



香港特別行政區政府

民航處

Civil Aviation Department

The Government of the Hong Kong Special Administrative Region

Regulatory Update – Major Changes in the 2025-2026 Edition of the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air (TIs)

Background

The 2025-2026 edition of the International Civil Aviation Organization's ("ICAO") Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284) ("TIs"), upon which the Dangerous Goods (Consignment by Air) (Safety) Ordinance (CAP. 384) and Air Navigation (Dangerous Goods) Regulations (Schedule 16 to CAP. 448C) are based, will come into effect on 1 January 2025.

The major changes below have been produced to facilitate the industry to comply with the new international requirements for the safe transport of dangerous goods by air. For compliance with the requirements, the industries and the parties concerned shall refer to the current edition of the TIs.

Should you have any query about the major changes to the TIs, please contact the Dangerous Goods Office of Civil Aviation Department at 2910 6856 / 2910 6857 / 2910 6855.

Prepared by

Dangerous Goods Office
Civil Aviation Department Hong Kong
November 2024

Major changes to ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284) with effect from 1 January 2025

TI Reference	Detail	Concerned Party
Revisions to general provisions :		Shipper, freight forwarder, operator
1;1.1.5.1 i)	addition of new exception for data loggers and cargo-tracking devices with installed lithium batteries attached to or placed in packages, overpacks or unit load devices	
1;3	addition of new definition for “degree of filling”	
1;3	addition of a note under the definition for “exclusive use” to provide clarity	
1;3	clarification of definition for “recycled plastics material”	
Revisions to classification criteria :		Shipper, freight forwarder
2; Introductory chapter, 1.2	addition of requirement for the shipper to make information used to classify dangerous goods available to the appropriate national authority upon request	
2; Introductory chapter, 6.0	clarification of classification criteria for articles containing dangerous goods, not otherwise specified, when containing lithium cells or batteries	
2;1.2	revision to definitions applicable to Class 1 – Explosives	
Table 2-7	addition of new entries in list of currently assigned organic peroxides in packagings	
Table 2-10	updating of indicative examples of infectious substances included in Category A with respect to monkeypox virus	
Table 2-16	addition of new entries for sodium ion batteries and vehicles powered by lithium and sodium ion batteries	
Table 2-16	addition of criteria for excepting pharmaceutical products that contain genetically modified micro-organisms (GMMOs) or genetically modified organisms (GMOs) from the Technical Instructions	
2;9.4	addition of classification criteria for sodium ion batteries	
3;2(Table 3-1)	Addition of new entries: <ul style="list-style-type: none"> ○ Disilane (UN 3553) ○ Fire suppressant dispersing devices (UN 0514) ○ Fire suppressant dispersing devices (UN 3559) ○ Gallium contained in manufactured articles (UN 3554) ○ Sodium ion batteries with organic electrolyte (UN 3551) ○ Sodium ion batteries contained in equipment with organic electrolyte (UN 3552) ○ Sodium ion batteries packed with equipment with organic electrolyte (UN 3552) ○ Tetramethylammonium hydroxide aqueous solution with not less than 25% tetramethylammonium hydroxide (UN 3560) ○ Tetramethylammonium hydroxide aqueous solution with not more than 2.5% tetramethylammonium hydroxide (UN 1835) ○ Trifluoromethyltetrazole sodium salt in acetone with not less than 68% acetone, by mass (UN 3555) ○ Vehicle, lithium ion battery powered (UN 3556) ○ Vehicle, lithium metal battery powered (UN 3557) ○ Vehicle, sodium ion battery powered (UN 3558) 	
Revisions to proper shipping names :		Shipper, freight forwarder
3;2(Table 3-1)	○ Renaming of Batteries, containing sodium to Batteries, containing metallic sodium or sodium alloy for UN 3292	
3;2(Table 3-1)	○ Renaming of Cells, containing sodium to Cells, containing metallic sodium or sodium alloy for UN 3292	

TI Reference	Detail	Concerned Party
3;2(Table 3-1)	<ul style="list-style-type: none"> Renaming of Tetramethylammonium hydroxide solution to Tetramethylammonium hydroxide aqueous solution with more than 2.5% but less than 25% tetramethylammonium hydroxide for UN 1835 	
Revisions to special provisions :		Shipper, freight forwarder
3;3	Assignment of Special Provision A88 to: <ul style="list-style-type: none"> Articles containing corrosive substance, n.o.s.* (UN 3547) Articles containing flammable gas, n.o.s.* (UN 3537) Articles containing flammable liquid, n.o.s.* (UN 3540) Articles containing flammable solid, n.o.s.* (UN 3541) Articles containing miscellaneous dangerous goods, n.o.s.* (UN 3548) Articles containing non-flammable, non toxic gas, n.o.s.* (UN 3538) Articles containing toxic substance, n.o.s.* (UN 3546) 	
3;3	Special Provision A40: Clarification of criteria for classification as a desensitized explosive	
3;3	Special Provision A69: Updated to incorporate gallium	
3;3	Special Provisions A88, A99, A146 and A154: Updated to incorporate sodium ion cells or batteries	
3;3	Special Provision A107: Revised to allow machinery, apparatus or devices to contain larger quantities of environmentally hazardous substances and excepting those containing smaller quantities from the Instructions	
3;3	Special Provision A115: Updated to incorporate fire suppressant dispersing devices	
3;3	Special Provisions A123 and A199: Addition of provisions allowing dry or nickel-metal hydride battery-powered devices to be transported when active	
3;3	Special Provision A129: Addition of criteria for allowing transport of ammonium nitrate hot concentrated solutions	
3;3	Special Provision A164: Removed on account of being redundant	
3;3	Special Provisions A185 and A214: Revised to incorporate new entries in Table 3-1 for Vehicle, lithium ion battery powered (UN 3556); Vehicle, lithium metal battery powered (UN 3557) and Vehicle, sodium ion battery powered (UN 3558)	
3;3	Special Provision A190: Clarification of provision for transporting neutron radiation detectors containing non-pressurized boron trifluoride gas	
Addition of new special provisions :		Shipper, freight forwarder
3;3	Special Provision A226: Addition of a transition period during which UN numbers assigned to Detonators, electric (UN Nos. 0030, 0255 and 0456) can be used in lieu of UN numbers assigned to Detonators, electronic (UN 0511, UN 0512 and UN 0513)	
3;3	Special Provision A228: Classification criteria for sodium ion cells and batteries with organic electrolyte versus sodium ion batteries with aqueous alkali electrolyte	
3;3	Special Provision A229: Classification criteria for UN 1010 – Butadienes and hydrocarbon mixture, stabilized	
3;3	Special Provision A230: Criteria for excepting UN 3270 – Nitrocellulose membrane filters from the Technical Instructions	

TI Reference	Detail	Concerned Party
3;3	Special Provision A231: Criteria for excepting vehicles powered by sodium ion batteries from the Technical Instructions	
3;3	Special Provision A232: Classification criteria for fire suppressant dispersing devices	
3;3	Special Provision A233: Classification criteria for tetramethylammonium hydroxide aqueous solution	
3;3	Special Provision A234: transition period before new provisions in Table 3-1 for tetramethylammonium hydroxide aqueous solution must be used	
Revisions to packing requirements :		Shipper, freight forwarder
4;1.1.6	New provision extending the allowance of a lower internal pressure differential for liquids in Packing Group III of Class 3 or Division 6.1 to those of Class 9	
4;4.1.1.8	Revision to requirements for protection of valves on cylinders and closed cryogenic receptacles containing gases of Class 2	
4; Packing Instruction 650	Clarification of test criteria	
4; Packing Instruction 650	Allowance for certain information required for infectious substances assigned to UN 3373 to be provided through a machine-readable form	
4; Packing Instruction 952	Incorporation of new UN numbers for vehicles powered by lithium and sodium ion batteries	
4; Packing Instruction 952	Addition of provisions for vehicles powered by lithium ion, rechargeable lithium metal batteries and sodium ion batteries to be shipped with the batteries at a state of charge not exceeding 30 per cent of their rated capacity or an indicated battery capacity not exceeding 25 per cent	
4; Packing Instruction 955	Revision to incorporate sodium ion batteries	
4; Packing Instruction 961	Revision to incorporate UN 3559 – Fire suppressant dispersing devices	
4; Packing Instruction 964	Revision to clarify that an exception from the pressure differential requirements for packagings containing UN 3082 – Environmentally hazardous substance, liquid, n.o.s. applies only when packed in combination packagings	
4; Packing Instructions 966 and 967	Extension of the provisions for UN 3480 – Lithium ion batteries to be shipped at a state of charge not exceeding 30 per cent of their rated capacity to UN 3481 – Lithium ion batteries contained in equipment and UN 3481 – Lithium ion batteries packed with equipment	
4; Packing Instructions 966 and 969	Addition of a requirement in Section II for packages not subject to packaging performance tests of Part 6 to withstand a stacking test	
4; Packing Instructions 967 and 970	Addition of a requirement in Sections I and II for packages not subject to packaging performance tests of Part 6 to withstand a stacking test	
4; Packing Instructions 976, 977 and 978	Addition of packing instructions for sodium ion batteries	
Revisions to marking and labelling requirements :		Shipper, freight forwarder
5;2 and 5;3	Incorporation of provisions for sodium ion batteries	

TI Reference	Detail	Concerned Party
Revisions to documentation requirements :		Shipper, freight forwarder
5;4.1.4.1	Addition of a three-month transition period during which vehicles powered by lithium batteries can be identified on the dangerous goods transport document as UN 3171 – Battery powered vehicle in lieu of UN 3556 – Vehicle, lithium ion battery powered , UN 3557 – Vehicle, lithium metal battery powered or UN 3558 – Vehicle, sodium ion battery powered	
5;4.1.5.7.1 f)	Addition of a requirement for the dimension of packages containing radioactive materials to be on the dangerous goods transport document	
5;4.4.1	Addition of a requirement for the shipper to make dangerous goods transport information required by the Technical Instructions to be made available to the appropriate national authority upon request	
Revisions to packaging marking requirements and tests :		Shipper, freight forwarder
6;2.1.1	Addition of a requirement for marks required for packagings other than inner packagings to be on a non-removable component	
6;3.1	Clarification of requirement for rolling hoops on drums	
6;4.5.3 a)	Extension to the allowance of a lower internal pressure differential for liquids in Packing Group III of Class 3 or Division 6.1 to those of Class 9	
6;5	Updating of references to ISO standards	
Revisions to operator responsibilities :		Operator
7;2 and 7;4	Revision to clarify intent and improve readability	
Revisions to provision for passengers and crew to carry portable electronic devices containing batteries :		Operator
Table 8-1, 1) e)	Addition of a requirement for devices containing lithium batteries carried in the cabin to be protected from damage and inadvertent activation	
Table 8-1, 1) e)	Revisions to clarify that the lithium content and Watt-hour rating limits under which passengers and crew can carry active devices apply to the whole device and not to the individual cells or batteries for active devices	

Dangerous Goods Office
Civil Aviation Department Hong Kong
November 2024

-End-