


<p><b>Irish Aviation Authority</b> The Times Building 11–12 D'Olier Street Dublin 2, Ireland <a href="http://www.iaa.ie">www.iaa.ie</a></p>	<p><b>Údarás Eitlíochta na hÉireann</b> Foirgneamh na hAmanna 11–12 Sráid D'Olier Baile Átha Cliath 2, Éire</p>	<p>DG Info. 002 Revision: 01 Date: 05/03/2026</p>	
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**TITLE: Travelling by Air, with Personal Electronic Devices (PED) containing Lithium (and in the future Sodium) batteries**

## 1. Introduction

The purpose of this document is to promulgate information to the general public about the current regulations when travelling by air with devices containing Lithium Batteries.

## 2. Why are regulations required ?

Regulations are required to mitigate against the potential risks lithium batteries present, namely, thermal runaway. Thermal Runaway is a phenomenon in which the lithium battery enters an uncontrollable, self-heating state.

## 3. What problems might arise from Thermal Runaway ?

Thermal runaway can result in:

- Ejection of gas, shrapnel and/or particulates (violent cell venting)
- Extremely high temperatures
- Smoke
- Fire

The average passenger, now brings 4 Personal Electronic Devices (PED) onto an aircraft, each containing a Lithium battery, such as: smartphone / laptop / vape or e-cigarettes / rechargeable headphones / power bank / tablets etc.

The most reported thermal runaway incidents involve **e-cigarettes** and **power banks** – which are also the most likely to be placed in checked baggage – despite being **forbidden in checked luggage**.

## 4. Warning signs to watch for include:

- a. Your device emitting smoke or fumes
- b. Your device heating up
- c. Your device swelling
- d. Your device behaving outside normal parameters

**If you notice anything unusual with your device, immediately let a member of Airline / Operator staff know.**

## 5. Airline / Operator procedures

Every Airline / Operator has procedures in place to deal with any incidents of thermal runaway. You should always contact a member of Airline / Operator staff if you notice any of the warning signs with any of your devices: prior to departure or during your flight. The Airline / Operator staff are trained in how to contain the situation.


## 6. Mobility Aids powered by Lithium

Mobility aids powered by lithium require the Airline / operator's approval prior to transport by air. Some mobility aids are forbidden to be transported in the aircraft hold. Your airline may request specific information on your specific Mobility Aid(s) prior to obtaining airline / operator approval. You should check ahead of travel with your Airline / operator regarding their specific procedures for obtaining the required approval.

## 7. What can I bring onboard and in checked-in baggage ?

Every Airline / operator must adhere to ICAO Annex 18 – The Safe Transport of Dangerous Goods by Air regulations. An individual Airline / operator may have more restrictive limitations in place, so always check with your individual Airline. Some States may additionally mandate more restrictive limitations. Ireland currently have not mandated any State Variations.

The minimum regulations are as follows:

		<b>Dangerous Goods Regulations</b>			
<b>TABLE 2.3.A</b> <b>Provisions for Dangerous Goods Carried by Passengers or Crew</b> <b>(Subsection 2.3)</b>					
<b>2</b>	<i>Dangerous goods must not be carried in or as passengers or crew, checked or carry-on baggage, except as otherwise provided below. Dangerous goods permitted in carry-on baggage are also permitted "on one's person", except where otherwise specified.</i>				
	23	<b>The pilot-in-command must be informed of the location</b>			
		<b>Permitted in or as carry-on baggage</b>			
		<b>Permitted in or as checked baggage</b>			
		<b>The approval of the operator is required</b>			
Alcoholic beverages, when in retail packagings, containing more than 24% but not more than 70% alcohol by volume, in receptacles not exceeding 5 L, with a total net quantity per person of 5 L.	NO	YES	YES	NO	
<b>Note:</b> <i>Alcoholic beverages containing 24% or less alcohol by volume are not subject to any restrictions.</i>					
<b>Ammunition, securely packaged</b> (in Div. 1.4S, UN 0012 or UN 0014 only), in quantities not exceeding 5 kg gross weight per person for that person's own use. Allowances for more than one person must not be combined into one or more packages.	YES	YES	NO	NO	
<b>Avalanche rescue backpack</b> , one (1) per person, containing cartridges of compressed gas in Div. 2.2. May also be equipped with a pyrotechnic trigger mechanism containing no more than 200 mg net of Div. 1.4S. The backpack must be packed in such a manner that it cannot be accidentally activated. The airbags within the backpacks must be fitted with pressure relief valves.	YES	YES	YES	NO	
<b>Baggage with installed lithium batteries</b> non-removable batteries exceeding –0.3 g lithium metal or 2.7 Wh.	FORBIDDEN				
<b>Baggage with installed lithium batteries:</b>					
– non-removable batteries. Batteries must contain no more than 0.3 g lithium metal or for lithium ion must not exceed 2.7 Wh;	NO	YES	YES	NO	
– removable batteries. Batteries must be removed if baggage is to be checked in. Removed batteries must be carried in the cabin.					
<b>Batteries, spare/loose</b> , including lithium batteries, non-spillable batteries, nickel-metal hydride batteries and dry batteries (see 2.3.5.8) for portable electronic devices must be carried in carry-on baggage only. Articles which have the primary purpose as a power source, e.g. power banks are considered as spare batteries. These batteries must be individually protected to prevent short circuits. Lithium metal batteries: the lithium metal content must not exceed 2 g (see 2.3.5.8.4). Lithium ion batteries: the Watt-hour rating must not exceed 100 Wh (see 2.3.5.8.4). Each person is limited to a maximum of 20 spare batteries. *The operator may approve the carriage of more than 20 batteries. Non-spillable batteries: must be 12 V or less and 100 Wh or less. Each person is limited to a maximum of 2 spare batteries (see 2.3.5.8.5).	NO*	NO	YES	NO	
<b>Camping stoves and fuel containers that have contained a flammable liquid fuel</b> , with empty fuel tank and/or fuel container (see 2.3.2.5 for details).	YES	YES	NO	NO	
<b>Chemical Agent Monitoring Equipment</b> , when carried by staff members of the Organization for the Prohibition of Chemical Weapons on official travel (see 2.3.4.4).	YES	YES	YES	NO	
<b>Disabling devices</b> such as mace, pepper spray, etc. containing an irritant or incapacitating substance are forbidden on the person, in checked and carry-on baggage.	FORBIDDEN				
<b>Dry ice (carbon dioxide, solid)</b> , in quantities not exceeding 2.5 kg per person when used to pack perishables not subject to these Regulations in checked or carry-on baggage, provided the baggage (package) permits the release of carbon dioxide gas. Checked baggage must be marked "dry ice" or "carbon dioxide, solid" and with the net weight of dry ice or an indication that there is 2.5 kg or less dry ice.	YES	YES	YES	NO	
<b>e-cigarettes</b> (including e-cigs, e-pipes, other personal vaporizers) containing batteries must be individually protected to prevent accidental activation (see 2.3.5.8.2).	NO	NO	YES	NO	
<b>Electro shock weapons</b> (e.g. Tasers) containing dangerous goods such as explosives, compressed gases, lithium batteries, etc. are forbidden in carry-on baggage or checked baggage or on the person.	FORBIDDEN				
<b>Fuel cells</b> containing fuel, powering portable electronic devices (e.g. cameras, cellular phones, laptop computers and camcorders), see 2.3.5.9 for details.	NO	NO	YES	NO	
<b>Fuel cell cartridges, spare</b> for portable electronic devices, see 2.3.5.9 for details.	NO	YES	YES	NO	
<b>Gas cartridges, small, non-flammable</b> containing carbon dioxide or other suitable gas in Division 2.2. Up to two (2) small cartridges fitted into a <b>self-inflating personal safety device</b> , intended to be worn by a person, such as a life jacket or vest. Not more than two (2) devices per passenger and up to two (2) spare small cartridges per device, for other devices not more than four (4) cartridges up to 50 mL water capacity. (see 2.3.4.2).	YES	YES	YES	NO	
<b>Gas cylinders, non-flammable, non-toxic</b> worn for the operation of mechanical limbs. Also, spare cylinders of a similar size if required to ensure an adequate supply for the duration of the journey.	NO	YES	YES	NO	
<b>Hair styling equipment containing a hydrocarbon gas cartridge</b> , up to one (1) per passenger or crew-member, provided that the safety cover is securely fitted over the heating element. This hair styling equipment must not be used on board the aircraft. Spare gas cartridges for such hair styling equipment are not permitted in checked or carry-on baggage.	NO	YES	YES	NO	



**Limitations**


**TABLE 2.3.A**  
**Provisions for Dangerous Goods Carried by Passengers or Crew**  
**(Subsection 2.3) (continued)**

The pilot-in-command must be informed of the location				
Permitted in or as carry-on baggage				
Permitted in or as checked baggage				
The approval of the operator is required				
Insulated packagings containing refrigerated liquid nitrogen (dry shipper), fully absorbed in a porous material containing only non-dangerous goods.	NO	YES	YES	NO
Internal combustion or fuel cell engines, must meet A70 (see 2.3.5.12 for details).	NO	YES	NO	NO
△ Lithium Batteries: Portable electronic devices (PED) containing lithium metal or lithium ion cells or batteries, including medical devices such as portable oxygen concentrators (POC) and consumer electronics such as cameras, mobile phones, laptops and tablets (see 2.3.5.8). For lithium metal batteries the lithium metal content must not exceed 2 g and for lithium ion batteries the Watt-hour rating must not exceed 100 Wh. Devices must be protected from damage and inadvertent activation. Those in checked baggage must be completely switched off. Each person is limited to a maximum of 15 PED. *The operator may approve the carriage of more than 15 PED.	NO*	YES	YES	NO
△ Lithium batteries, spare/loose, including power banks, see Batteries, spare/loose				
Lithium battery-powered electronic devices. Lithium ion batteries for portable (including medical) electronic devices, a Wh rating exceeding 100 Wh but not exceeding 160 Wh. For portable medical electronic devices only, lithium metal batteries with a lithium metal content exceeding 2 g but not exceeding 8 g. Devices must be protected from damage. Devices in checked baggage must be completely switched off.	YES	YES	YES	NO
Lithium batteries, spare/loose with a Watt-hour rating exceeding 100 Wh but not exceeding 160 Wh for consumer electronic devices and PMED or with a lithium metal content exceeding 2 g but not exceeding 8 g for PMED only. Maximum of two spare batteries in carry-on baggage only. These batteries must be individually protected to prevent short circuits.	YES	NO	YES	NO
Matches, safety (one small packet) or a small cigarette lighter that does not contain unabsorbed liquid fuel, other than liquefied gas, intended for use by an individual when carried on the person. Lighter fuel and lighter refills are not permitted on one's person or in checked or carry-on baggage.	NO	ON ONE'S PERSON		NO
Note: "Strike anywhere" matches, "Blue flame" or "Cigar" lighters or lighters powered by a lithium battery without a safety cap or means of protection against unintentional activation are forbidden (see 2.3.5.8.4(e)).				
Mobility Aids: Battery-powered wheelchairs or other similar mobility devices with non-spillable wet batteries, nickel-metal hydride batteries or dry batteries, (see 2.3.2.2).	YES	YES	NO	YES
Mobility Aids: Battery-powered wheelchairs or other similar mobility devices with spillable batteries or with lithium ion batteries (see 2.3.2.3 and 2.3.2.4 for details).	YES	YES	NO	YES
Mobility Aids: Battery-powered wheelchairs or other similar mobility devices with lithium ion batteries where the design of the mobility aid does not provide adequate protection for the battery(ies) (see 2.3.2.4.3 for details).	YES	NO	YES	YES
Non-radioactive medicinal or toiletry articles (including aerosols) such as hair sprays, perfumes, colognes and medicines containing alcohol; and Non-flammable, non-toxic (Division 2.2) aerosols, with no subsidiary hazard, for sporting or home use (see 2.3.5.1).	NO	YES	YES	NO
The total net quantity of non-radioactive medicinal or toiletry articles and non-flammable, non-toxic (Division 2.2) aerosols must not exceed 2 kg or 2 L and the net quantity of each single article must not exceed 0.5 kg or 0.5 L. Release valves on aerosols must be protected by a cap or other suitable means to prevent inadvertent release of the contents.				
Oxygen or air, gaseous, cylinders required for medical use. The cylinder must not exceed 5 kg gross weight.	YES	YES	YES	YES
Note: Liquid oxygen systems are forbidden for transport.				
Permeation devices, must meet A41 (see 2.3.5.13 for details).	NO	YES	NO	NO
Radioisotopic cardiac pacemakers or other devices, including those powered by lithium batteries, implanted into a person or fitted externally.	NO	ON ONE'S PERSON		NO
Security-type equipment (see 2.3.2.6 for details).	YES	YES	NO	NO
Security-type attaché cases, cash boxes, cash bags, etc. incorporating dangerous goods, such as lithium batteries and/or pyrotechnic material, except as provided in 2.3.2.6 are totally forbidden. See entry in 4.2-List of Dangerous Goods.		FORBIDDEN		
Specimens, non-infectious packed with small quantities of flammable liquid, must meet A180 (see 2.3.5.11 for details).	NO	YES	YES	NO
Thermometer, medical or clinical, which contains mercury, one (1) per person for personal use, when in its protective case.	NO	YES	NO	NO
Thermometer or barometer, mercury filled carried by a representative of a government weather bureau or similar official agency (see 2.3.3.1 for details).	YES	NO	YES	YES

**Note:**

The provisions of Subsection 2.3 and Table 2.3.A may be limited by State or operator variations. Passengers should check with their airline for the current provisions.





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2.3





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## 8 – EASA Facts on Lithium Batteries



# DID YOU KNOW...

facts on lithium batteries

that your phone,  
  
laptop,  
  
and other  
electronic devices  
  
contain  
lithium  
batteries?  


that  
lithium batteries  
  
and e-cigarettes  
  
are  
dangerous  
goods?  
  


that if  
lithium batteries  
are damaged  
or short circuited  
  
they can  
start a **fire?**  


Do not  
put them  
in your checked-in  
luggage  
  
  
Carry them  
with you  


Your safety depends on **You** too

To learn more, please check  
your airline's information on  
dangerous goods

### 9 References:

- ICAO Doc 9284 – Technical Instructions for the Safe Transport of Dangerous Goods by Air (latest edition)
- IATA Dangerous Goods Regulations (DGR) (latest edition)
- EASA Facts on Lithium Batteries
- EASA SIB 2025-03 Passenger and Crew Awareness on the Risks of Lithium Batteries available at <https://ad.easa.europa.eu/ad/2025-03>
- IATA Safe Travel with Lithium Batteries information available at <https://www.iata.org/en/youandiata/travelers/batteries/>