RAJAH & TANN ASIA



COVID-19 AND THE JOURNEY TO RECOVERY



Exploring the Legal and Practical Issues in the Transport of Vaccines

RAJAH & TANN ASIA

CAMBODIA | CHINA | INDONESIA | LAOS | MALAYSIA | MYANMAR | PHILIPPINES | SINGAPORE | THAILAND | VIETNAM

www.rajahtannasia.com

CONTENTS

Contents	2
Introduction	3
Transport Requirements of Vaccines	5
Practical Issues in Transport of Vaccines	7
Overview of Guidelines and Standards	9
Contractual Issues in the Transportation of Vaccines	12
Concluding Words	15
Key Contacts	17
Our Regional Contacts	19
Disclaimer	20



INTRODUCTION



It has often been said that the world is getting smaller, with advancements in technology reducing the boundaries and distances of global transport, trade and communication. However, all journeys have their obstacles, and the events of the past few years have been a clear demonstration of this.

In recent times, the COVID-19 pandemic has been the unifying and defining experience of the international community. Cross-border transport of goods and people has been greatly curtailed, with tighter border restrictions and reduced frequency of passage. Countries have had to change the way they work and move.

The global journey appears now to be entering smoother waters, with countries headed more confidently towards stabilisation and recovery. One of the key components of the recovery plans being adopted by most countries is a concerted drive to provide vaccinations for their citizens and residents. The use of the vaccines reduces risk of transmission and chances of hospitalisation and serious symptoms resulting from COVID-19 infection. As such, it should be expected that vaccines will continue to be in high demand across the globe.

The distribution of vaccines remains a profound challenge in the continued fight against COVID-19. How are they being transported? What are the transport requirements of specific vaccines? What are the relevant regulatory and contractual issues that may arise in the transport of vaccines? These are the questions that are of particular relevance to members of the shipping and transport industry, against the backdrop of still fraught supply chains, globally.

Currently, vaccines are mainly being transported by air. However, the volume of vaccines being distributed, which continues to increase, is expected to exceed existing air freight capacity. This means sea and land transportation will become increasingly relevant in the medium and long term as the COVID-19 situation as well as vaccine production stabilises.

The transport of vaccines is further complicated by the fact that most vaccines must be stored at very low temperatures, require deft handling, and have limited shelf-life. This not only requires transporters and handlers to be well-versed in



cold-chain logistics, it also calls for close cooperation and coordination between those involved at the different stages of the distribution journey.

In this article, we take a look at these issues, particularly from the perspective of the Southeast Asian region from which we have invited invaluable input from the Rajah & Tann Asia network member law practices. The article explores the following:

- (a) Transportation requirements for selected vaccines;
- (b) Practical issues in the various stages of the transport of vaccines;
- (c) International guidelines or standards governing the transport of vaccines; and
- (d) Contractual issues which may arise in the transportation process.

This publication is up to date as of April 2022.



TRANSPORT REQUIREMENTS OF VACCINES

Since the start of the pandemic, pharmaceutical companies have sought to develop vaccines that are effective against the threat of COVID-19. To date, there are a growing array of COVID-19 vaccines available, each with differing countries of origin and exacting storage/transportation requirements. Further, each country has approved the use of a different range of vaccines.

The table below analyses the transport features of some of the main vaccines currently in use in the Southeast Asian region.

Vaccine	Place of Manufacture	Storage/Transportation Requirements	Shelf Life
Pfizer- BioNTech	United States Europe	 Vaccine should be transported in ultracold freezer between -80°C and -60°C. The vaccine may be stored in the freezer between -25°C and -15°C for up to 2 weeks. If local redistribution is needed, the vaccine may be transported at -90°C to -60°C. Before mixing, the vaccine may be stored in the refrigerator between 2°C and 8°C for up to 30 days. Once thawed, the vaccine should not be refrozen. 	 Ultra-low temperature freezers: 6 months Refrigeration units: 30 days
Moderna	United States Europe	 Vaccine should be transported frozen between -50°C and -15°C. The vaccine may be stored in the refrigerator between 2°C and 8°C for up to 30 days. Once thawed, the vaccine should not be refrozen. 	 Standard freezers: 6 months Refrigeration units: 30 days
Janssen (Johnson & Johnson)	United States Europe India South Africa	 Vaccine should be transported at refrigerated temperatures between 2°C and 8°C. 	 Refrigeration units: 6 months
Oxford- Astrazeneca (Covishield)	United States Europe India Australia	 Vaccine should be transported at refrigerated temperatures between 2°C and 8°C. 	 Refrigeration units: 6 months



Sinopharm	China UAE	•	Vaccine should be transported at refrigerated temperatures between 2°C and 8°C.	•	Refrigeration months	units:	24
Sinovac	China Brazil Egypt	•	Vaccine should be transported at refrigerated temperatures between 2°C and 8°C.	•	Refrigeration months	units:	24



PRACTICAL ISSUES IN TRANSPORT OF VACCINES

The transport of vaccines from manufacturer to end user in the quantities urgently needed is no mean feat. It potentially involves multiple forms of transport, various points of handover, and interim storage, and is further complicated by the involvement of numerous separate participants in the transportation process. Combined with the particular transport conditions required, it is imperative for the supply chain partners to have visibility of the practical issues at the various stages of transport.

The journey of a vaccine may involve the partners and follow the path set out below:



Freight forwarders

As the main organiser of the transportation process, the freight forwarder must plan he route of the vaccine, coordinate with the various agents and adress the necessary ogistics



Airlines

The main form of transport for vaccines is still via aircraft Airlines are in charge of the transport conditions of the vaccines on board the flight



Ground handlers

• Once the vaccines reach the destination country, the ground handlers manage the movement of the vaccines from the plane/vessel to storage or further transport



Airports

irports must facilitate the the movement of air travel, whether at the point of eparture or arrival

Airports may also have to address the appropriate storage conditions where necessary



Customs

The entry and exit of vaccines from a country's borders requires the cooperation of customs and border control

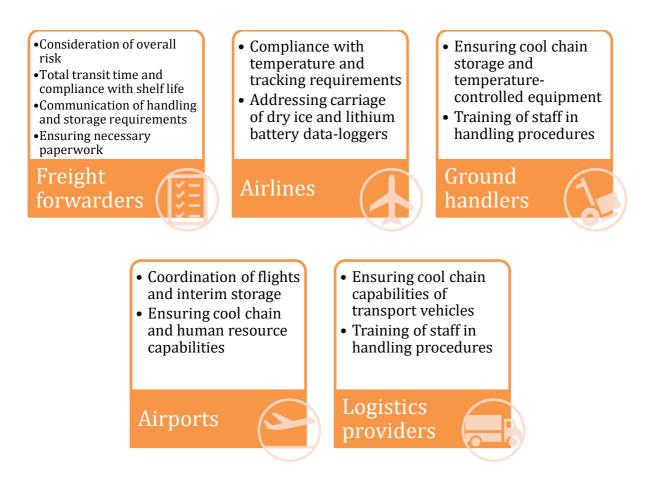


Logistics providers

Logistics providers are required to facilitate the last mile delivery of the vaccines to the relevant medical centres



Each supply chain partner has a critical role in the safe and effective transport of vaccines. At each stage, the participants must consider and address the transport conditions and timelines necessary to maintain the integrity of the vaccines. The issues to be considered may include the following:





OVERVIEW OF GUIDELINES AND STANDARDS

OVERVIEW

While the above sections have explored the practical issues in the transport of COVID-19 vaccines, supply chain partners should consider the regulatory issues that may arise as well, along with the corresponding legal consequences.

Whether the transportation process is governed by any legislation, regulation, or guidelines depends on the relevant jurisdictions where the vaccine is being transported from/to. While it is still not common for countries to have adopted bespoke legislation or regulation relating to the transport and storage of COVID-19 vaccines, certain jurisdictions have issued guidelines and standards that may be relevant.

In addition, international bodies have also published guidelines and recommended practices for the transport of COVID-19 vaccines. Supply chain partners should certainly take heed of these publications and assess the degree to which they are able to comply with the standards and processes contained therein.

NOTABLE INSTANCES OF COUNTRY-SPECIFIC GUIDELINES IN THE ASEAN REGION

-(Malaysia
	 Guidance on the Requirement to Import, Handle, Store and Distribute COVID-19 Vaccines in Malaysia - Published by the Ministry of Health to provide guidance for those involved in the supply chain for COVID-19 vaccines. All such parties are required to adopt proper distribution and store management procedures. Guideline on Good Distribution Practice - Published by the National Pharmaceutical Regulatory Division to lay down the appropriate principles for those in the supply chain for pharmaceitical products.
-(Singapore
	•Guidance Notes on Good Distribution Practice - Published by the Health Sciences Authority to provide guidance for those involved in the storage, transportation and distribution of pharmaceutucal products to ensure quality and integrity of the products.
_	Thailand
	 •Guideline on Storage and Transport of COVID-19 Vaccines - Published by the Ministry of Public Health to provide guidance on ensuring that the procedures are in accordance with international standards. •Guidance Material for Transportation of COVID-19 Vaccines - Published by the Civil Aviation Authority to assist and provide guidelines to entities that will particpate in the movement of COVID-19 vaccines.



Myanmar

•National Deployment for Vaccination Program (NVDP) - Developed by the Ministry of Health under the WHO Guidelines for developing a NVDP, for the transport and distribution of COVID-19 vaccines within the country.

Cambodia

•Good Distribution Practice and Good Storage Practice - Issued by the Department of Drugs and Food on the distribution and storage of pharmaceutical products.

Philippines

•Good Distribution Practice and Good Storage Practice - Issued by the Department of Health on the distribution and storage of pharmaceutical products.

EXAMPLES OF INTERNATIONAL GUIDELINES AND STANDARDS THAT SHOULD BE CONSULTED ARE:

ICAO Guidelines •The International Civil Aviation Organisation has released its guidelines on the safe transport of COVID-19 vaccines on commercial aircraft. •Identifies the specific areas related to the air transport of vaccines that may require action by the operator and regulator to facilitate safe transport. •All ASEAN countries are member states. **ITAA** Guidelines •The International Air Transport Association has released the Guidance for Vaccine and Pharmaceutical Logistics and Distribution. •Summarises all the considerations to be taken into account for large-scale handling, air transport and distribution of vaccines. **ASEAN Framework Agreement on Multimodal Transport** •Facilitates the movement of goods within ASEAN as well as between a Member Country and third countries by the five major means of transport. •In force in Singapore, Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, Thailand and Vietnam.



While the above guidelines address different segments of the transportation process and are pitched at varying standards, they do contain common themes in terms of the areas of concern and how these should be addressed. Supply chain partners should be guided by the relevant and applicable principles in the planning and conduct of their transport operations.

In the following section, we highlight some of the common principles detailed in these guidelines.



Planning and procedure

Policies and procedures setting out the responsibilities, processes and risk management principles should be clearly defined and maintained
A risk based approach should be adopted in planning import, export, procurement, storage, transportation and distribution



Packaging

Proper and safe packaging of the vaccine must be ensured
The identity of the vaccine should be clearly indicated on the packaging
The packaging should display the handling and storage instructions of the vaccine



Temperature control

The temperature of the vaccine must be monitored at all stages of transit and storage via real time temperature monitoring device Proper storage must be provided to ensure the necessary temperature conditions for each type of vaccine



Licences and approvals

• The necessary licences and approvals for the movement and distribution of the vaccine should be obtained, such as import/export licences and pharmaceutical licences

• Approval from supply chain partners should be obtained for the transport of dangerous goods and equipment (dry ice, data loggers)



Facilities and equipment

•Storage facilities and transport equipment must be duly qualified (e.g. capacity, refrigeration, security)

 Storage and transport equipment should have temperature alarms and backup power systems



Receiving and handling

Packaging and handling instructions should be communicated at all stages of transport

Identity and integrity of vaccines, as well as compliance with transportatior conditions, should be verified upon receipt

All personnel must be duly trained and briefed on the handling of vaccines

LAWYERS WHO KNOW ASIA

CONTRACTUAL ISSUES IN THE TRANSPORTATION OF VACCINES

Despite the existence of various guidelines and standards, and even with the most meticulous of planning (with the best of intentions), it is inevitable that there will be instances where consignments of vaccines are damaged along the distribution line. This may lead to civil claims between the supply chain partners. When this happens, the parties have to determine how the loss is to be allocated, and what damages need to be paid.

The result of any claim will depend largely on the circumstances of the damage and on the provisions of the contracts governing the relationships between the supply chain partners. It is thus important for parties to comprehensively formulate their agreements to accurately reflect the intended allocation of foreseeable risks and obligations.

The transport and distribution of COVID-19 vaccines features some unique requirements as described in the earlier sections. As such, the relevant contracts may also require bespoke provisions, as opposed to template terms and conditions. In this section, we set out some of the provisions that supply chain partners should consider addressing their contracts. We also take a look at the legal issues that may arise in the event of a claim relating to damage occurring along the distribution chain.

CONTRACTUAL PROVISIONS

	Conditions and warranties		
	 To ensure that counterparties are in compliance with transport and distribution standards, parties may wish to include them as conditions or warranties. Warranties may include: obtaining the necessary licences and approvals, providing the appropriate transport/storage conditions, observing the 		
	prescribed procedures, and compliance with applicable laws, regulations and guidelines.		
	•Conditions may include: timely delivery of the vaccines, delivery in suitable condition.		
	•Setting out the conditions and warranties provides a straightforward path for termination of contract or damages upon breach.		
	Insurance		
	•Parties should address their minds to their respective insurance obligations, including the coverage and quantum of such insurance.		
•The high value of each shipment means that insurance is particularly important in ensuring coverage of damages; insurers are often the parties footing the bill in such claims.			



Allocation and limits of liability

- •Parties may allocate liability for any damage between themselves according to any prescibed causes of such damage.
- •Parties may wish to include limitation clauses to limit the quantum of damages to an agreed sum.
- •Parties may also wish to limit liability to exclude certain losses, such as consequential losses, loss of profits, business interruption, etc. (due to the potential wide scale of such losses).
- •Given the conditions in which vaccines must be kept, delay, or damage due to delay, would be an area that should be provided for, e.g. a carrier would understandably wish to exclude liability for it, but the shipper or consignee would not.
- •Parties may negotiate whether liability for negligence should be excluded.
- •Parties should bear in mind the impact of the ASEAN Framework Agreement on Multimodal Transport (where applicable), which provides for a exclusion and limitation of liability regime.

Acceptance and defective products

- •The contract should set out the right of the recipient to reject defective products, have regard to product liability terms, and what constitutes a defective product.
- •This is particularly important as a defective vaccine or a vaccine improperly transported/stored would be rendered entirely unusable.

Governing law and jurisdiction

- •Such supply chain contracts are likely to involve parties from different jurisdictions and the movement of goods across different countries.
- •It is thus important to determine the applicable governing law and the forum having jurisdiction over any claim or dispute.
- If parties do not wish to submit the dispute to a local court, they should agree on an alternative dispute resolution mechanism that is acceptable to them, such as arbitration or a multi-tiered system.

Force majeure

- •The COVID-19 pandemic has in its own nature underscored that external events may greatly affect or even upend whether supply chain contracts can be performed. This includes disruptive forces such as border restrictions, flight restrictions and manpower disruption.
- Parties should agree on the force majeure events that will suspend or terminate their respective obligations under the contract.



OTHER ISSUES

While contractual provisions will go some distance in defining the obligations and liabilities of the parties in a supply chain contract, there may inevitably be other factors at play in determining the allocation of liability and legal risks. Other issues that are relevant in the circumstances would include the following:

Diplomatic relations – Rather than being a purely commercial engagement, the transport of vaccines may also attract geo-political considerations. With global demand continuing to exceed the available supply, the sharing and availability of vaccines has also taken on an element of diplomacy, in which the obstacles in the distribution journey are reflective of the impediments in country-to-country relations. Such obstacles may arise at the supply stage or at the import/export stage.

• Supply chain partners should be aware of the diplomatic climate of the intended route and account for such factors in their planning and drafting.

Price differentials – Much like any limited commodity, vaccines will follow the supply-demand model. As such, the price of vaccines may be driven up by nations that are more able to afford the financial load of buying vaccines in substantial bulk, leaving developing countries (which may ironically be in greater need of vaccines) with a shortage of supply.

• This would affect the consistency and viability of certain routes, which would then in turn take a toll on the business of operators along such routes, raising issues of payment capability and the fulfilment of other obligations.

Spikes and variants – The COVID-19 virus has been notoriously unpredictable. Countries have gone through multiple waves of spikes in infections, and this has been exacerbated by the emergence of new variants such as the Delta variant and the Omicron variant (and sub-variants).

• This has led to shifts in national vaccination programmes, which causes uncertainty in the supply chain. However, an increase in demand would also be countered by an increase in the practical obstacles of supply and transportation, such as border restrictions and manpower shortages.

National policy – The adoption of a vaccination policy by any nation is potentially a politically charged decision. While the politics of COVID-19 function at a level above the authority of supply chain partners, the effects of such policies will certainly be felt at all levels. Operators will have to be aware of any changes in policy and be able to adapt to any required changes in operation.



CONCLUDING WORDS



The global pandemic may have accentuated the barriers and distance dividing countries, but with nations pursuing vaccination programmes, supply chain partners are playing a key role in breaking down these barriers and crossing the divide.

The cross-border nature of vaccine transport and distribution means that supply chain partners must be aware of the specific legal and practical issues that exist at each point of the journey, and local legal regimes. It is not enough for one's regulatory knowledge to be confined to one's own jurisdiction.

In this regard, Rajah & Tann Asia has Regional Offices across the Asian region, capable or working together to provide a comprehensive and seamless legal advisory experience. Rajah & Tann Asia is well placed to advise on the applicable legislation, regulation and guidelines in the various jurisdictions in Asia, as well as the relevant on-the-ground issues that supply chain partners should be cognizant of.



About the Regional Shipping Group

Managing a complex portfolio of high-end shipping work throughout the region, in both "wet" and "dry" contentious matters, as well as in ship finance and other non-contentious matters, our shipping practice is quite simply the dominant force in Asia within this highly specialised area.

With varied areas of expertise and a wealth of experience, coupled with keen commercial acumen, our shipping partners are endorsed by *Chambers Global* and *The Legal 500 Asia Pacific* as leading practitioners and experts in the shipping arena. Collectively and individually, we have won testimonials as Asian counsel of first resort in shipping and trade-related work.

Our regional shipping team in Asia comprises over 40 lawyers with diverse backgrounds from in-house and seagoing experience to certified marine engineers, and a resident master mariner based in Singapore, all of which gives us an edge. With multi-cultured lawyers qualified in their respective home jurisdictions (China, Indonesia, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam) – some of whom are dual-qualified and also admitted to the English roll – we can certainly reach and assist you *wherever*, and *whenever* you need us.

Find out more about our Regional Shipping Group here.

If you would like to find out how we may assist you, do touch base with us at <u>shippinglaw@rajahtann.com</u> or our team members below.



KEY CONTACTS

Cambodia



Heng Chhay R&T Sok & Heng Law Office Managing Partner Partner, Business Law

T +855 23 963 112/113 heng.chhay@rajahtann.com

Malaysia



Clive Selvapandian Christopher & Lee Ong Partner, Shipping & International Trade

T +60 3 2273 1919 clive.selvapandian@christopherleeong.com

Myanmar



Chester Toh Rajah & Tann Myanmar Company Limited Director, Corporate Commercial

T + 65 6232 0220 chester.toh@rajahtann.com



Alroy Chan Rajah & Tann Myanmar Company Limited Partner, Corporate Commercial

T +65 6232 0481 alroy.chan@rajahtann.com



Lester Chua Rajah & Tann Myanmar Company Limited Director, Corporate Commercial

T +959 979 524 285 lester.chua@rajahtann.com

Philippines



Vladi Miguel S. Lazaro Gatmaytan Yap Patacsil Gutierrez & Protacio (C&G Law) Partner, Dispute Resolution

T +632 8940377 vmslazaro@cagatlaw.com

© Rajah & Tann Asia

RAJAH & TANN ASIA



Singapore



Kendall Tan Rajah & Tann Singapore LLP Head, Shipping & International Trade

T +65 6232 0634 kendall.tan@rajahtann.com



Ting Yong Hong Rajah & Tann Singapore LLP Partner, Shipping & International Trade

T +65 6232 0655 yong.hong.ting@rajahtann.com



Dedi Affandi Bin Ahmad Rajah & Tann Singapore LLP Partner, Shipping & International Trade

T +65 6232 0706 dedi.affandi.ahmad@rajahtann.com

Thailand



Saroj Jongsaritwang R&T Asia (Thailand) Limited Partner, General Corporate Commercial

T +66 2656 1991 saroj.jongsaritwang@rajahtann.com



Krida Phoonwathu R&T Asia (Thailand) Limited Partner, Commercial Litigation

T +66 2656 1991 krida.phoonwathu@rajahtann.com

19

LAWYERS WHO KNOW ASIA

OUR REGIONAL CONTACTS

RAJAH & TANN | Singapore

Rajah & Tann Singapore LLP T +65 6535 3600 F +65 6225 9630 sg.rajahtannasia.com

R&T SOK & HENG | Cambodia

R&T Sok & Heng Law Office T +855 23 963 112 / 113 F +855 23 963 116 kh.rajahtannasia.com

RAJAH & TANN 立杰上海 SHANGHAI REPRESENTATIVE OFFICE | *China*

Rajah & Tann Singapore LLP Shanghai Representative Office T +86 21 6120 8818 F +86 21 6120 8820 cn.rajahtannasia.com

ASSEGAF HAMZAH & PARTNERS | Indonesia

Assegaf Hamzah & Partners

Jakarta Office T +62 21 2555 7800 F +62 21 2555 7899

Surabaya Office T +62 31 5116 4550 F +62 31 5116 4560 www.ahp.id

RAJAH & TANN | Lao PDR

Rajah & Tann (Laos) Co., Ltd. T +856 21 454 239 F +856 21 285 261 Ia.rajahtannasia.com CHRISTOPHER & LEE ONG | Malaysia

Christopher & Lee Ong

T +60 3 2273 1919 F +60 3 2273 8310 www.christopherleeong.com

RAJAH&TANN | Myanmar

Rajah & Tann Myanmar Company Limited T +951 9345 343 / +951 9345 346 F +951 9345 348 mm.rajahtannasia.com

GATMAYTAN YAP PATACSIL GUTIERREZ & PROTACIO (C&G LAW) | *Philippines*

Gatmaytan Yap Patacsil Gutierrez & Protacio (C&G Law) T +632 8894 0377 to 79/ +632 8894 4931 to 32 / +632 8552-1977 to 78 F +632 552 1978 www.cagatlaw.com

RAJAH & TANN | Thailand

R&T Asia (Thailand) Limited T +66 2 656 1991 F +66 2 656 0833 th.rajahtannasia.com

RAJAH & TANN LCT LAWYERS | Vietnam

Rajah & Tann LCT Lawyers

Ho Chi Minh City Office

T +84 28 3821 2382 F +84 28 3520 8206

Hanoi Office

T +84 24 3267 6127 F +84 24 3267 6128 www.rajahtannlct.com

Rajah & Tann Asia is a network of legal practices based in Asia.

Member firms are independently constituted and regulated in accordance with relevant local legal requirements. Services provided by a member firm are governed by the terms of engagement between the member firm and the client.

This guide is solely intended to provide general information and does not provide any advice or create any relationship, whether legally binding or otherwise. Rajah & Tann Asia and its member firms do not accept, and fully disclaim, responsibility for any loss or damage which may result from accessing or relying on this guide.

DISCLAIMER

Rajah & Tann Asia is a network of member firms with local legal practices in Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. Our Asian network also includes our regional office in China as well as regional desks focused on Brunei, Japan and South Asia. Member firms are independently constituted and regulated in accordance with relevant local requirements.

The contents of this publication are owned by Rajah & Tann Asia together with each of its member firms and are subject to all relevant protection (including but not limited to copyright protection) under the laws of each of the countries where the member firm operates and, through international treaties, other countries. No part of this publication may be reproduced, licensed, sold, published, transmitted, modified, adapted, publicly displayed, broadcast (including storage in any medium by electronic means whether or not transiently for any purpose save as permitted herein) without the prior written permission of Rajah & Tann Asia or its respective member firms.

Please note also that whilst the information in this publication is correct to the best of our knowledge and belief at the time of writing, it is only intended to provide a general guide to the subject matter and should not be treated as legal advice or a substitute for specific professional advice for any particular course of action as such information may not suit your specific business and operational requirements. You should seek legal advice for your specific situation. In addition, the information in this publication does not create any relationship, whether legally binding or otherwise. Rajah & Tann Asia and its member firms do not accept, and fully disclaim, responsibility for any loss or damage which may result from accessing or relying on the information in this publication.