

Packing Tips for Air Passenger

Provisions for Dangerous Goods Carried by Passenger and Crew

The following information is based on the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* issued by the International Civil Aviation Organization (ICAO). It covers some common items that are prohibited to be carried by air passengers and crew, and certain types of dangerous goods items that they may carry aboard an aircraft and their related requirements.

Please note that the dangerous goods items permitted to be carried aboard an aircraft shall be for personal use only, otherwise the passengers are forbidden to carry such items either as or in carry-on baggage, checked baggage or on their person.

Please also note that the carriage of certain items by passengers may require airline's consent. Individual airlines may also have additional requirements on items that passengers may carry aboard an aircraft. If you have any questions, please contact your airline for further information and confirmation before travel.

Guidelines on the carriage of alcohol-based liquid sanitizers, alcohol wipes, and hygienic antiseptics, etc. can be found in [Section \(7\)](#) of this document.

(1) Batteries – Portable Electronic Devices Containing Batteries

Watt-hour rating (Wh) = Rated capacity expressed in milliampere-hours (mAh) / 1000 x Nominal voltage (V)

Item	Carry-on baggage	Checked baggage	Airline's consent required
1.1) Portable electronic devices containing lithium metal or lithium ion cells or batteries (such as watches, calculating machines, cameras, cellular phones, laptop/tablet computers, camcorders, baggage tracking devices, etc) - Each battery must not exceed the following: <ul style="list-style-type: none"> • for lithium metal batteries, a lithium content of 2 g; or • for lithium ion batteries, a Watt-hour rating of 100 Wh - If devices are carried in checked baggage: <ul style="list-style-type: none"> • measures must be taken to prevent unintentional activation, to protect the devices from damage, and • the devices must be completely switched off (not in sleep or hibernation mode) if the batteries exceed: <ul style="list-style-type: none"> • for lithium metal batteries, a lithium content of 0.3 g; or • for lithium ion batteries, a Watt-hour rating of 2.7 Wh 	✓	✓	✗
1.2) Portable electronic devices containing lithium ion batteries exceeding a Watt-hour rating of 100 Wh but not exceeding 160 Wh - If devices are carried in checked baggage, measures must be taken to prevent unintentional activation, to protect the devices from damage, and the devices must be completely switched off (not in sleep or hibernation mode)	✓	✓	✓
Portable electronic devices containing lithium ion batteries exceeding a Watt-hour rating of 160 Wh are forbidden	✗	✗	N/A

Item	Carry-on baggage	Checked baggage	Airline's consent required
<p>1.3) Portable electronic devices containing lithium metal or lithium ion cells or batteries capable of generating heat (such as heat generating jacket)</p> <ul style="list-style-type: none"> - Batteries and heating elements must be isolated in portable electronic devices by removal of the heating element, battery or other components. - Please see the "Spare Batteries" section below for carriage of spare batteries removed from the portable electronic devices. <p>Portable electronic devices containing lithium ion batteries exceeding a Watt-hour rating of 160 Wh are forbidden</p>	✓	✓	<p>✗ (if ≤ Watt-hour rating of 100 Wh)</p> <p>✓ (if > Watt-hour rating of 100 Wh but ≤160 Wh)</p> <p>N/A</p>
<p>1.4) Portable medical electronic devices containing lithium metal cells or batteries not exceeding 2 g, or lithium ion cells or batteries not exceeding 100 Wh, (e.g. Automated External Defibrillators (AED), Nebulizer, Continuous Positive Airway Pressure (CPAP), etc)</p> <ul style="list-style-type: none"> - Carried by passengers for medical use - Please see the "Spare Batteries" section below for carriage of spare batteries for portable medical electronic devices. 	✓	✓	✗
<p>1.5) Portable medical electronic devices containing lithium metal batteries exceeding 2 g but not exceeding 8 g, or lithium ion batteries exceeding 100 Wh but not exceeding 160 Wh</p> <ul style="list-style-type: none"> - Carried by passenger for medical use - Please see the "Spare Batteries" section below for carriage of spare batteries for portable medical electronic devices. 	✓	✓	✓
<p>1.6) Battery-powered portable electronic smoking devices (e.g. e- cigarettes, e-cigs, e-cigars, e-pipes, personal vaporizers, electronic nicotine delivery systems)</p> <ul style="list-style-type: none"> - if powered by lithium batteries, each battery must comply with relevant restriction: <ul style="list-style-type: none"> • for lithium metal batteries, a lithium content must not exceed 2 g; or • for lithium ion batteries, a Watt-hour rating must not exceed 100 Wh; - Recharging of the devices and/or batteries on board the aircraft is forbidden - Measures must be taken to prevent unintentional activation of the heating element while on board the aircraft 	✓ [#]	✗	✗

[#] The Smoking (Public Health) (Amendment) Ordinance 2021, which imposes a ban on "Alternative Smoking Products", has come into operation on 30 April 2022. According to the Ordinance, passengers (other than transit passengers at Hong Kong International Airport) are prohibited from carrying electronic smoking products into Hong Kong, regardless of the quantity or whether they are for personal use. Please refer to the website of Tobacco and Alcohol Control Office of Department of Health for details:

https://www.taco.gov.hk/t/english/legislation/legislation_asp.html

Item	Carry-on baggage	Checked baggage	Airline's consent required
<p>1.7) Equipment powered by non-spillable wet, nickel-metal hydride, or dry batteries</p> <ul style="list-style-type: none"> - Batteries and heating elements must be isolated in battery-powered equipment capable of generating extreme heat, by removal of the heating element, battery or other components. - The equipment must be either protected from unintentional activation, or each battery must be disconnected and its exposed terminals insulated. 	✓	✓	✗
<p>1.8) Smart luggage</p> <ul style="list-style-type: none"> - Baggage equipped with lithium batteries (whether removable or non-removable) not exceeding the following: <ul style="list-style-type: none"> • for lithium metal batteries, a lithium content of 0.3 g; or • for lithium ion batteries, a Watt-hour rating of 2.7 Wh. - Baggage equipped with non-removable lithium batteries exceeding the above restrictions. - Baggage equipped with lithium batteries exceeding the above restrictions, and the batteries are removed. The removed batteries must be carried in carry-on baggage (see also the section for "Spare Batteries"). <p>Note :</p> <ul style="list-style-type: none"> - Individual airlines may introduce additional requirements on smart luggage. Passengers are advised to contact their airline concerned before departure should they have any query about the requirements and restrictions applicable to the carriage of smart luggage. 	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓ (baggage)</p> <p style="text-align: center;">✓ (battery)</p>	<p style="text-align: center;">✓</p> <p style="text-align: center;">✗</p> <p style="text-align: center;">✓ (baggage)</p> <p style="text-align: center;">✗ (battery)</p>	See Note

(2) Batteries – Spare Batteries

Watt-hour rating (Wh) = Rated capacity expressed in milliampere-hours (mAh) / 1000 x Nominal voltage (V)

Item	Carry-on baggage	Checked baggage	Airline's consent required
<p>2.1) Spare lithium metal or lithium ion cells and batteries for portable electronic devices</p> <p>Articles which have the primary purpose as a power source, e.g. power banks, are considered as spare batteries</p> <ul style="list-style-type: none"> - Each battery must not exceed the following : <ul style="list-style-type: none"> • for lithium metal batteries, a lithium content of 2 g; or • for lithium ion batteries, a Watt-hour rating of 100 Wh - Must be individually protected so as to prevent short circuits (by placement in original retail packaging or by otherwise insulating terminals, e.g. by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch) <p>Note</p> <ul style="list-style-type: none"> - Please consult your airlines whether they have any additional restrictions on the quantity of this type of spare lithium batteries to be carried by passengers. 	✓	✗	✗ See Note
<p>2.2) Spare lithium ion batteries exceeding a Watt-hour rating of 100 Wh but not exceeding 160 Wh for portable electronic devices</p> <ul style="list-style-type: none"> - No more than two individually protected spare batteries per person - Must be individually protected so as to prevent short circuits (by placement in original retail packaging or by otherwise insulating terminals, e.g. by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch) <p>Spare lithium ion batteries exceeding a Wh rating of 160 Wh are forbidden</p>	✓	✗	✓
<p>2.3) Spare non-spillable wet, nickel-metal hydride, and dry batteries</p> <ul style="list-style-type: none"> - In case of a non-spillable wet battery: <ul style="list-style-type: none"> • Each battery must not exceed a voltage of 12 V and a Watt-hour rating of 100 Wh • Each battery must be protected from short circuit by the effective insulation of exposed terminals • The battery must not contain any free or unabsorbed liquid. • A maximum of two spare batteries may be carried per passenger - In case of a dry battery or nickel-metal hydride battery: <ul style="list-style-type: none"> • Each battery must be protected from short circuit by the effective insulation of exposed terminals 	✓	✓	✗

(3) Batteries – Battery-powered Mobility Aids (E.g. Wheelchairs)

Watt-hour rating (Wh) = Rated capacity expressed in milliampere-hours (mAh) / 1000 x Nominal voltage (V)

Item	Carry-on baggage	Checked baggage	Airline's consent required
<p>3.1) Battery-powered mobility aids (e.g. wheelchairs) (The following ICAO requirements have been adopted by airlines)</p> <ul style="list-style-type: none"> - For use by passengers whose mobility is restricted by either a disability, their health or age, or a temporary mobility problem (e.g. broken leg) - Passenger should make advance arrangements with each operator and provide information on the type of battery installed and on the handling of the mobility aid (including instructions on how to isolate the battery) - In case of a spillable battery, nickel-metal hydride battery or dry battery: <ul style="list-style-type: none"> • Measures must be taken to prevent short circuit (e.g. by the effective insulation of exposed terminals) and unintentional activation - In case of a non-spillable wet battery: <ul style="list-style-type: none"> • A maximum of one spare battery may be carried per passenger • Measures must be taken to prevent short circuit (e.g. by the effective insulation of exposed terminals) and unintentional activation • The battery must not contain any free or unabsorbed liquid - In case of a lithium ion battery: <ul style="list-style-type: none"> • Each battery must be of a type which meets the requirements of each test in the <i>UN Manual of Tests and Criteria</i>, Part III, subsection 38.3 • When the mobility aid does not provide adequate protection to the battery: <ol style="list-style-type: none"> a. the battery must be removed in accordance with the manufacturer's instructions b. the removed battery must not exceed 300 Wh • A maximum of <u>one</u> spare battery not exceeding 300 Wh or <u>two</u> spare batteries not exceeding 160 Wh each may be carried • The battery terminals of the removed and spare batteries must be protected from short circuit (by insulating the terminals, e.g. by taping over exposed terminals) • The removed and spare batteries must be protected from damage (e.g. by placing each battery in a protective pouch) • The removed and spare batteries must be carried in the cabin 	<p>Please contact your airline for detailed arrangements</p>		<p>✓</p>

(4) Flames and Fuel Sources

Item	Carry-on baggage	Checked baggage	Airline's consent required
4.1) Cigarette Lighter (each passenger is permitted to carry only one lighter, no matter it is powered by lithium batteries or liquefied gas) - Small cigarette lighter <ul style="list-style-type: none"> Shall not contain unabsorbed liquid fuel (other than liquefied gas) 	✗ (only one carried on the person is allowed)	✗	✗
Lighter fuel and lighter refills are forbidden	✗	✗	N/A
- Battery-powered lighters (powered by lithium metal or lithium ion battery) <ul style="list-style-type: none"> Recharging of the device and/or battery on board the aircraft is not permitted Measures must be taken to prevent unintentional activation of the heating element while on board the aircraft 	✗ (only one carried on the person is allowed)	✗	✗
Battery-powered lighters without a means of protection against unintentional activation are forbidden	✗	✗	N/A
4.2) Matches - Small packet of safety matches <ul style="list-style-type: none"> Only one is allowed per person 	✗ (only one carried on the person is allowed)	✗	✗
'Strike anywhere' matches are forbidden	✗	✗	N/A
4.3) Alcoholic beverages* containing more than 24% but not more than 70% alcohol by volume - Must be in retail packaging; and - No more than 5 litres (L) total net quantity per person* Note: Alcoholic beverages containing not more than 24% alcohol by volume are not subject to the above restrictions*	✓*	✓	✗

* If these items are to be carried in carry-on baggage or on one's person, the quantity allowable to be carried is based on the container volume of these items. Please note and observe the "[Restrictions on carriage of Liquids, Gels, Aerosols \(LAGs\) in cabin baggage](#)", and click [here](#) to see the frequently asked questions about these restrictions.

(5) Gas Cartridges / Cylinders

Item	Carry-on baggage	Checked baggage	Airline's consent required
5.1) Cylinders of oxygen or air required for medical use <ul style="list-style-type: none"> No more than 5 kg gross mass per cylinder Cylinders, valves and regulators (where fitted) must be protected from damage which could cause inadvertent release of the contents Advance arrangements recommended The pilot-in-command must be informed of the number of oxygen or air cylinders loaded on board the aircraft and their loading location(s) 	✓	✓	✓

Item	Carry-on baggage	Checked baggage	Airline's consent required
5.2) Cartridge of hydrocarbon gas contained in hair styling equipment	✓	✓	✗
- No more than one per person - Safety cover must be securely fitted over the heating element	✗	✗	N/A
Gas refills for such curlers are forbidden			
5.3) Cartridges of non-flammable and non-toxic gas fitted into a self-inflating personal safety device, such as a life-jacket or vest	✓	✓	✓
- No more than two personal safety devices per person - No more than 2 cartridges installed in each device, and no more than 2 spare cartridges per device - Ensure that the devices cannot be accidentally activated - Must be for inflation purposes			
5.4) Small Non-flammable and non-toxic gas cartridges	✓	✓	✓
- No more than four small cartridges per person - Each cartridge must not exceed 50 ml			

(6) Mercury

Item	Carry-on baggage	Checked baggage	Airline's consent required
6.1) Medical or clinical thermometer which contains mercury	✗	✓	✗
- Only one is allowed per person - Must be in a protective case			

(7) Other Dangerous Goods

Item	Carry-on baggage	Checked baggage	Airline's consent required
7.1) Non-radioactive medicinal articles (including aerosols), toiletry articles (including aerosols) such as hair sprays, dry shampoo, perfumes, colognes, alcohol-based liquid sanitizers and hygienic antiseptics, and other non-flammable and non-toxic aerosols	✓*	✓	✗
- No more than 0.5 kilogrammes (kg) or 0.5 L total net quantity per single article* - No more than 2 kg or 2 L total net quantity of all articles per person* (e.g. four aerosol cans of 500 millilitres (ml) each) - Release valves on aerosols must be protected by a cap or other suitable means to prevent inadvertent release of the contents* - Release of gas must not cause extreme annoyance or discomfort to crew members so as to prevent the correct performance of assigned duties - Sealed packets and articles containing less than 10 ml of alcohol liquid absorbed into a solid material (such as alcohol wipes) and without free liquid in the packets or articles, can be carried in carry-on or checked baggage without restrictions			
Flammable or toxic aerosols not for medicinal or toiletry purposes are forbidden (e.g. household items not applied to the body such as insecticide, etc.)	✗	✗	N/A

Item	Carry-on baggage	Checked baggage	Airline's consent required
7.2) Dry ice (carbon dioxide, solid) - No more than 2.5 kg per person - Used to pack perishables that are not dangerous goods - The package must permit the release of carbon dioxide gas - When carried in checked baggage, each package must be marked: <ul style="list-style-type: none"> • as "DRY ICE" or "CARBON DIOXIDE, SOLID"; and • with the net weight of dry ice or an indication that the net weight is 2.5 kg or less 	✓	✓	✓
7.3) Artist paints, oil-based paints, water-based paints, acrylic and non-flammable paints * - Manufacturers may indicate on the packaging whether the products are flammable, toxic, corrosive or hazardous, consult the manufacturers if in doubt Flammable paint, gloss paint, aerosol paint, spray paint are forbidden Paint thinners or turpentine substitute are forbidden	✓ *	✓	✗
	✗	✗	N/A
	✗	✗	N/A

* If these items are to be carried in carry-on baggage or on one's person, the quantity allowable to be carried is based on the container volume of these items. Please note and observe the "[Restrictions on carriage of Liquids, Gels, Aerosols \(LAGs\) in cabin baggage](#)", and click [here](#) to see the frequently asked questions about these restrictions.

Forbidden Items to be Carried on Board Aircraft

Item	Carry-on baggage	Checked baggage
Fireworks	X	X
Flares	X	X
Flammable gas e.g. butane, propane, liquefied petroleum gas	X	X
Compressed gas cylinders	X	X
Ribbon spray	X	X
Fuels including cooking fuels and any flammable liquid fuel	X	X
Gasoline	X	X
Lighter fuel and lighter refills	X	X
Flammable paint, gloss paint, aerosol paint, spray paint	X	X
Flammable or toxic aerosols not for medicinal or toiletry purposes	X	X
Flammable adhesives	X	X
Paint Thinner	X	X
Flammable solid e.g. barbeque charcoal fire starters	X	X
Oxidizer e.g. bleach	X	X
Toxic and infectious substances e.g. mice killer, biological substances, biological products	X	X
Radioactive substances	X	X
Corrosive substances e.g. drain cleaner	X	X
Electro shock weapons	X	X

Taking into account the requirements of individual countries (including the destination and transit countries), airlines may impose additional restrictions on items that passengers may carry onboard aircraft. If you are not sure if an item can be taken onboard aircraft, please contact your airline before departure.