

QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED

30 September 2017



ALEXIUM
SPECIALTY CHEMICALS AND SOLUTIONS

Highlights from The Quarter

Alexium realized another quarter of customer expansion and improving financial performance, with highlights being:

- For the period, Alexium realized positive cash from operating activities of \$358,000, the first cash positive quarter since inception.
- This cash generation is a significant improvement over the \$2.8M cash loss in the previous period and reinforces the cash generative effects from the previously communicated strategy of moving away from low margin, highly customized business, to more profitable revenue streams in growing consumer markets.
- Receipts from customers were \$5.76M for the period, down from \$6.84M during the previous quarter. This decrease was largely due to a combination of continued reduction of low margin business from 2016 and seasonal variation in the bedding industry that has since resumed normal shipment volumes and frequency.
- The positive gross margin trend continued over the period, increasing from 18% in the previous period to 23%.
- With a new debt facility secured during the period, the subsequent \$5M draw down, and cash from operations, the Company's cash position increased from \$3.4M to \$9.45M.
- Our Cash position combined with continuing cash generation provides a solid working capital base to meet rising orders.



Q1 Financial Results Overview

Receipts from Customers

Receipts from customers declined 15.8% over the previous quarter, down to \$5.76M. This decline was largely due to two key drivers:

First, Alexium continues to strategically manage its revenue streams to maximize gross profits and move away from the low margin or unprofitable customized approach used in 2016 to establish brand recognition and demonstrate reliable customer supply chains. This reduced overall revenue for the quarter but increased gross margins. Secondly, our customer base in the mattress industry experienced seasonal variation during the period and regular shipments have now resumed.

A major area of focus for Alexium is to continue to diversify its customer base and markets we are servicing to minimize future seasonal effects or temporary fluctuations in order volumes of any one customer or market.

Key Drivers of Positive Cash

An excellent achievement for the business, Alexium realized its first full quarter of cash positivity, with net cash from operating activities for the period of \$358,000. Two key factors led to profitability during the quarter. First, continued strategic management of 2016 revenue streams resulted in a reduced drain on gross profits which is also reflected in increased gross margins during the quarter. A second key factor was ongoing streamlining of company expenses.

	Q4 2017 Actuals	FY17 Quaterly Average	Q1 2018 Actuals
Research and development	\$ 403	\$ 540	\$ 349
Advertising and marketing	95	97	52
Leased assets	74	68	25
Staff costs	1,097	1,358	876
Administration and corporate costs	468	703	721
Total	\$ 2,137	\$ 2,765	\$ 2,023

By the end of the period, the Company was able to reduce overall staff costs by 20% over the previous quarter and 35% over last year's average while simultaneously increasing the staff costs in the critical areas of Sales and Research by 27% to bring on 2 more chemists, an additional salesperson, and a customer service representative to help facilitate and manage growth.

	FY2017 Totals	Q1 2018 Annualized	Variance
Research and development	\$ 2,158	\$ 1,396	\$ 762
Advertising and marketing	389	208	181
Leased assets	271	100	171
Staff costs	5,431	3,504	1,927
Administration and corporate costs	2,811	2,884	(73)
Total	\$ 11,060	\$ 8,092	\$ 2,968

Research and Development

Research and development outflows were down 13% over the prior quarter as a result of efficiencies related to cross functional development activities. This resulted in a 44% decrease in outflows compared to Q1 in the prior fiscal year. High costs from the first quarter of the previous year were related to increased spending as the Company's new facility was being built and have since normalized. Cash outflows related to R&D are expected to remain relatively flat in the next period as the benefits of these efficiencies continue to ensure higher impact per dollar spent.

Advertising and Marketing

Marketing costs were down 45% from the prior quarter and 57% from Q1 2017. The reduction in expense is due mostly to the process of revamping our marketing strategy to better align with our platform product approach.

Marketing expense is not expected to continue to decline next quarter as the Company is planning new marketing initiatives in several areas including tradeshows, market research, and marketing collateral generation to showcase additional product capability and applicability in new sectors.

Product Manufacturing and Operating Costs

Manufacturing and operating costs were down 57% over the previous quarter and down 22% from the forecast in the June 4C. While a reduction in manufacturing costs was planned as a result of continued raw material price improvements, there was a corresponding reduction related to the temporary variance in sales volume.

In relation to the comparable quarter in the prior fiscal year, manufacturing payments have increased by 22% alongside receipts from customers which have risen by 51%. This improvement of manufacturing and operating costs as a percent of total receipts has been mirrored by continued gross margin growth and positive cash generation during the September quarter.

Projected manufacturing payments are expected to increase in the coming quarter as the payments for large scale raw materials come due and production increases to meet growth in demand prior to the holiday season.

Staff Costs

Staff costs were down 20% from the prior quarter due to management reorganization remuneration changes made during the reporting period.

As a percent of total receipts, staff cost currently represent 15% compared to 24% across fiscal year 2017. As receipts grow, the percentage of employee costs to customer receipts is projected to fall to approximately 12%.

Staff costs are projected to decrease another 12% in the coming quarter as the compensation changes listed above are reflected over an entire reporting period.

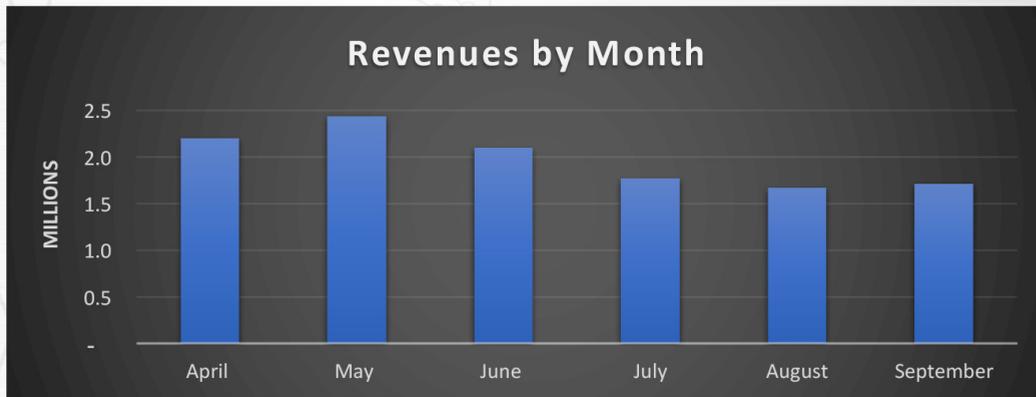
Administration and Corporate Costs

Administration costs were up 53% over the prior period as a result of increases in annual listing, audit, and professional fees which were incurred prior to fiscal year end being paid in the current quarter. These included previous preparatory US audit, SEC and NASDAQ listing expenses.

Normalizing the administration and corporate cash payments results in outflows 11% over the prior quarter but 34% down over the comparable quarter in the prior fiscal year.

Projected administrative costs for the coming quarter are 13% below the current period.

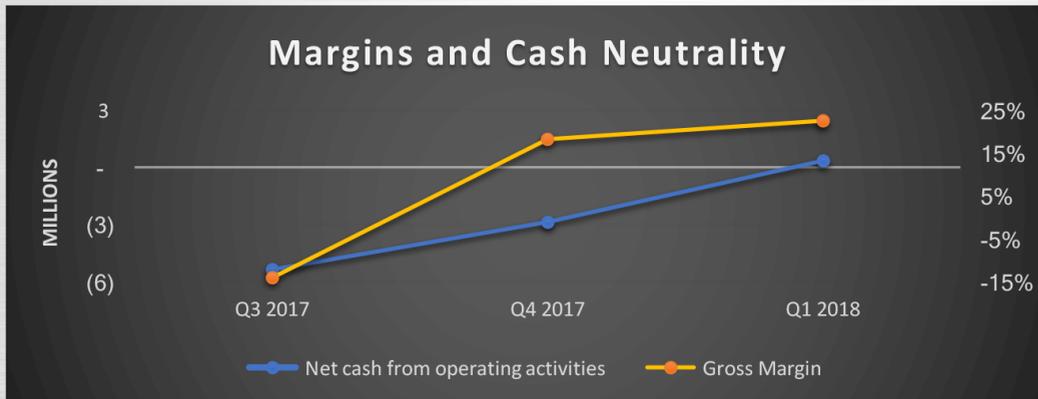
Financial Growth Trends



- Revenue stayed relatively flat during the period. The Group's sales revenue is from mainly from recurring customers, although order size and frequency differs between customers depending on needs which can result in small variations across months.
- Sales Revenue was down \$1.6M from the prior quarter. Several factors contributed to this trend:
 - The US Independence Day holiday in July resulted in a delay in orders as several customers had planned closures during that period.
 - A seasonal slowdown in bedding sales in some end bedding brands resulted in fewer raw material needs in August and September. We have seen these customers return to normal shipment volumes and order frequency
 - The strengthening of the Australian dollar to the US dollar has also had a small effect on reported revenue



- Gross margins continued to grow this period from 18% to 23%. This is in line with the Group's 40% average gross margin goal. This trend is expected to continue as the Company continues to refine its customer base and add profitable sales opportunities to the pipeline.
- Recent new business in the process of scaling up will also further contribute to an increase in gross margins once production scale is reached, further improving the supply chain and raw material relationships Alexium has established.



- This period marks the first quarter of operational positive cash generation in Company history.
- The correlation between improving gross margins and cash generation is largely due to the Company's flat cost structure. Toll manufacturing partners allow the flexibility of low cost manufacturing coupled with almost infinitely scalable production capacity with virtually zero impact to SG&A costs.
- Alexium has made significant improvements to its cost structure, both in improving gross margins and strategically reducing non-operational costs.

This has allowed the Company to focus its resources on items that positively impact the bottom line.

Expansion of Sales and Customer Base

During the period, Alexium continued to expand its customer base by bringing onboard several new accounts. Key efforts of expansion this quarter in the sales pipeline are largely in the flame retardant space whilst Alexicool orders continued on a growth trend as our brand and capability is more widely known in the market. Highlights of the progress in sales include:

- Strong organic growth continues with Alexium's Phase Change Material products with current customers in the Home Textile market. In addition to this organic growth, we have also secured business with four new customers in various mattress component applications.
- Alexium is now scaling up shipments of chemistry into South East Asia for pillow and other home textile applications.
- Robust pipeline of sales opportunities that not only includes securing new business that leverages current successes but also demonstrates new sales from commercializing new products. Over 75% of these new opportunities are in the flame retardant segment across three chemical platforms (Alexiflam NF, Alexiflam FR and Alexiflam PB) with market leaders across the globe. Highlights of these near-term customers:
 - Two major flame retardant fabric manufacturers in Asia
 - Large Chinese producer of tent fabric
 - European producer of emergency tents
 - Global producer of underwear and activewear (Alexicool)

These sales opportunities are highlights of a much larger project pipeline, many of which are in earlier stages of development. This is a positive indicator for future revenue growth in profitable business.

Significant Changes in US Regulatory Landscape benefit Alexium

Alexium's shift from surface functionalization to flame retardants in 2012 was born of the realization that the global regulatory environment was beginning to move the global market away from the incumbent technology of organohalogen chemistries. Until recently, however, only Europe and various US state governments had taken any significant action towards those chemistries by banning a handful of the most toxic organohalogens from use.

On September 20th, 2017 the US Consumer Product Safety Commission (CPSC) voted to begin a process which is likely to result in the ban of the entire class of non-polymeric organohalogen flame retardants, the most sweeping decision of its kind around the world. The CPSC has directed a commission to begin the rulemaking process to ban the sale of four categories of consumer products if they contain any non-polymeric organohalogen flame retardant.

Further to that decision, the CPSC issued guidance to product manufacturers that "the use of OFRs in children's products, upholstered furniture sold for use in residences, mattresses and mattress pads, and plastic casings surrounding electronics to be ill-advised and encourages manufacturers to eliminate using them in such products."

(<https://www.federalregister.gov/documents/2017/09/28/2017-20733/guidance-document-on-hazardous-additive-non-polymeric-organohalogen-flame-retardants-in-certain>)

Subsequent to that action and after the end of the period, the State of Rhode Island, on October 4th, voted to ban any upholstered furniture or mattresses using organohalogen flame retardants from sale in the state. The following day, the state of Washington followed suit, banning the sale of any product using 20 different compounds, many of them organohalogen flame retardants.

(<http://www.ecy.wa.gov/laws-rules/wac173334/x1608a.pdf>)

Ultimately Alexium expects the biggest impact of the CPSC initiating this process will be the state legislation that will transpire as a result of the announcement and therefore any potential change to CPSC staff will not affect the regulatory trend.

These regulatory actions will inevitably require manufacturers of products to seek out alternative cost effective and performance based flame retardant solutions and towards products such as Alexium's environmentally friendly and performance enhancing Alexiflam series of products, which are all either organophosphorous compounds or polymeric in nature. This is an important step in regulation and will allow the Company to capitalize on its position as a non-toxic solutions provider to capture market share from incumbents as bans become effective.

Update on Key Initiatives/Projects

Shift in Focus Toward Growth Through Strategic Partnerships

During the period, Alexium continued to shift away from lower margin bespoke solutions for individual customers towards platform solutions that address significant market gaps. To support this effort, Alexium has begun work with two separate strategy groups. The first group has been engaged to deepen our understanding of the flame retardancy and thermal regulation markets. In particular, this group will identify further gaps both inside and outside of textiles that Alexium can address. With the second strategy group, the focus will be on taking each platform technology and identifying new markets where each technology has value-added differentiation.

The goal of both efforts is two-fold: First, give Alexium better information to help guide future R&D and sales efforts, and secondly, help identify key strategic partners to drive market penetration in areas outside our current expertise. Over the last two years, Alexium has been successful at growing its name and reputation in the specialty chemical supply industry and is managing growth so opportunities do not outstrip employee bandwidth. Key examples of efforts in this area include identifying the right partners/licensees for the following technologies:

- Alexiflam NF for textiles and wood products.
- Alexicool products in development in the building and construction industry.
- Next-generation Alexiflam SYN products for the electronics industry following next generation changes made to the underlying polymers and resins used by customers in the electronics industry.
- Alexiflam FR for aqueous based coatings.

Alexiflam™ NF (Natural Fibers)

As reported in the June quarter, Alexium's latest version of Alexiflam™ NF has passed flammability standards after 100 industrial launderings and chemistry was shipped to the potential licensees for evaluation. The evaluation work is continuing.

We have also engaged market consultants as mentioned above to determine the higher margin use and value in the FR cotton market given in the US market as opposed to Europe, the consumption of cotton FR chemistry is very consolidated, making it easier for direct marketing by Alexium

Also, Alexiflam™ NF is not only suitable for cotton (which goes into workwear and fleece), but also wool and wood (lumber), all of which will have very unique market dynamics. Looking forward, as potential licensees evaluate Alexium's NF product, Alexium will continue to develop go-to-market strategies for each market space and geography.

Military Update

Alexium continues to make progress with our fabric partner toward satisfying all of the weight, breathability and Pyroman requirements of the underlying fabric for treatment with our Alexiflam fire retardant. As previously reported, whilst Alexium achieved all of the technical goals around flame retardancy over a year ago through various efforts with the US Department of Defense (DoD), the goal shifted to produce lighter weight and more breathable base fabrics to which our FR can then be applied

Over the last quarter, the focus of the effort has largely been tweaking the breathability of the fabric to ensure a successful result in a future field evaluation but minimizing the heat flux through the fabric during a fire event. There continues to be mounting pressure on all branches of the military to protect all of its men and women in uniform from fire events and do so in an environmentally-friendly way. Once Alexium and its partner finalize the fabric construction and FR treatment, the project would move into a procurement phase, which includes: hazard assessment, limited user evaluations (i.e. field trials) and specification writing. The Company expects that process to commence within FY2017. This effort, once successful, is expected to cascade into adjacent programs in other branches of the military and US allies in NATO.

A Look Ahead

Penetration into New Key Sectors

Over the next six months, Alexium expects key projects in two new sectors, Protective Coatings and Resins and Disposable Healthcare Nonwovens to convert into active sales. Nonwovens are the predominant textiles used in markets that consume high volumes of low-cost, disposable fabrics and is an exciting space for Alexium. The Company is in late stages of product validation and scale-up with customers in both resins and nonwovens and would represent a significant expansion outside of bedding and the first significant revenue Alexium would realize outside of textiles.

Continued Reduction in Cash Outflows

Based on the several cost saving initiatives the Company has enacted throughout the first quarter, there should be an even further reduction in cash outflows in certain areas, as well as a normalization of several first quarter expenses that are non-recurring on a quarterly basis.

Potential Seasonal Slowdown in Mattress Sector in 2Q

Alexium expects its customer base to continue to expand in 2Q with robust shipments during the quarter. However, historical data shows two headwinds Alexium may face in 2Q. First, mattress sales tend to rise and fall with housing starts, which typically are at their lowest level during the winter months. That translates into a 10-20% slowdown during the fall months of suppliers to the mattress brands as they prepare for the annual reduction in shipments before rising again in the next quarter. The second headwind is that Thanksgiving and Christmas are typically slow periods in the textile industry as companies use that time to shut down and perform once-a-year maintenance of their equipment. However, there are a number of reports showing growth in the US economy as repairs and replacement products are being ordered in response to the recent Hurricane damage and the traditional slowdown in the month of December may be offset by that effect.

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About Alexium International Group Limited:

Alexium International Group Limited (ASX: AJX, AX:AJX, Nasdaq Designation: AXXIY) holds proprietary patent applications for novel technologies developed to provide flame retardancy for a wide range of materials. These environmentally friendly flame retardants have applications for a number of industries and can be customized. Further, Alexium has developed products for a range of other applications including phase-change materials, water repellents, antimicrobials, and combinations thereof. Alexium also holds patents for a process developed initially by the US Department of Defense, which allows for the surface modification and attachment of nano-particles or multiple chemical functional groups to surfaces or substrates to provide functions such as fire retardancy, waterproofing, oil proofing, and antimicrobial treatments. Applications under development include but are not limited to textiles, packaging, electronics, and building materials. Alexium's chemical treatments are currently marketed under the Alexiflam™, Alexiflam FR™, Alexiflam SYN™, Alexiflam NF™, Alexicool™, Alexiflam PB™, Alexiflam AD™ and Alexicool™ brand names. For additional information about Alexium, please visit www.alexiuminternational.com.

Forward Looking Statement:

This release contains forward-looking statements that are based on current expectations, estimates and projections about Alexium's business, management's beliefs and assumptions made by management. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions which are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in such forward-looking statements. Except where required by applicable law, the Company expressly disclaims a duty to provide updates to forward-looking statements after the date of this release to reflect subsequent events, changed circumstances, changes in expectations, or the estimates and assumptions associated with them.

Appendix 4C

Quarterly report for entities subject to Listing Rule 4.7B

Introduced 31/03/00 Amended 30/09/01, 24/10/05, 17/12/10, 01/09/16

Name of entity

ALEXIUM INTERNATIONAL GROUP LIMITED

ABN

91 064 820 408

Quarter ended ("current quarter")

30 September 2017

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	5,764	5,764
1.2 Payments for		
(a) research and development	(349)	(349)
(b) product manufacturing and operating costs	(3,149)	(3,149)
(c) advertising and marketing	(52)	(52)
(d) leased assets	(26)	(26)
(e) staff costs	(876)	(876)
(f) administration and corporate costs	(722)	(722)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	1	1
1.5 Interest and other costs of finance paid	(240)	(240)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (GST received)	8	8
1.9 Net cash from / (used in) operating activities	359	359
2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) property, plant and equipment	(6)	(6)
(b) businesses (see item 10)	-	-
(c) investments	-	-

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
(d) intellectual property	-	-
(e) other non-current assets	-	-
2.2 Proceeds from disposal of:		
(a) property, plant and equipment	-	-
(b) businesses (see item 10)	-	-
(c) investments	-	-
(d) intellectual property	-	-
(e) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
2.6 Net cash from / (used in) investing activities	(6)	(6)

3. Cash flows from financing activities		
3.1 Proceeds from issues of shares	-	-
3.2 Proceeds from issue of convertible notes	-	-
3.3 Proceeds from exercise of share options	457	457
3.4 Transaction costs related to issues of shares, convertible notes or options	-	-
3.5 Proceeds from borrowings	12,161	12,161
3.6 Repayment of borrowings	(6,387)	(6,387)
3.7 Transaction costs related to loans and borrowings	(480)	(480)
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
3.10 Net cash from / (used in) financing activities	5,751	5,751

4. Net increase / (decrease) in cash and cash equivalents for the period		
4.1 Cash and cash equivalents at beginning of quarter/year to date	3,410	3,410
4.2 Net cash from / (used in) operating activities (item 1.9 above)	359	359
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(6)	(6)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	5,751	5,751

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(57)	(57)
4.6	Cash and cash equivalents at end of quarter	9,457	9,457

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	8,137	2,253
5.2	Call deposits	1,320	1,157
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	9,457	3,410

6. Payments to directors of the entity and their associates

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Current quarter \$A'000
138
-

N/A

7. Payments to related entities of the entity and their associates

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

Current quarter \$A'000
210
-

N/A

8.	Financing facilities available <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1	Loan facilities	13,589	13,309
8.2	Credit standby arrangements	-	-
8.3	Other (please specify)	-	-
8.4	Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		
N/A			

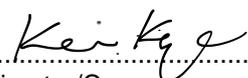
9.	Estimated cash outflows for next quarter	\$A'000
9.1	Research and development	350
9.2	Product manufacturing and operating costs	4,017
9.3	Advertising and marketing	89
9.4	Leased assets	35
9.5	Staff costs	769
9.6	Administration and corporate costs	621
9.7	Other (provide details if material)	-
9.8	Total estimated cash outflows	5,881

10.	Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)	Acquisitions	Disposals
10.1	Name of entity		
10.2	Place of incorporation or registration		
10.3	Consideration for acquisition or disposal		
10.4	Total net assets		
10.5	Nature of business		

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

23 October 2017

Sign here:  Date:

(Director/Company secretary)

Kevin Kye

Print name:

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.