ammonium chloride	-	NHMRC 1982 (93rd Session, pp.19-20)	

Chemical	Formula	Reference	Restriction or Comment
Potassium permanganate	KM_8O_4	AWWA B603-83	
Silver hydrogen peroxide	$Ag^+.H_2O_2$	NHMRC 1989 (107 th Session p17)	
Sodium alginate	-	FCC p.274	
Sodium aluminate	$NaAlO_2$	AWWA B405-83	
Sodium bicarbonate	$NaHCO_3$	FCC p.278	
Sodium carbonate	Na_2CO_3	AWWA B201-80	
Sodium chloride	$NaCl$	AWWA B200-78	
Sodium fluoride	NaF	AWWA B701-84	
Sodium fluosilicate (Sodium silicofluoride)	Na_2SiF_6	AWWA B702-84	
Sodium hexametaphosphate	$(NaPO_3)_6$	AWWA B502-83	
Sodium hydroxide	$NaOH$	AWWA B501-80	
Sodium hypochlorite	$NaOCl$	AWWA B300-80	
Sodium metabisulphite	$Na_2S_2O_5$	DoH 06-06237	Drinking water treatment chemical contaminants shall not exceed the RMIC as described by Chapter 8.8 of the 2004 ADWG
Sodium silicate	$Na_2O.xSiO_2$ ($x = 3-5$)	AWWA B404-80	
Sodium tripolyphosphate	$Na_5P_3O_{10}$	ADWG 2004	
Sulphuric acid	H_2SO_4	FCC p.317-18	
Tanamet crystals	-	DoH 07-06010	Drinking water treatment chemical contaminants shall not exceed the RMIC as described by Chapter 8.8 of the 2004 ADWG. Not approved for use by individual (home) consumers
Zinc orthophosphate	$Zn_3(PO_4)_2$	NHMRC 1987 (104 th Session p32)	



SCHEDULE 8 - Chemicals and Procedures used to maintain water treatment and distribution systems

The following chemicals and procedures used to maintain water treatment and distribution systems have been approved by the Department of Health.

Water treatment systems may include membrane, reverse osmosis and ultra violet filtration plants. Water distribution systems include bores, mains and tanks.

This list does not include water treatment chemicals (see Schedule 7) or materials in contact with drinking water (see Schedule 5).

DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
06/ 06194	2006	Adsorbsia GTO Titanium Based Adsorbent	Dow Chemical (Australia) Ltd	Arsenic removal. Arsenic monitoring to be conducted in the reticulated supply as a "key characteristic", until the lifespan of the product is determined.
88/80 90/07	1990	ALBA Bore Treatment Antibacterial	Chem Chemicals and Malcolm Thompson Pumps	Flush bore for 30 minutes after application
EHB/ 00870	2008	Bio D-Scaler	Bio Green Chemicals Pty Ltd	Treated equipment to be flushed until water is clear.
92/80 36/06	1993	Boreclean	Boretech, Qld	Rehabilitation of water bores. Product to be diluted to 10% and flush bore for 30 minutes before use.
92/80 36/07	1993	Boreclean forte	Carela Australia Pty Ltd	Rehabilitation of water bores. Product to be diluted to 10% and flush bore for 30 minutes before use.
01/ 6614	2001	Boresaver Ultra C	Aquabiotics Pty Ltd	Residual levels of copper and oxalate must comply with drinking water guidelines.
EHB 00009	2008	BluBac BluBac Xtra	Clearbore Pty Ltd	Flush equipment with at least 5 times the total treated volume with untreated water, or until pH is within 0.5 pH units of the original untreated water.
88/80 90/32	1990	Carrela-Bio-Plus Carrel a-Bio-Plus- Forte	George Roberts and Associates	Application for bore treatment and water tanks (cleaning, disinfection) Flush bore for 30 minutes after treatment

DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
EHB-00102	2007	Citric Acid	Redox Chemicals	To clean ultra filtration membranes. Isolate membranes from drinking water stream. Soak in water for 30 minutes prior to return to service.
06/6331	2006	Clearbore	Clearbore Pty Ltd	Post treatment flushing and testing required
07/06281	2007	DBNPA 2,2-dibromo-3-nitrilopropionamide	DOW Chemicals	To remove membrane biofouling. Operational conditions apply.
86/#	1986	Fertan Rust Converter	Fertan Australia and New Zealand	Rust treatment only
EHB/00869	2008	Glycerol	Klen International	Membranes to be purged to waste before being used to supply drinking water.
EHB/1731	2009	Hypersperse MDC707	GE Betz Pty Ltd	Antiscalant for RO membranes
00/6180	2001	MIEX DOC Resin	Orica Advanced Technologies	Water treatment system
88/8090/47	1991	Occtech D24	Occtech Corp. Pty Ltd O'Connor, WA	Water treatment for pipes (corrosion)
88/8090/44	1991	PALTEM	Balfour Beatty	Pipeline Auto Lining System
EHB-3010	2011	PermaClean PC 77	Nalco	Filtration membrane cleaner. Contact DOH for conditions of approval.
EHB-3010	2011	PermaClean PC 98	Nalco	Filtration membrane cleaner. Contact DOH for conditions of approval.
EHB-3010	2011	PermaClean PC 99	Nalco	Filtration membrane cleaner. Contact DOH for conditions of approval.
06/6356	2006	Permatreat PC 1020	Ondeo Nalco	Membrane antifoulant. Chapter 8, 2004 ADWG conditions apply.
06/6355	2006	Permatreat PC 191	Ondeo Nalco	Membrane antiscalant Chapter 8, 2004 ADWG conditions apply.
06/6357	2006	Permatreat PC 510	Ondeo Nalco	Silica antifoulant. Chapter 8, 2004 ADWG conditions apply.
06/6384	2007	Phoslock	Phoslock Water Solutions	Limited reservoir trial application subject to specific conditions.
95/6134	2002	PVA (bags)	Orica Chemicals	PVA bags use to contain fluoride.
06/6480	2007	Quantum Filtration DMI 65	Quantum Filtration Medium Pty Ltd	Iron/Manganese removal. Chapter 8, 2004 ADWG conditions apply.

DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
99/6524	2003	Quinplex White Oil (4010 H1)		Artesian bore lubricant
86/0940	1985	Turbomag Electro-magnetic Water Treatment System	Turbomag Australia Pty Ltd	Scale & corrosion removal and prevention
88/8090/41	1992	Wellchem Claysperse – Downhole Dispersant	Challenge Chemicals Australia	Flush bore for 30 minutes
88/8090/41	1991	Wellchem Nu Downhole Bacterial Acid	Challenge Chemicals Australia	Flush bore for 30 minutes
88/8090/41	1992	Wellchem Well Clean – Downhole Antibacterial Acid	Challenge Chemicals Australia	Flush bore for 30 minutes



SCHEDULE 9 - Chemicals and Materials Used in Catchment Areas

The following products have been assessed and approved by the Department of Health for use in catchment areas.

This list does not include water treatment chemicals (See Schedule 7), materials in contact with drinking water (see Schedule 5) or chemical and procedures used to maintain water treatment and distribution systems (see Schedule 8).

DoH REF	Year Approved	PRODUCT	COMPANY	RESTRICTION OR COMMENT
EHB-2152	2009	Aquatain	Ultimate Products (Aust) Pty Ltd	Contact Department of Health for information
03/7168	2009	Road Master	Road Master Pty Ltd	Road base stabilization
04/6898	2006	PK-4 (surface stabilizer)	Eco Enzymes Australia	Only surfaces that are not subjected to continual immersion may be treated.
06/6330	2007	Polycom	Biocentral Laboratories	Follow manufacturer's instructions.