



Our Reference : REF130086-0005
Enquiries : M. Marchesan
Telephone : (08) 8259 0332
Facsimile : (08) 8259 0228
Date : 7th November 2000

Xypex Australia
PO Box 255
Lavington 2641

Dear Sir,

Attached is a report to AS/NZS 4020 -1999 for the Xypex Concentrate submitted for testing. The product passed all the requirements of the Standard at an exposure of 15000 mm² per Litre.

Should you have any enquiries about the report or any other matters pertaining to the Standard please contact Marilena Marchesan or Michael Glasson on 08 8259 0332.

A handwritten signature in blue ink that reads 'M. Marchesan'.

Marilena Marchesan
SENIOR TECHNICAL OFFICER

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.2 - TASTE OF WATER EXTRACT

TESTING LABORATORY AUSTRALIAN WATER QUALITY CENTRE
PORT WAKEFIELD ROAD, BOLIVAR, SOUTH AUSTRALIA
(NATA Accreditation No. 1115)

REPORT NUMBER 4007/92.698

SAMPLE REFERENCE 130086-0005

DATE 27/10/00

TRADE NAME OF PRODUCT XYPEX CONCENTRATE

COMPOSITION OF PRODUCT CEMENTITIOUS.

PRODUCT MANUFACTURER XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

SUBMITTING ORGANISATION XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

USE OF PRODUCT APPLIED COATING - WATERPROOF CONCRETE.

DESCRIPTION OF SAMPLE The sample was prepared, as instructed by the submitting organisation. The product was applied to the surface of two glass panels with dimensions 75 x 100 mm at a thickness of 1.25 mm and providing a total surface area of 15000 mm² per Litre. After 48 hours a second coat was applied and the samples were then cured for 7 days at 25°C.

Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

CEMENTITIOUS PRODUCTS A standard moist-curing of 28 days at 22°C was performed in accordance with AS 1012.8. After curing the samples were pre-conditioned with water with an aggressivity index of 12.6. Seven sequential soakings were performed to obtain a pH < 9.0

TEST METHOD AS/NZS 4020:1999 TASTE OF WATER EXTRACT
(APPENDIX C)

SCALING FACTOR Not applied.

RESULTS No tastes were detected in the controls or in the extracts prepared at an exposure of 15000 mm² per Litre with chlorinated and non-chlorinated water.

EVALUATION The product passed the requirements of clause 6.2 when tested at an exposure of 15000 mm² per Litre.

NUMBER OF SAMPLES Two samples were tested.




M. MARCHESAN - SENIOR TECHNICAL OFFICER
APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.3 - APPEARANCE OF WATER EXTRACT

TESTING LABORATORY	AUSTRALIAN WATER QUALITY CENTRE PORT WAKEFIELD ROAD, BOLIVAR, SOUTH AUSTRALIA (NATA Accreditation No. 1115)														
REPORT NUMBER	4007/92.698														
SAMPLE REFERENCE	130086-0005														
DATE	27/10/00														
TRADE NAME OF PRODUCT	XYPEX CONCENTRATE														
COMPOSITION OF PRODUCT	CEMENTITIOUS.														
PRODUCT MANUFACTURER	XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.														
SUBMITTING ORGANISATION	XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.														
USE OF PRODUCT	APPLIED COATING - WATERPROOF CONCRETE.														
DESCRIPTION OF SAMPLE	<p>The sample was prepared, as instructed by the submitting organisation. The product was applied to the surface of two glass panels with dimensions 75 x 100 mm at a thickness of 1.25 mm and providing a total surface area of 15000 mm² per Litre. After 48 hours a second coat was applied and the samples were then cured for 7 days at 25°C.</p> <p>Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.</p>														
CEMENTITIOUS PRODUCTS	A standard moist-curing of 28 days at 22°C was performed in accordance with AS 1012.8. After curing the samples were pre-conditioned with water with an aggressivity index of 12.6. Seven sequential soakings were performed to obtain a pH < 9.0														
TEST METHOD	AS/NZS 4020:1999	APPEARANCE OF WATER EXTRACT (APPENDIX D)													
SCALING FACTOR	A scaling factor of .45 applied.														
RESULTS	<table><thead><tr><th></th><th>Test (- Blank)</th><th>Maximum Allowed</th><th></th></tr></thead><tbody><tr><td>Colour</td><td>< 2.0</td><td>5.0</td><td>HU</td></tr><tr><td>Turbidity</td><td>< 0.49</td><td>0.5</td><td>NTU</td></tr></tbody></table>				Test (- Blank)	Maximum Allowed		Colour	< 2.0	5.0	HU	Turbidity	< 0.49	0.5	NTU
	Test (- Blank)	Maximum Allowed													
Colour	< 2.0	5.0	HU												
Turbidity	< 0.49	0.5	NTU												
EVALUATION	The mean value of the test extract minus the blank for the final extract passed the requirements of clause 6.3 when tested at an exposure of 6600 mm ² per Litre with a scaling factor of .45 applied.														
NUMBER OF SAMPLES	One sample was tested.														


P.M.THOMAS - SENIOR CHEMIST
APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.4 - GROWTH OF AQUATIC MICRO-ORGANISMS

TESTING LABORATORY AUSTRALIAN WATER QUALITY CENTRE
PORT WAKEFIELD ROAD, BOLIVAR, SOUTH AUSTRALIA
(NATA Accreditation No. 1115)

REPORT NUMBER 4007/92.698

SAMPLE REFERENCE 130086-0005

DATE 27/10/00

TRADE NAME OF PRODUCT XYPEX CONCENTRATE

COMPOSITION OF PRODUCT CEMENTITIOUS.

PRODUCT MANUFACTURER XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

SUBMITTING ORGANISATION XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

USE OF PRODUCT APPLIED COATING -WATERPROOF CONCRETE.

DESCRIPTION OF SAMPLE The sample was prepared, as instructed by the submitting organisation. The product was applied to the surface of two glass panels with dimensions 75 x 100 mm at a thickness of 1.25 mm and providing a total surface area of 15000 mm² per Litre. After 48 hours a second coat was applied and the samples were then cured for 7 days at 25°C.

Extracts were prepared using a 1000 mL volume of water.

CEMENTITIOUS PRODUCTS A standard moist-curing of 28 days at 22°C was performed in accordance with AS 1012.8. After curing the samples were pre-conditioned with water with an aggressivity index of 12.6. Seven sequential soakings were performed to obtain a pH < 9.0

TEST METHOD AS/NZS 4020:1999 GROWTH OF AQUATIC MICRO ORGANISMS (APPENDIX E)

INOCULUM The volume of inoculum was 100 mL.

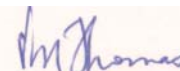
SCALING FACTOR Not applied.

RESULTS

Mean Dissolved Oxygen	Control	6.7	mg/L
Mean Dissolved Oxygen Difference	Positive Reference	4.9	mg/L
	Negative Reference	0.2	mg/L
	Test 0.1	mg/L	

EVALUATION The Mean Dissolved Oxygen Difference in the extracts did not exceed the maximum allowed. Accordingly the product passed the requirements of clause 6.4 at an exposure of 15000 MM² per Litre.

NUMBER OF SAMPLES One sample was tested.



P.M.THOMAS - SENIOR CHEMIST
APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.5 - CYTOTOXIC ACTIVITY OF WATER EXTRACT

TESTING LABORATORY

INSTITUTE OF MEDICAL AND VETERINARY SCIENCE
FROME ROAD, ADELAIDE, SOUTH AUSTRALIA
(NATA Accreditation No. 2348)

REPORT NUMBER 4007/92.698

SAMPLE REFERENCE 130086-0005

DATE 27/10/00

TRADE NAME OF PRODUCT XYPEX CONCENTRATE

COMPOSITION OF PRODUCT CEMENTITIOUS.

PRODUCT MANUFACTURER XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

SUBMITTING ORGANISATION XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

USE OF PRODUCT APPLIED COATING - WATERPROOF CONCRETE.

DESCRIPTION OF SAMPLE The sample was prepared, as instructed by the submitting organisation. The

product was applied to the surface of two glass panels with dimensions 75 x 100 mm at a thickness of 1.25 mm and providing a total surface area of 15000 mm² per Litre. After 48 hours a second coat was applied and the samples were then cured for 7 days at 25°C.

CEMENTITIOUS PRODUCTS A standard moist-curing of 28 days at 22°C was performed in accordance

with AS 1012.8. After curing the samples were pre-conditioned with water with an aggressivity index of 12.6. Seven sequential soakings were performed to obtain a pH < 9.0

Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

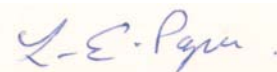
TEST METHOD AS/NZS 4020:1999 CYTOTOXIC ACTIVITY OF WATER EXTRACT (APPENDIX F)

SCALING FACTOR Not applied.

RESULTS **Confluent** growth of regularly-shaped cells was observed in the containers with the control and test extracts.

EVALUATION No cytotoxic response was detected; accordingly the product passed the requirements of clause 6.5 relating to cytotoxic activity when tested at an exposure of 15000 MM² per Litre.

NUMBER OF SAMPLES One sample was tested.



L. PAYNE – SENIOR TECHNICIAN
APPROVED SIGNATORY

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.6 - MUTAGENIC ACTIVITY OF WATER EXTRACT

TESTING LABORATORY

AUSTRALIAN WATER QUALITY CENTRE

PORT WAKEFIELD ROAD, BOLIVAR, SOUTH AUSTRALIA

(NATA Accreditation No. 1390)

REPORT NUMBER 4007/92.698

SAMPLE REFERENCE 130086-0005

DATE 27/10/00

TRADE NAME OF PRODUCT

XYPEX CONCENTRATE

COMPOSITION OF PRODUCT

CEMENTITIOUS.

PRODUCT MANUFACTURER

XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

SUBMITTING ORGANISATION XYPEX AUSTRALIA, UNION RD, LAVINGTON, NSW.

USE OF PRODUCT APPLIED COATING -WATERPROOF CONCRETE.

DESCRIPTION OF SAMPLE

The sample was prepared, as instructed by the submitting organisation. The product was applied to the surface of two glass panels with dimensions 75 x 100 mm at a thickness of 1.25 mm and providing a total surface area of 15000 mm² per Litre. After 48 hours a second coat was applied and the samples were then cured for 7 days at 25°C.

Extracts were prepared using 1000 mL volumes of 50 mg/L hardness water.

CEMENTITIOUS PRODUCTS

A standard moist-curing of 28 days at 22°C was performed in accordance with AS 1012.8. After curing the samples were pre-conditioned with water with an aggressivity index of 12.6. Seven sequential soakings were performed to obtain a pH < 9.0

TEST METHOD AS/NZS 4020:1999

MUTAGENIC ACTIVITY OF WATER
EXTRACT (APPENDIX G)

SCALING FACTOR Not applied.

TEST REPORT FOR AS/NZS 4020:1999

CLAUSE 6.6 - MUTAGENIC ACTIVITY OF WATER EXTRACT

REPORT NUMBER 4007/92.698
SAMPLE REFERENCE 130086-0005
DATE 27/10/00
TEST METHOD AS/NZS 4020:1999 MUTAGENIC ACTIVITY OF WATER EXTRACT (APPENDIX G)

RESULTS

BACTERIAL STRAIN	NUMBER OF REVERTANTS per PLATE					
	S9	Blank	Filtrate	Concentrate NPD (20ug)	Positive Controls	2-AF (20ug)
Salmonella typhimurium TA98	-	28, 16, 22	19, 19, 29	27, 25, 23	1050,1050,548	
Mean ± Standard deviation			22.0 ± 6.0	22.3 ± 5.8	25.0 ± 2.0	869.3 ± 279.0
+		29, 24, 19	24, 41, 26	16, 26, 24	-	675,929,1060
Mean ± Standard deviation			24.0 ± 5.0	30.3 ± 9.3	22.0 ± 5.3	-
888.0 ± 195.7						
Salmonella typhimurium TA100	-		156,185,177	128,144,140	175,153,110	596,603,612
Mean ± Standard deviation			172.7 ± 15.0	137.3 ± 8.3	146.0 ± 33.1	603.7 ± 8.0
+		141,160,140	145,161,129	152, 163,132	-	824,904,984
Mean ± Standard deviation			147.0 ± 11.3	145.0 ± 16.0	149.0 ± 15.7	-
904.0 ± 80.0						
					<u>MITOMYCIN C</u> (tug)	
Salmonella typhimurium TA102	-			253,244,287	292,204,287	273,205,199
802,904,1041						
Mean ± Standard deviation				261.3 ± 22.7	261.0 ± 49.4	225.7 ± 41.1
915.7 ± 119.9						
Salmonella typhimurium TA102	+			223,277,220	268,295,197	320,188,286
Mean ± Standard deviation				240.0 ± 32.1	253.3 ± 50.6	264.7 ± 68.5

COMMENTS S9 was used as a metabolic activator. NPD (4-nitro-o-phenylenediamine), Azide, and Mitomycin C are specific positive controls for strains TA 98, TA 100 and TA102 respectively while 2 - AF (2-aminofluorene) when used in conjunction with S9 is a positive control for both TA98 and TA100.

EVALUATION The differences in the mean number of revertants between the blank and test extracts do not exceed two standard deviations; accordingly there is no evidence of any mutagenic effect. The product passed the requirements of clause 6.6 relating to genetic toxicity when tested at an exposure of 15000 mm² per Litre.

NUMBER OF SAMPLES One sample was tested.


M. MARCHESAN - SENIOR TECHNICAL OFFICER
APPROVED SIGNATORY

END OF REPORT