منظمة الطيران المدني الدولي

ورقة عمل

DGP/28-WP/22*
18/7/21

فريق خبراء البضائع الخطرة

الاجتماع الثامن والعشرون

اجتماع افتراضي، من ١٥ إلى ٢٠٢١/١١/١٩

البند رقم ١ من جدول الأعمال: **التوفيق بين أحكام الإيكاو المتعلقة بالبضائع الخطرة وتوصيات الأمم المتحدة بشأن نقل البضائع الخطرة (REC-A-DGS-2023)**

البند رقم ١-٢: **إعداد ما يلزم من اقتراحات لتعديل وثيقة التعليمات الفنية للنقل الآمن للبضائع الخطرة عن طريق الجو (Doc 9284) لإدخالها في طبعة ٢٠٢٣-٢٠٢٤**

مشروع التعديلات على التعليمات الفنية لمعالجة المخاطر المتعلقة بالسلامة الجوية والحالات الشاذة المتفق عليها خلال الاجتماعين العشرين والحادي والعشرين لمجموعة العمل التابعة لفريق خبراء البضائع الخطرة

(ورقة مقدمة من أمينة فريق الخبراء)

الموجز

تتضمن ورقة العمل هذه مشروع التعديلات على التعليمات الفنية التي جرى إعدادها خلال الاجتماع العشرين لمجموعة العمل التابعة لفريق خبراء البضائع الخطرة (اجتماع افتراضي، ١٩ إلى ٢٠٢٠/١٠/٢٣) والاجتماع الحادي والعشرين لمجموعة العمل التابعة لفريق خبراء البضائع الخطرة (اجتماع افتراضي، ٢٤ إلى ٢٠٢١/٥/٢٨) لمعالجة المخاطر المتعلقة بالسلامة الجوية والحالات الشاذة المتفق عليها فيما يتعلق بنقل البضائع الخطرة.

ويُدعى فريق الخبراء إلى الموافقة على مشروع التعديلات الواردة في ورقة العمل هذه.

* تُرجم ملخص ورقة العمل فقط.

Part 1

GENERAL

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Chapter 2

LIMITATION OF DANGEROUS GOODS ON AIRCRAFT

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DGP-WG/20-WP/2 (see paragraph 3.2.2.1 of the DGP-WG/20 Report) (incorporated in 2021-2022 Edition of Technical Instructions through Addendum No. 1):

2.2 EXCEPTIONS FOR DANGEROUS GOODS OF THE OPERATOR

2.2.1 The provisions of these Instructions do not apply to the following:

a) articles and substances which would otherwise be classified as dangerous goods but which are required to be aboard the aircraft in accordance with the pertinent airworthiness requirements and operating regulations or that are authorized by the State of the Operator to meet special requirements;

b) aerosols, alcoholic beverages, perfumes, colognes, liquefied gas lighters and portable electronic devices containing lithium metal or lithium ion cells or batteries provided that the batteries meet the provisions of Table 8-1, Item 1) carried aboard an aircraft by the operator for use or sale on the aircraft during the flight or series of flights, but excluding non-refillable gas lighters and those lighters liable to leak when exposed to reduced pressure;

c) dry ice intended for use in food and beverage service aboard the aircraft;

d) alcohol-based hand sanitizers and cleaning products carried aboard an aircraft by the operator for use on the aircraft during the flight or series of flights for the purposes of passenger and crew hygiene;

~~d~~e) electronic devices, such as electronic flight bags, personal entertainment devices, and credit card readers, containing lithium metal or lithium ion cells or batteries and spare lithium batteries for such devices carried aboard an aircraft by the operator for use on the aircraft during the flight or series of flights, provided that the batteries meet the provisions of Table 8-1, Item 1). Spare lithium batteries must be individually protected so as to prevent short circuits when not in use. Conditions for the carriage and use of these electronic devices and for the carriage of spare batteries must be provided in the operations manual and/or other appropriate manuals as will enable flight crew, cabin crew and other employees to carry out the functions for which they are responsible.

2.2.2 Unless otherwise authorized by the State of the Operator, articles and substances intended as replacements for those referred to in 2.2.1 a), or articles and substances referred to in 2.2.1 a) which have been removed for replacement, must be transported in accordance with the provisions of these Instructions, except that when consigned by operators, they may be carried in containers specially designed for their transport, provided such containers are capable of meeting at least the requirements for the packagings specified in these Instructions for the items packed in the containers.

2.2.3 Unless otherwise authorized by the State of the Operator, articles and substances intended as replacements for those referred to in 2.2.1 b) ~~and~~, c) and d) must be transported in accordance with the provisions of these Instructions.

2.2.4 Unless otherwise authorized by the State of the Operator, battery-powered devices with installed batteries and spare batteries intended as replacements for those referred to in 2.2.1 ~~d)~~ e) must be transported in accordance with the provisions of these Instructions.

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Part 2

CLASSIFICATION OF DANGEROUS GOODS

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Chapter 4

CLASS 4 — FLAMMABLE SOLIDS; SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION; SUBSTANCES WHICH, IN CONTACT WITH WATER, EMIT FLAMMABLE GASES

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4.2 FLAMMABLE SOLIDS, SELF-REACTIVE SUBSTANCES, DESENSITIZED EXPLOSIVES AND POLYMERIZING SUBSTANCES

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4.2.3 Division 4.1 — Self-reactive substances

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To be introduced into 2021-2022 Edition of the Technical Instructions through a corrigendum DGP-WG/20-WP/20 (see paragraph 3.2.2.12 of the DGP-WG/20 Report):

4.2.3.2.4 List of currently assigned self-reactive substances in packages

The following table (Table 2-6) is reproduced from 2.4.2.3.2.3 of the UN *Recommendations on the Transport of Dangerous Goods* (~~Eighteenth~~ Twenty-first revised edition), with irrelevant material removed.

Table 2-6. List of currently assigned self-reactive substances in packagings

Note.— Self-reactive substances to be transported must fulfil the classification and the control and emergency temperatures (derived from the self-accelerating decomposition temperature (SADT)) as listed.

Self-reactive substance	*Concentration (%)*	*Control temperature (°C)*	*Emergency temperature (°C)*	*UN generic entry*	*Notes*
. . .					
2-(~~n~~N, ~~n~~N-Ethoxycarbonylphenylamino)-3-methoxy-4-(~~n~~N-methyl- ~~n~~N-cyclohexylamino) benzenediazonium zinc chloride	63-92	+40	+45	3236	
2-(~~n~~N, ~~n~~N-Ethoxycarbonylphenylamino)-3-methoxy-4-(~~n~~N-methyl- ~~n~~N-cyclohexylamino) benzenediazonium zinc chloride	62	+35	+40	3236	
2-(~~n~~N, ~~n~~N-Methylaminoethylcarbonyl)-4-(3,4-dimethylphenylsulphonyl) benzenediazonium hydrogen sulphate	96	+45	+50	3236	
. . .					

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DGP-WG/21-WP/2 (see paragraph 3.2.2.1 of DGP-WG/21 Report):

4.2.3.3 *Temperature control requirements*

With the exception of self-reactive solids of type B, which are forbidden for transport by air under any circumstance, self-reactive substances which require temperature control during transport are forbidden for transport by air unless exempted (see 1;1.1.~~2~~3). Self-reactive substances must be subject to temperature control if their self-accelerating decomposition temperature (SADT) is less than or equal to 55°C. Test methods for determining the SADT are given in the current edition of the UN *Manual of Tests and Criteria*. The test selected must be conducted in a manner which is representative of the package to be transported both in size and material of construction.

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Chapter 5

CLASS 5 — OXIDIZING SUBSTANCES; ORGANIC PEROXIDES

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5.3 ORGANIC PEROXIDES (DIVISION 5.2)

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5.3.3 TEMPERATURE CONTROL REQUIREMENTS

DGP-WG/21-WP/2 (see paragraph 3.2.2.1 of DGP-WG/21 Report):

5.3.3.1 An organic peroxide formulation must be regarded as possessing explosive properties when, in laboratory testing, the formulation is liable to detonate, to deflagrate rapidly or to show a violent effect when heated under confinement. With the exception of organic peroxides of type B, which are forbidden for transport by air under any circumstance, organic peroxides requiring temperature control during transport are forbidden for transport by air unless approved or exempted, as applicable (see 1;1.1.2 and 1;1.1.3).

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Part 3

DANGEROUS GOODS LIST, SPECIAL PROVISIONS AND LIMITED AND EXCEPTED QUANTITIES

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Table 3-1. Dangerous Goods List

Name	*UN No.*	*Class or division*	*Subsidiary hazard*	*Labels*	*State variations*	*Special provisions*	*UN packing group*	*Excepted quantity*	*Passenger and cargo aircraft*		*Cargo aircraft only*	
									Packing instruction	*Max. net quantity per package*	*Packing instruction*	*Max. net quantity per package*
1	*2*	*3*	*4*		*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
. . .												
DGP-WG/21-WP/29 (see paragraph 3.2.2.22 of DGP-WG/21 Report):												
Articles containing miscellaneous dangerous goods, n.o.s.*	3548	9	See 2;0.6	Miscellaneous		A2 A224			FORBIDDEN		FORBIDDEN	
Articles containing non-flammable, non toxic gas, n.o.s.*	3538	2.2	See 2;0.6	Gas non-flammable		A2 A225			FORBIDDEN		FORBIDDEN	
. . .												
DGP-WG/21-WP/21, Revised (see paragraph 3.2.2.4 of DGP-WG/21 Report):												
Life-saving appliances, not self-inflating containing dangerous goods as equipment	3072	9		Miscellaneous		A48 A87 A182 A223		E0	~~see~~ 955	No limit	~~see~~ 955	No limit
Life-saving appliances, self-inflating	2990	9		Miscellaneous		A48 A87 A223		E0	~~see~~ 955	No limit	~~see~~ 955	No limit
. . .												

Chapter 3

SPECIAL PROVISIONS

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Table 3-2. Special provisions

TIs	*UN*

DGP-WG/21-WP/3 (see paragraph 3.2.2.14 of DGP-WG/21 Report):

A1 This article or substance may be transported on passenger aircraft only with the prior approval of the appropriate authority of the State of Origin and the State of the Operator under the written conditions established by those authorities. The conditions must include the quantity limitations and packing requirements and these must comply with S-3;1.2.2 of the Supplement. A copy of the document(s) of approval, showing the quantity limitations and packing requirements, must accompany the consignment. Transport in accordance with this special provision must be noted on the dangerous goods transport document. The article or substance may be carried on cargo aircraft in accordance with columns 12 and 13 of Table 3-1.

When States, other than the State of Origin and the State of the Operator, have notified ICAO that they require prior approval of shipments made under this special provision, approval must also be obtained from these States, as appropriate.

A2 This article or substance may be transported on cargo aircraft only with the prior approval of the appropriate authority of the State of Origin and the State of the Operator under the written conditions established by those authorities.

When States, other than the State of Origin and the State of the Operator, have notified ICAO that they require prior approval of shipments made under this special provision, approval must also be obtained from the States of transit, overflight and destination, as appropriate.

In each case, the conditions must include the quantity limitations and packing requirements and these must comply with S-3;1.2.3 of the Supplement. A copy of the document(s) of approval, showing the quantity limitations and the packing and labelling requirements, must accompany the consignment. Transport in accordance with this special provision must be noted on the dangerous goods transport document.

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DGP-WG/21-WP/34 (see paragraph 3.2.2.7 of DGP-WG/21 Report):

A35 This substance is not subject to these Instructions when:

— mechanically produced, particle size ~~more than~~ of 53 microns or more; or
— chemically produced, particle size ~~more than~~ of 840 microns or more.

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To be introduced into 2021-2022 Edition of the Technical Instructions through a corrigendum
DGP-WG/20-WP/6 (see paragraph 3.2.2.5 of DGP-WG/20 Report):

A46 (≈216) Mixtures of solids which are not subject to these Instructions and flammable liquids may be transported under this entry without first applying the classification criteria of Division 4.1, providing there is no free liquid visible at the time the substance is packaged and, for single packagings, the packaging must pass a leakproofness test at the Packing Group II level. ~~Small inner packagings consisting of~~ ~~s~~Sealed packets ~~or~~ and articles containing less than 10 mL of a Packing Group II or III flammable liquid absorbed into a solid material are not subject to these Instructions provided there is no free liquid in the packet or articles.

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TIs *UN*

DGP-WG/20-WP/8 (see paragraph 3.2.2.7 of DGP-WG/20 Report):

A61 (168) Asbestos which is immersed or fixed in a natural or artificial binder (such as cement, plastics, asphalt, resins or mineral ore) in such a way that no escape of hazardous quantities of respirable asbestos fibres can occur during transport is not subject to these Instructions. Manufactured articles, containing asbestos and not meeting this requirement, are nevertheless not subject to these Instructions, when packed so that no escape of hazardous quantities of respirable asbestos fibres can occur during transport.

The words "not restricted" and the special provision number A61 must be provided on the air waybill when an air waybill is issued.

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DGP-WG/21-WP/4, Revised (see paragraph 3.2.2.15 of DGP-WG/21 Report):

A99 Irrespective of the quantity limits for cargo aircraft specified in column 13 of Table 3-1, and in Section I of Packing Instructions 965, 966, 967, 968, 969 and 970, a lithium battery or battery assembly (i.e. UN 3090 or UN 3480), including when packed with equipment or contained in equipment (i.e. UN 3091 or UN 3481) that meets the other requirements of Section I of the applicable packing instruction, may have a mass exceeding 35 kg, if approved by the appropriate authority of the State of Origin and the State of the Operator and the requirements in Packing Instruction 974 of the Supplement are met.

A copy of the document of approval must accompany the consignment. Transport in accordance with this special provision must be noted on the dangerous goods transport document.

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DGP-WG/21-WP/10 (see paragraph 3.2.2.3 of DGP-WG/21 Report):

A117 Wastes containing Category A infectious substances must be assigned to UN 2814, ~~or~~ UN 2900 or UN 3549, as applicable. Wastes transported under UN 3291 are wastes containing infectious substances in Category B or wastes that are reasonably believed to have a low probability of containing infectious substances. Decontaminated wastes which previously contained infectious substances may be considered as not subject to these Instructions unless the criteria of another class or division are met.

DGP-WG/21-WP/33 (see paragraph 3.2.2.6 of DGP-WG/21 Report):

A132 (204) Articles containing smoke-producing substance(s) corrosive according to the criteria for Class 8 must be labelled with a "Corrosive" subsidiary hazard label. Articles containing smoke-producing substance(s) toxic by inhalation according to the criteria for Division 6.1 must be labelled with a "TOXIC" subsidiary hazard label (Figure 5-18)~~, except that those manufactured before 31 December 2016 may be offered for transport until 31 December 2018 without a "TOXIC" subsidiary label~~.

TIs *UN*

DGP-WG/20-WP/18 (see paragraph 3.2.2.11 of DGP-WG/20 Report):

A180 Non-infectious specimens, such as specimens of mammals, birds, amphibians, reptiles, fish, insects and other invertebrates containing small quantities of UN 1170, UN 1198, UN 1987 or UN 1219 are not subject to these Instructions provided the following packing and marking requirements are met:

a) specimens are:

1) wrapped in paper towel and/or cheesecloth moistened with alcohol ~~or~~, an alcohol solution or a formaldehyde solution and then placed in a plastic bag that is heat-sealed. Any free liquid in the bag must not exceed 30 mL; or

2) placed in vials or other rigid containers with no more than 30 mL of alcohol ~~or~~, an alcohol solution or a formaldehyde solution;

b) the prepared specimens are then placed in a plastic bag that is then heat-sealed;

c) the bagged specimens are then placed inside ~~a~~ another plastic bag with absorbent material then heat-sealed;

d) the finished bag is then placed in a strong outer packaging with suitable cushioning material;

e) the total quantity of flammable liquid per outer packaging must not exceed 1 L; and

f) the completed package is marked “scientific research specimens, not restricted Special Provision A180 applies”.

The words “not restricted” and the special provision number A180 must be provided on the air waybill when an air waybill is issued.

. . .

DGP-WG/21-WP/21, Revised (see paragraph 3.2.2.4 of DGP-WG/21 Report):

A223 (≈296) Life-saving appliances packed in strong rigid outer packagings with a total maximum gross mass not exceeding 40 kg, containing no dangerous goods other than Division 2.2 compressed or liquefied gases (with no subsidiary hazard) contained in receptacles with a capacity not exceeding 120 mL and installed solely for the purpose of the activation of the appliance, are not subject to these Instructions when carried as cargo.

DGP-WG/21-WP/29 (see paragraph 3.2.2.22 of DGP-WG/21 Report):

A224 UN 3548 — **Articles containing miscellaneous dangerous goods, n.o.s.** may be transported on passenger and cargo aircraft irrespective of the indication of “forbidden” in columns 10 to 13 of Table 3-1, provided:

a) the only dangerous goods contained in the article is an environmentally hazardous substance;

b) the articles are packed in accordance with Packing Instruction 975; and

c) reference to Special Provision A224 is made on the dangerous goods transport document as required by Part 5;4.1.5.8

All other provisions of these Instructions apply. If the above conditions are met, the requirements of Special Provision A2 do not apply.

TIs *UN*

DGP-WG/21-WP/29 (see paragraph 3.2.2.22 of DGP-WG/21 Report):

A225 UN 3538 — **Articles containing non-flammable, non-toxic gas, n.o.s.** may be transported on passenger and cargo aircraft irrespective of the indication of "forbidden" in columns 10 to 13 of Table 3-1, provided:

a) the only dangerous goods contained in the article is a Division 2.2 gas without a subsidiary hazard, but excluding refrigerated liquefied gases and gases forbidden for transport on passenger aircraft;

b) the articles are packed in accordance with Packing Instruction 222; and

c) reference to Special Provision A225 is made on the dangerous goods transport document as required by Part 5;4.1.5.8.

All other provisions of these Instructions apply. If the above conditions are met, the requirements of Special Provision A2 do not apply.

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Part 4

PACKING INSTRUCTIONS

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DGP-WG/21-WP/29 (see paragraph 3.2.2.22 of DGP-WG/21 Report):

Packing Instruction 222

Passenger and cargo aircraft for UN 3538 only

Introduction

This packing instruction is only permitted for articles which do not have an existing proper shipping name and which contain only gases of Division 2.2 without a subsidiary hazard, but excluding refrigerated liquefied gases and gases forbidden for transport on passenger aircraft, where the quantity of the Division 2.2 gas exceeds the quantity limits for UN 3363 as prescribed in Packing instruction 962.

General requirements

Part 4;1.1.1, 4;1.1.3, 4;1.1.12 and 4;2 requirements must be met.

UN number and proper shipping name	*Maximum net quantity of gas — passenger*	*Maximum net quantity of gas — cargo*
UN 3538 **Articles containing non-flammable, non-toxic gas, n.o.s.***	75 kg	150 kg

ADDITIONAL PACKING REQUIREMENTS

— Packagings must meet Packing Group II performance requirements.
— Receptacles within articles containing gases must meet the requirements of 4;4.1.1 and 6;5 as appropriate or meet a national or regionally recognized pressure receptacle standard such as the European Pressure Equipment Directive (2014/68/EU) or ASME Section VII,Div.1 R that is capable of providing an equivalent level of protection as Packing Instructions 200 or 219.
— Articles must be packed to prevent movement and inadvertent operation during normal conditions of transport.

ROBUST ARTICLES

Robust articles may alternatively be transported in strong outer packagings constructed of suitable material and of adequate strength and design in relation to the packaging capacity and its intended use. The packagings must achieve a level of protection that is at least equivalent to that provided by 6;1. Articles may be transported unpackaged or on pallets when the dangerous goods are afforded equivalent protection by the article in which they are contained. In such cases the additional requirement related to Packing Group II performance requirements and the requirement for UN specification packagings do not apply.

OUTER PACKAGINGS (see 6;3.1)

Boxes	*Drums*	*Jerricans*
Aluminium (4B)	Aluminium (1B2)	Aluminium (3B2)
Fibreboard (4G)	Fibre (1G)	Plastics (3H2)
Natural wood (4C1, 4C2)	Other metal (1N2)	Steel (3A2)
Other metal (4N)	Plastics (1H2)	
Plastics (4H1, 4H2)	Plywood (1D)	
Plywood (4D)	Steel (1A2)	
Reconstituted wood (4F)		
Steel (4A)		

DGP-WG/21-WP/22 (see paragraph 3.2.2.12 of DGP-WG/21 Report):

Packing Instruction 621

The general packing requirements of 4;1 except 1.1.20 must be met.

~~Consignments must be prepared in such a manner that they arrive at their destination in good condition and present no hazard to persons or animals during transport.~~

Consignments must be packed in steel drums (1A2), aluminium drums (1B2), other metal drums (1N2), plywood drums (1D), fibre drums (1G), plastic drums (1H2), steel jerricans (3A2), aluminium jerricans (3B2), plastic jerricans (3H2), steel boxes (4A), aluminium boxes (4B), wooden boxes (4C1, 4C2), plywood boxes (4D), reconstituted wood boxes (4F) or fibreboard boxes (4G), plastic boxes (4H1, 4H2), other metal boxes (4N). Packagings must meet Packing Group II requirements.

The packaging tests may be those appropriate for solids when there is sufficient absorbent material to absorb the entire amount of liquid present and the packaging is capable of retaining liquids.

In all other circumstances, the packaging tests must be those appropriate for liquids.

Packagings intended to contain sharp objects such as broken glass and needles must be resistant to puncture and retain liquids under the performance test conditions for the packaging.

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DGP-WG/21-WP/8 (see paragraph 3.2.2.11 of DGP-WG/21 Report):

Packing Instruction 870

Passenger and cargo aircraft for UN 2794 and 2795 only

General requirements

Part 4, Chapter 1 requirements must be met, including:

1) **Compatibility requirements**

— Substances must be compatible with their packagings as required by 4;1.1.3.
— Metal packagings must be corrosion resistant or be protected against corrosion.

2) **Closure requirements**

— Closures must meet the requirements of 4;1.1.4.

UN number and proper shipping name	*Packing conditions*	*Total quantity per package — passenger*	*Total quantity per package — cargo*
UN 2794 **Batteries, wet, filled with acid** UN 2795 **Batteries, wet, filled with alkali**	Batteries must be placed in an acid/alkali-proof liner of sufficient strength and adequately sealed to positively preclude leakage in the event of spillage. The batteries must be packed so that the fill openings and vents, if any, are upward; they must be incapable of short-circuiting and be securely cushioned in the packagings. The upright position of the package must be indicated on it by "Package orientation" labels (Figure 5-29) as required by 5;3. The words "This side up" or "This end up" may also be displayed on the top of the package.	30 kg	No limit
	~~*Batteries installed in equipment*~~ ~~If batteries are shipped as an integral component of assembled equipment, they must be securely installed and fastened in an upright position and protected against contact with other articles so as to prevent short circuits. Batteries must be removed and packed according to this packing instruction if the assembled equipment is likely to be carried in other than an upright position.~~		

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DGP-WG/21-WP/21, Revised (see paragraph 3.2.2.4 of DGP-WG/21 Report):

Packing Instruction 955

Passenger and cargo aircraft for UN 2990 and UN 3072 only

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ADDITIONAL PACKING REQUIREMENTS

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The appliances must be packed, so that they cannot be accidentally activated, in strong outer packagings and, except for life vests, the dangerous goods must be in inner packagings packed so as to prevent movement. The dangerous goods must be an integral part of the appliance without which it would not be operational and in quantities which do not exceed those appropriate for the actual appliance when in use.

~~Life-saving appliances packed in strong rigid outer packagings with a total maximum gross mass of 40 kg, containing no dangerous goods other than Division 2.2 compressed or liquefied gases with no subsidiary hazard in receptacles with a capacity not exceeding 120 mL, installed solely for the purpose of the activation of the appliance, are not subject to these Instructions when carried as cargo.~~

Life-saving appliances may also include articles and substances not subject to these Instructions which are an integral part of the appliance.

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DGP-WG/20-WP/4 (see paragraph 3.3.6.1 of DGP-WG/20 Report) and DGP-WG/20-WP/16 (see paragraph 3.3.6.2 of DGP-WG/20 Report):

Packing Instruction 966

Passenger and cargo aircraft for UN 3481 (packed with equipment) only

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I. **SECTION I**

Each cell or battery must meet the provisions of 2;9.3.

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I.2 **Additional requirements**

- Lithium ion cells and batteries must be protected against short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to a short circuit.
- Lithium ion cells ~~or~~ and batteries must:
  - be placed in inner packagings that completely enclose the cell or battery, then placed in a~~n outer~~ packaging of a type shown below that meets the Packing Group II performance requirements, then placed with the equipment in a strong, rigid outer packaging~~. The completed package for the cells or batteries must meet the Packing Group II performance requirements~~; or
  - be placed in inner packagings that completely enclose the cell or battery, then placed with the equipment in a packaging of a type shown below that meets the Packing Group II performance requirements.
- The equipment must be secured against movement within the outer packaging ~~and must be equipped with an effective means of preventing accidental activation~~.
- The number of cells or batteries in each package must not exceed the number required for the equipment's operation, plus two spare sets. A "set" of cells or batteries is the number of individual cells or batteries that are required to power each piece of equipment.
- Batteries manufactured after 31 December 2011 must be marked with the Watt-hour rating on the outside case.

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Packing Instruction 966

II. **SECTION II**

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II.2 **Additional requirements**

— Lithium ion cells and batteries must: be placed in inner packagings that completely enclose the cell or battery, then placed with the equipment in a strong rigid outer packaging.
— ~~be placed in inner packagings that completely enclose the cell or battery, then placed in a strong rigid outer packaging; or~~
— ~~be placed in inner packagings that completely enclose the cell or battery, then placed with the equipment in a strong rigid outer packaging.~~
— Cells and batteries must be protected ~~so as to prevent~~ against short circuits. This includes protection against contact with electrically conductive material within the same packaging that could lead to a short circuit.
— The equipment must be secured against movement within the outer packaging ~~and must be equipped with an effective means of preventing accidental activation~~.
— The number of cells or batteries in each package must not exceed the number required for the equipment's operation, plus two spare sets. A "set" of cells or batteries is the number of individual cells or ~~batters~~ batteries that are required to power each piece of equipment.

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DGP-WG/21-WP/23 (see paragraph 3.3.1.1 of DGP-WG/21 Report):

Packing Instruction 967

Passenger and cargo aircraft for UN 3481 (contained in equipment) only

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I. **SECTION I**

Each cell or battery must meet the provisions of 2;9.3.

I.1 **General requirements**

Equipment must be packed in strong rigid outer packagings that conform to Part 4;1.1.1, 1.1.3.1 and 1.1.10 (except 1.1.10.1). Large equipment can be offered for transport unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained.

UN number and proper shipping name	*Package quantity (Section I)*	
	Passenger	*Cargo*
UN 3481 **Lithium ion batteries contained in equipment**	5 kg of lithium ion cells or batteries	35 kg of lithium ion cells or batteries

I.2 **Additional requirements**

— The equipment must be secured against movement within the outer packaging and ~~be packed so as to prevent accidental operation during air transport~~ must be equipped with an effective means of preventing accidental activation.
— ~~The equipment must be packed in strong rigid outer packagings constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the battery is afforded equivalent protection by the equipment in which it is contained.~~ Where multiple pieces of equipment are packed in the same outer packaging, each piece of equipment must be packed to prevent contact with other equipment.
— Batteries manufactured after 31 December 2011 must be marked with the Watt-hour rating on the outside case.

I.3 **Outer packagings**

Boxes	*Drums*	*Jerricans*
Aluminium	Aluminium	Aluminium
Fibreboard	Fibre	Plastics
Natural wood	Other metal	Steel
Other metal	Plastics	
Plastics	Plywood	
Plywood	Steel	
Reconstituted wood		
Steel		

II. **SECTION II**

. . .

II.1 **General requirements**

Equipment must be packed in strong rigid outer packagings that conform to Part 4;1.1.1, 1.1.3.1 and 1.1.10 (except 1.1.10.1). Large equipment can be offered for transport unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained.

Contents	*Package quantity (Section II)*	
	Passenger	*Cargo*
Net quantity of lithium ion cells or batteries per package	5 kg	5 kg

II.2 **Additional requirements**

- The equipment must be secured against movement within the outer packaging and must be equipped with an effective means of preventing accidental activation.
- Cells and batteries must be protected so as to prevent short circuits.
- ~~The equipment must be packed in strong rigid outer packagings constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the battery is afforded equivalent protection by the equipment in which it is contained.~~Where multiple pieces of equipment are packed in the same outer packaging, each piece of equipment must be packed to prevent contact with other equipment.
- Each package must be marked with the appropriate lithium battery mark (Figure 5-3). The package must be of such size that there is adequate space to affix the mark on one side without the mark being folded.
  - This requirement does not apply to:
    - packages containing only button cell batteries installed in equipment (including circuit boards); and
    - packages containing no more than four cells or two batteries installed in equipment, where there are not more than two packages in the consignment.
- Where a consignment includes packages bearing the lithium battery mark, the words "lithium ion batteries, in compliance with Section II of PI967" must be placed on the air waybill, when an air waybill is used. Where packages of Section II lithium batteries from multiple packing instructions are included on one air waybill, the compliance statement for the different lithium battery types and/or packing instructions may be combined into a single statement provided that the statement identifies the applicable lithium battery type(s), packing instruction numbers and "CAO", when applicable.
- Any person preparing or offering cells or batteries for transport must receive adequate instruction on these requirements commensurate with the functions for which they are responsible.

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DGP-WG/20-WP/4 (see paragraph 3.3.6.1 of DGP-WG/20 Report) and DGP-WG/20-WP/16 (see paragraph 3.3.6.2 of DGP-WG/20 Report):

Packing Instruction 969

Passenger and cargo aircraft for UN 3091 (packed with equipment) only

I. **SECTION I**

Each cell or battery must meet the provisions of 2;9.3.

. . .

I.2 **Additional requirements**

— Lithium metal cells and batteries must be protected against short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to a short circuit.
— Lithium metal cells ~~or~~ and batteries must:
  — be placed in inner packagings that completely enclose the cell or battery, then placed in a~~n outer~~ packaging of a type shown below that meets the Packing Group II performance requirements, then placed with the equipment in a strong, rigid outer packaging. ~~The completed package for the cells or batteries must meet the Packing Group II performance requirements~~; or
  — be placed in inner packagings that completely enclose the cell or battery, then placed with the equipment in a packaging of a type shown below that meets the Packing Group II performance requirements.
— The equipment must be secured against movement within the outer packaging ~~and must be equipped with an effective means of preventing accidental activation~~.
— The number of cells or batteries in each package must not exceed the number required for the equipment's operation, plus two spare sets. A "set" of cells or batteries is the number of individual cells or batteries that are required to power each piece of equipment.
— For lithium metal cells and batteries prepared for transport on passenger aircraft as Class 9:
  — cells and batteries offered for transport on passenger aircraft must be packed in intermediate or outer rigid metal packaging surrounded by cushioning material that is non-combustible and non-conductive and placed inside an outer packaging.

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II. **SECTION II**

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II.2 **Additional requirements**

— Lithium metal cells and batteries must~~:~~ be placed in inner packagings that completely enclose the cell or battery, then placed with the equipment in a strong rigid outer packaging.
~~— be placed in inner packagings that completely enclose the cell or battery, then placed in a strong rigid outer packaging; or~~
~~— be placed in inner packagings that completely enclose the cell or battery, then placed with the equipment in a strong rigid outer packaging.~~
— Cells and batteries must be protected ~~so as to prevent~~ against short circuits. This includes protection against contact with electrically conductive material within the same packaging that could lead to a short circuit.
— The equipment must be secured against movement within the outer packaging ~~and must be equipped with an effective means of preventing accidental activation~~.

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DGP-WG/21-WP/23 (see paragraph 3.3.1.1 of DGP-WG/21 Report):

Packing Instruction 970

Passenger and cargo aircraft for UN 3091 (contained in equipment) only

1. **Introduction**

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I. **SECTION I**

Each cell or battery must meet the provisions of 2;9.3.

I.1 **General requirements**

Equipment must be packed in strong rigid outer packagings that conform to Part 4;1.1.1, 1.1.3.1 and 1.1.10 (except 1.1.10.1). Large equipment can be offered for transport unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained.

	Package quantity (Section I)	
UN number and proper shipping name	*Passenger*	*Cargo*
UN 3091 **Lithium metal batteries contained in equipment**	5 kg of lithium metal cells or batteries	35 kg of lithium metal cells or batteries

I.2 **Additional requirements**

— The equipment must be secured against movement within the outer packaging and must be equipped with an effective means of preventing accidental activation.
— ~~The equipment must be packed in strong rigid outer packagings constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the battery is afforded equivalent protection by the equipment in which it is contained.~~Where multiple pieces of equipment are packed in the same outer packaging, each piece of equipment must be packed to prevent contact with other equipment.
— The quantity of lithium metal contained in any piece of equipment must not exceed 12 g per cell and 500 g per battery.

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II. **SECTION II**

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II.1 **General requirements**

Equipment must be packed in strong rigid outer packagings that conform to Part 4;1.1.1, 1.1.3.1 and 1.1.10 (except 1.1.10.1). Large equipment can be offered for transport unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained.

	Package quantity (Section II)	
Contents	*Passenger*	*Cargo*
Net quantity of lithium metal cells or batteries per package	5 kg	5 kg

II.2 **Additional requirements**

— The equipment must be secured against movement within the outer packaging and must be equipped with an effective means of preventing accidental activation.
— Cells and batteries must be protected so as to prevent short circuits.
— ~~The equipment must be packed in strong rigid outer packagings constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the battery is afforded equivalent protection by the equipment in which it is contained.~~Where multiple pieces of equipment are packed in the same outer packaging, each piece of equipment must be packed to prevent contact with other equipment.
— Each package must be marked with the appropriate lithium battery mark (Figure 5-3). The package must be of such size that there is adequate space to affix the mark on one side without the mark being folded.
  — This requirement does not apply to:
    — packages containing only button cell batteries installed in equipment (including circuit boards); and
    — packages containing no more than four cells or two batteries installed in equipment, where there are not more than two packages in the consignment.
— Where a consignment includes packages bearing the lithium battery mark, the words "lithium metal batteries, in compliance with Section II of PI970" must be placed on the air waybill, when an air waybill is used. Where packages of Section II lithium batteries from multiple packing instructions are included on one air waybill, the compliance statement for the different lithium battery types and/or packing instructions may be combined into a single statement provided that the statement identifies the applicable lithium battery type(s), packing instruction numbers and "CAO", when applicable.
— Any person preparing or offering cells or batteries for transport must receive adequate instruction on these requirements commensurate with the functions for which they are responsible.

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DGP-WG/21-WP/29 (see paragraph 3.2.2.22 of DGP-WG/21 Report):

Packing Instruction 975

Passenger and cargo aircraft for UN 3548 only

Introduction

This packing instruction is only permitted for articles which do not have an existing proper shipping name and which contain only environmentally hazardous substances where the quantity of the environmentally hazardous substance in the article exceeds 5 L or 5 kg.

General requirements

Part 4;1.1.1, 4;1.1.3, 4;1.1.12 and 4;2 requirements must be met.

UN number and proper shipping name	*Quantity — passenger*	*Quantity — cargo*
UN 3548 **Articles containing miscellaneous dangerous goods, n.o.s.***	No limit	No limit

ADDITIONAL PACKING REQUIREMENTS

— Packagings must meet Packing Group II performance requirements.
— Receptacles containing liquids or solids within articles must be constructed of suitable materials and secured in the article in such a way that, under normal conditions of transport, they cannot break, be punctured or leak their contents into the article itself or the outer packaging.
— Receptacles containing liquids with closures must be packed with their closures correctly oriented. The receptacles must in addition conform to the internal pressure test provisions of 6;4.5.
— Receptacles that are liable to break or be punctured easily, such as those made of glass or of certain plastics materials must be properly secured, and any leakage of the contents must not substantially impair the protective properties of the article or of the outer packaging.
— Where there is no receptacle within the article, the article must fully enclose the dangerous goods and prevent their release under normal conditions of transport.
— Articles must be packed to prevent movement and inadvertent operation during normal conditions of transport.

ROBUST ARTICLES

Robust articles may alternatively be transported in strong outer packagings constructed of suitable material and of adequate strength and design in relation to the packaging capacity and its intended use. The packagings must achieve a level of protection that is at least equivalent to that provided by 6;1. Articles may be transported unpackaged or on pallets when the dangerous goods are afforded equivalent protection by the article in which they are contained. In such cases the additional requirement related to Packing Group II performance requirements and the requirement for UN specification packagings do not apply.

OUTER PACKAGINGS (see 6;3.1)

Boxes	*Drums*	*Jerricans*
Aluminium (4B)	Aluminium (1B2)	Aluminium (3B2)
Fibreboard (4G)	Fibre (1G)	Plastics (3H2)
Natural wood (4C1, 4C2)	Other metal (1N2)	Steel (3A2)
Other metal (4N)	Plastics (1H2)	
Plastics (4H1, 4H2)	Plywood (1D)	
Plywood (4D)	Steel (1A2)	
Reconstituted wood (4F)		
Steel (4A)		

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Part 5

SHIPPER'S RESPONSIBILITIES

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Chapter 4

DOCUMENTATION

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4.1.5 Information required in addition to the dangerous goods description

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DGP-WG/20-WP/9 (see paragraph 3.2.2.8 of DGP-WG/20 Report):

4.1.5.7 *Radioactive material*

4.1.5.7.1 The following information must be included for each consignment of Class 7 material, as applicable, in the order given:

a) The name or symbol of each radionuclide or, for mixtures of radionuclides, an appropriate general description or a list of the most restrictive nuclides;

[*Note.— For radionuclides not listed in Table 2-12, refer to 5;4.1.5.8.1 g) for additional information required on the dangerous goods transport document.*]

b) A description of the physical and chemical form of the material, or a notation that the material is special form radioactive material or low dispersible radioactive material. A generic chemical description is acceptable for chemical form;

Note.— For empty Type B(U) or Type B(M) packages as specified in the Note to 2;7.2.4.1.1.7, the name or symbol of the radionuclide of the shielding material followed by the physical and chemical form must be included (e.g. U-dep., solid, metal oxide) in which case the indicated radionuclide may differ from the radionuclide(s) authorized in the package design certificate.

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4.1.5.8 *Additional requirements*

4.1.5.8.1 The dangerous goods transport document must also contain:

a) except for radioactive material, the packing instruction applied. For shipments of lithium batteries prepared in accordance with Section IB of Packing Instruction 965 or Packing Instruction 968, the letters "IB" must be added following the packing instruction number;

Note.— Packing Instruction 622 from the 2019-2020 Edition of these Instructions was renumbered as 621 in this edition. Until 31 March 2021, Packing Instruction 622 may continue to be indicated on the dangerous goods transport document when applied to UN 3291, ***Biomedical waste, n.o.s., Clinical waste, unspecified, n.o.s., Medical waste, n.o.s.****, or* ***Regulated medical waste, n.o.s****.*

DGP-WG/21-WP/3 (see paragraph 3.2.2.14 of DGP-WG/21 Report):

b) when applicable, reference to Special Provision A1, A2, A4, A5, A51, A78, A88, A190, A191, A201, A202~~, A208~~, A211 ~~or~~, A212, A224 or A225;

c) a statement indicating that the shipment is within the limitations prescribed for either passenger and cargo aircraft or cargo-only aircraft, as appropriate;

Note.— To qualify as acceptable for transport aboard passenger aircraft, passenger aircraft packing instruction number(s) must be used, and the package must not bear the "Cargo aircraft only" label. To qualify as acceptable for transport aboard cargo-only aircraft, cargo aircraft packing instruction number(s) must be used, and the package must bear the "Cargo aircraft only" label; or passenger aircraft instruction number(s) must be shown and no "Cargo aircraft only" label applied. However, where the packing instruction number(s) and the permitted quantity per package are identical for passenger and cargo aircraft, the "Cargo aircraft only" label should not be used.

d) special handling information, when appropriate;

e) an indication that an overpack has been used, when appropriate; ~~and~~

DGP-WG/20-WP/9 (see paragraph 3.2.2.8 of DGP-WG/20 Report):

f) the “Q” value rounded up to the first decimal place, if substances are packed in accordance with 3;4.3.3 or 4;1.1.9 e)~~.~~; and

[g) for radioactive material, where a radionuclide value in Table 2-13 is used for an individual nuclide not listed in Table 2-12, the type of radioactive contents and the use of Table 2-13 must be referenced. For example: “Table 2-13 used. Only beta- or gamma- emitting nuclides are known to be present”.]

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Part 7

OPERATOR'S RESPONSIBILITIES

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Chapter 2

STORAGE AND LOADING

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DGP-WG/21-WP/7, Revised (see paragraph 3.2.2.16 of DGP-WG/21 Report):

2.7 REPLACEMENT OF MARKS AND LABELS

When an operator discovers that any of the marks required by 5;2.4.9, 5;2.4.11, 5;2.4.12 or 5;2.4.16 or labels for packages of dangerous goods have become lost, detached or illegible the operator must replace them with appropriate marks or labels in accordance with the information provided on the dangerous goods transport document or other transport document, such as an air waybill, when applicable.

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DGP-WG/21-WP/9 and DGP-WG/21-WP/24 (see paragraph 3.2.2.21 of DGP-WG/21 Report):

2.13 LOADING OF BATTERY-POWERED MOBILITY AIDS CARRIED UNDER THE PROVISIONS OF PART 8

2.13.1 LOADING OF MOBILITY AIDS POWERED BY NON-SPILLABLE WET BATTERIES OR BATTERIES which comply with Special Provision A123 or A199

2.13.1.1 An operator must secure, by use of straps, tie-downs or other restraint devices, a battery-powered mobility aid with installed batteries. The mobility aid, the batteries, electrical cabling and controls must be protected from damage including by the movement of baggage, mail or cargo.

2.13.1.2 An operator must verify that:

a) the passenger has confirmed that the battery is:

1) a non-spillable wet battery that complies with Special Provision A67;

2) a dry battery that complies with Special Provision A123; or

3) a nickel-metal hydride battery that complies with Special Provision A199.

b) the battery terminals are protected from short circuits (e.g. by being enclosed within a battery container);

c) the battery is either:

1) adequately protected against damage by the design of the mobility aid and securely attached to the mobility aid ~~and the~~. The electrical circuits ~~are~~ must be isolated following the manufacturer's instructions; or

2) removed ~~by the user, if the mobility aid is specifically designed to allow it to be,~~ from the mobility aid, following the manufacturer's instructions~~.~~; and

d) a maximum of one non-spillable wet spare battery is carried per passenger.

2.13.1.3 An operator must ensure that any battery(ies) removed from the mobility aid and any spare battery are carried in strong, rigid packagings, protected from short circuit and stowed in the cargo compartment.

2.13.1.4 The operator must inform the pilot-in-command of the location of any mobility aids with installed batteries, removed batteries and spare batteries.

2.13.2 LOADING OF MOBILITY AIDS POWERED BY SPILLABLE BATTERIES

2.13.2.1 An operator must secure, by use of straps, tie-downs or other restraint devices, a battery-powered mobility aid with installed batteries. The mobility aid, the batteries, electrical cabling and controls must be protected from damage including by the movement of baggage, mail or cargo.

2.13.2.2 An operator must verify that:

a) the battery terminals are protected from short circuits (e.g. by being enclosed within a battery container);

b) the battery is fitted, where feasible, with spill resistant-vent caps; and

c) the battery is either:

1) adequately protected against damage by the design of the mobility aid and securely attached to the mobility aid ~~and the~~. The electrical circuits ~~are~~ must be isolated following the manufacturer's instructions; or

2) removed from the mobility aid, following the manufacturer's instructions ~~when required by 2.13.2.3~~.

2.13.2.3 An operator must load, stow, secure, and unload a spillable battery-powered mobility aid in an upright position. If the mobility aid cannot be loaded, stowed, secured and unloaded always in an upright position or if the mobility aid does not adequately protect the battery, the operator must remove the batteries and carry them in strong, rigid packagings, as follows:

a) packagings must be leak-tight, impervious to battery fluid and be protected against being overturned by securing them to pallets or by securing them in cargo compartments using appropriate means of securement;

b) batteries must be protected against short circuits, secured upright in these packagings and surrounded by compatible absorbent material sufficient to absorb their total liquid contents; and

c) these packagings must be marked “Battery, wet, with wheelchair” or “Battery, wet, with mobility aid” and be labelled with a Corrosive” label (Figure 5-24) and with package orientation labels (Figure 5-29) as required by 5;3.

2.13.2.4 The operator must inform the pilot-in-command of the location of any mobility aids with installed spillable batteries and removed batteries.

2.13.3 LOADING OF MOBILITY AIDS POWERED BY LITHIUM ION BATTERIES

2.13.3.1 An operator must secure, by use of straps, tie-downs or other restraint devices, a battery-powered mobility aid with installed batteries. The mobility aid, the batteries, electrical cabling and controls must be protected from damage including by the movement of baggage, mail or cargo.

2.13.3.2 An operator must verify that:

a) the battery terminals are protected from short circuits (e.g. by being enclosed within a battery container);

b) the battery is either:

1) adequately protected against damage by the design of the mobility aid and securely attached to the mobility aid ~~and the~~. The electrical circuits ~~are~~ must be isolated following the manufacturer's instructions; or

2) removed by the user, if the mobility aid is specifically designed to allow it to be, following the manufacturer's instructions; and

c) the removed battery does not exceed 300 Wh and that its spare battery does not exceed 300 Wh or its two spare batteries do not exceed 160 Wh each.

2.13.3.3 An operator must ensure that any battery removed from the mobility aid and any spare batteries are carried in the cabin and protected from damage (e.g., by placing each battery in a protective pouch) and the battery terminals protected from short circuit (by insulating the terminals, e.g. by taping over exposed terminals).

2.13.3.4 The operator must inform the pilot-in-command of the location of any mobility aids with installed lithium ion batteries, removed batteries and spare batteries.

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DGP-WG/21-WP/36 (see paragraph 3.2.2.17 of DGP-WG/21 Report):

Chapter 4

PROVISION OF INFORMATION

4.1 INFORMATION TO THE PILOT-IN-COMMAND

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Table 7-9. Dangerous goods not required to appear in the information to the pilot-in-command

UN Number	*Item*	*Reference*
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UN 3091	**Lithium metal batteries contained in equipment** (including lithium alloy batteries) when meeting the requirements of Packing Instruction 970, Section II	Packing Instruction 970, Section II
UN 3091	**Lithium metal batteries packed with equipment** (including lithium alloy batteries) when meeting the requirements of Packing Instruction 969, Section II	Packing Instruction 969, Section II
UN 3164	**Articles, pressurized, hydraulic** containing non-flammable gas when meeting the requirements of Packing Instruction 208 a)	Packing Instruction 208, a)
UN 3164	**Articles, pressurized, pneumatic** containing non-flammable gas when meeting the requirements of Packing Instruction 208 a)	Packing Instruction 208, a)
UN 3245	**Genetically modified micro-organisms**	Packing Instruction 959
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Part 8

PROVISIONS CONCERNING PASSENGERS AND CREW

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Chapter 1

PROVISIONS FOR DANGEROUS GOODS CARRIED BY PASSENGERS OR CREW

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Table 8-1. Provisions for dangerous goods carried by passengers or crew

Dangerous Goods	*Location*		*Approval of the operator(s) is required*	*Restrictions*
	Checked baggage	*Carry-on baggage*		
Batteries				
. . .				
DGP-WG/21-WP/9 and DGP-WG/21-WP/24 (see paragraph 3.2.2.21 of DGP-WG/21 Report):				
4) Mobility aids (e.g. wheelchairs) powered by: – spillable batteries; – non-spillable wet batteries; – dry batteries; – nickel-metal hydride batteries; or – lithium ion batteries	Yes	(see ~~e~~i))	Yes	a) 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); b) the 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); c) the battery is either: i) adequately protected against damage by the design of the mobility aid and securely attached to the mobility aid. The electrical circuits must be isolated following the manufacturer's instructions; or ii) removed from the mobility aid, following the manufacturer's instructions; d) the battery terminals must be protected from short circuits (e.g. by being enclosed in a battery container); e) all removed and spare batteries must be protected from damage (e.g. by placing each battery in a strong, rigid packaging); f) in the case of a spillable battery, if the mobility aid cannot be loaded, stowed, secured and unloaded always in an upright position, the battery must be removed and carried in a strong, rigid packaging; ~~e~~g) in the case of a dry battery or nickel-metal hydride battery,

Dangerous Goods	*Location*		*Approval of the operator(s) is required*	*Restrictions*
	Checked baggage	*Carry-on baggage*		
				each battery must comply with Special Provision A123 or A199, respectively; ~~d~~h) in the case of a non-spillable wet battery: i) each battery must comply with Special Provision A67; and ii) a maximum of one spare battery may be carried per passenger; ~~e~~i) in the case of a lithium ion battery: i) each battery must be of a type which meets the requirements of each test in the *UN Manual of Tests and Criteria*, Part III, subsection 38.3; ii) ~~when the mobility aid does not provide adequate protection to the battery:~~ ~~— the battery must be removed in accordance with the manufacturer's instructions;~~ ~~— the battery must not exceed 300 Wh;~~ ~~— the battery terminals must be protected from short circuit (by insulating the terminals, e.g. by taping over exposed terminals);~~ ~~— the battery must be protected from damage (e.g. by placing each battery in a protective pouch); and~~ ~~— the battery must be carried in the cabin;~~if the battery is removed: — the battery must not exceed 300 Wh; and — the battery must be carried in the cabin; iii) a maximum of one spare battery not exceeding 300 Wh or two spare batteries not exceeding 160 Wh each may be carried. Spare batteries must be carried in the cabin.

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