



NOTE DE TRAVAIL

GROUPES D'EXPERTS SUR LES MARCHANDISES DANGEREUSES (DGP)

TRENTIÈME RÉUNION

Montréal, 6 - 10 octobre 2025

Point 1 : Harmonisation des dispositions de l'OACI sur les marchandises dangereuses avec les recommandations de l'ONU relatives au transport des marchandises dangereuses (REC-A-DGS-2027)

1.2 : Élaboration, s'il y a lieu, de propositions d'amendement des *Instructions techniques pour la sécurité du transport aérien des marchandises dangereuses* (Doc 9284) à introduire dans l'édition de 2027-2028

INSTRUCTION D'EMBALLAGE À UTILISER POUR LES OBJETS CLASSÉS EN TANT QU'« OBJETS CONTENANT DES MARCHANDISES DANGEREUSES, N.S.A. »

(Note présentée par P. Tatin)

RÉSUMÉ

La présente note de travail invite le Groupe d'experts à envisager de préciser l'instruction d'emballage applicable aux différentes rubriques correspondant aux objets contenant des marchandises dangereuses, numéros ONU 3537 à 3548.

Suite à donner par le DGP : Le DGP est invité à :

- a) convenir de l'une des deux options proposées à l'appendice A pour remédier aux difficultés qui se posent pour déterminer quelle est l'instruction d'emballage applicable aux objets affectés aux numéros ONU 3537 à 3548 ;
- b) examiner si les approbations et les dérogations relatives aux rubriques affectées aux numéros ONU 3537 à 3548 devraient être regroupées sous une seule et même approbation ou dérogation ;
- c) examiner si les dispositions des § 6.2 et 6.5 du chapitre introductif de la partie 2 sont contradictoires, comme le souligne le paragraphe 3.2 de la présente note de travail.

* Seuls le résumé et l'appendice A sont traduits.

1. INTRODUCTION

1.1 This working paper outlines overlaps between various parts of the Technical Instructions and the Supplement with respect to articles containing dangerous goods, which cause confusion when considering which packing instruction and/or conditions for issuing approvals apply. It also outlines overlaps between approval provisions for these articles. The overlaps are described below and identified in Appendix B to this working paper.

2. MULTIPLE PACKGING INSTRUCTIONS

2.1 Part 2;0.6 of the Technical Instructions sets out the classification criteria for articles containing dangerous goods as a residue or as an integral element of the machinery or apparatus as either UN 3363 or one of the entries for articles containing dangerous goods (UN numbers 3537 through 3548) in accordance with 2;0.6.1 to 2;0.6.6. All the entries assigned to UN numbers 3537 through 3548 are forbidden for transport on both passenger and cargo aircraft under normal circumstances, but some are permitted through approvals or under specific conditions. This leads to potentially three packing instructions being applicable to a single entry, i.e.:

- a) A specific packing instruction for each class of articles is assigned to entries in the Supplement that can be transported through an approval issued by the States of Origin and the Operator in accordance with Special Provision A2.
- b) Packing Instruction 910 is applicable to some of the articles that are permitted to contain pre-production prototype or low production run lithium or sodium ion cells or batteries that have not been UN design-type tested through an approval issued by the States of Origin and the Operator in accordance with Special Provision A88
- c) Packing Instruction 222 and Packing Instruction 975 are applicable to UN Nos. 3538 and 3548, respectively, when articles identified as forbidden under normal circumstances through Table 3-1 are permitted on both passenger and cargo aircraft under certain circumstances in accordance with Special Provisions A224 for UN 3538 and Special Provision A225 for UN 3548. They may also be transported under an approval in accordance with Special Provision A2 in accordance with Packing Instruction 221 for UN 3538 and Packing Instruction 973 for UN 3548.

The packing instructions and special provisions assigned to all the entries for dangerous goods contained in articles, along with the basic classification criteria for them, are shown in Appendix A to this working paper.

2.2 Although all dangerous goods that are integrated into a machine or device that are necessary for its operation and cannot be removed for transport must be notified on the dangerous goods transport document (shipper's declaration) with reference to Part 5;4.1.5.1 c), the machine or device should be packaged in accordance with one and only one packing instruction that aligns with the requirements associated with the predominant hazard of the dangerous goods.

3. MULTIPLE APPROVAL/EXEMPTION PROVISIONS

3.1 Entries assigned to UN numbers 3537 through 3548 may be subject to more than one approval or exemption provision, i.e. Special Provision A2 to transport articles permitted on cargo aircraft through an approval granted by the States of Origin and the Operator, Special Provision A88 to transport

articles containing pre-production prototype or low production run sodium ion or lithium cells or batteries through an approval granted by the States of Origin and the Operator, and Special Provision A333, where the articles can only be transported under an exemption. It is suggested that all should be grouped into a single approval or exemption.

3.2 In also suggested that Part 2;0.6.2, which states that “the requirements of Special Provision A88 apply” and Part 2;0.6.5 which states that “if dangerous goods classified as Class 9 are contained within the article, all other dangerous goods present in the article must be considered to present a higher hazard” are contradictory.

4. ACTION BY THE DGP

4.1 The DGP is invited to:

- a) agree to one of the two options proposed in Appendix A to address challenges with determining which packing instruction applies to articles assigned to UN numbers 3537 through 3548;
- b) consider whether approvals and exemptions related to entries assigned to UN numbers 3537 through 3548 should be grouped into a single approval or exemption; and
- c) consider whether the provisions in Parts 2;0.6.2 and 2;0.6.5 are contradictory, as highlighted in paragraph 3.2 of this working paper.

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APPENDICE A

PROPOSITION D'AMENDEMENT DES INSTRUCTIONS TECHNIQUES

OPTION 1 : Modifier la partie 2, chapitre introductif, § 6.2

Partie 2

CLASSIFICATION DES MARCHANDISES DANGEREUSES

CHAPITRE INTRODUCTIF

(...)

6. CLASSIFICATION COMME OBJETS CONTENANT DES MARCHANDISES DANGEREUSES N.S.A.

(...)

6.2 Ces objets peuvent en outre contenir des piles ou batteries. Les piles et batteries au lithium qui font partie intégrante d'un objet doivent être conformes à un type dont il a été démontré qu'il satisfait aux prescriptions en matière d'épreuves du *Manuel d'épreuves et de critères* de l'ONU, troisième partie, sous-section 38.3. Pour les objets contenant des prototypes de pré-production de piles ou batteries au lithium transportés pour être éprouvés, ou pour les objets contenant des piles ou batteries de séries de production d'au plus 100 piles ou batteries, les prescriptions de la disposition particulière A88 s'appliquent. Indépendamment de l'instruction d'emballage 910, il faut donner la priorité à l'instruction d'emballage appropriée affectée à l'objet dans le tableau S-3-1 du Supplément.

(...)

OPTION 2 : Modifier la disposition particulière A88

Partie 3

LISTE DES MARCHANDISES DANGEREUSES, DISPOSITIONS PARTICULIÈRES ET QUANTITÉS LIMITÉES ET EXEMPTÉES

(...)

Chapitre 3

(...)

DISPOSITIONS PARTICULIÈRES

(...)

Tableau 3-2. Dispositions particulières

(...)

A88 Lorsqu'elles sont transportées à des fins d'épreuve ou fabriquées en petits lots (c.-à-d. lorsque le lot de production annuel compte un maximum de 100 piles ou batteries au lithium, ou piles ou batteries au sodium ionique), les piles ou batteries au lithium, ou piles ou batteries au sodium ionique, prototypes avant production en série qui n'ont pas été testées conformément aux prescriptions des épreuves de la sous-section 38.3 de la partie III du *Manuel d'épreuves et de critères* de l'ONU peuvent être transportées à bord d'aéronefs cargos si l'autorité compétente de l'État d'origine et de l'État de l'exploitant l'autorise et si les prescriptions ~~de l'instruction d'emballage 910 du~~

Supplément de l'instruction d'emballage applicable sont satisfaites. Les instructions d'emballage suivantes s'appliquent :

- Instruction d'emballage 910 du Supplément pour les n^{os} ONU 3090, 3091, 3480, 3481, 3551 et 3552 :
- Instructions d'emballage affectées aux rubriques du tableau S-3-1 du Supplément pour les n^{os} ONU 3537 à 3548.

(...)

APPENDICE B

DANGEROUS GOODS CONTAINED IN ARTICLES/APPARATUS/MACHINERY

UN No.	Name	Special provisions (those higher than A299 are contained in the Supplement only)	Criteria	Table 3-1		Table S-3-1	
				Passenger and cargo aircraft	Cargo aircraft only	Passenger and cargo aircraft	Cargo aircraft only
3363	Dangerous goods in apparatus or Dangerous goods in articles or Dangerous goods in machinery	A48 A107 A332	Must meet the provisions of Packing Instruction 962 (maximum 0.5 L/1 kg/0.5 for gas (Division 2.2 only) Through A107, can exceed these limits if permitted in limited quantities, within limits established by UN Model Regulations, through an approval of the States of Origin and Operator	See 962	See 962	See 962	See 962

UN No.	Name	Special provisions (those higher than A299 are contained in the Supplement only)	Criteria	Table 3-1		Table S-3-1	
				Passenger and cargo aircraft	Cargo aircraft only	Passenger and cargo aircraft	Cargo aircraft only
3537	Articles containing flammable gas, n.o.s.*	A2 A88	In accordance with 2;0.6.1 to 2;0.6.6 May contain lithium batteries meeting UN 38.3 testing. Exception from UN 38.3 testing for pre-production prototypes or production runs 100 or less cells or batteries if in accordance with A88	Forbidden	Forbidden	Forbidden	221, 910 221 under A2 approval 910 under A88 approval
3538	Articles containing non-flammable, non-toxic gas, n.o.s.*	A2 A88 A225 A333 A335	May contain lithium cells or batteries complying with Section II of Packing Instruction 967 or 970	Forbidden except through application of A225 packed in accordance with Packing Instruction 222	Forbidden except through application of A225 packed in accordance with Packing Instruction 222	Forbidden except through application of A225 packed in accordance with Packing Instruction 222	221, 222, 910: 221 under A2 approval 222 through application of A225 (no approval needed) 910 under A88 approval In some cases approval not permitted, only exemption (A333)
3539	Articles containing toxic gas, n.o.s.*	A333		Forbidden	Forbidden	Forbidden	Forbidden

UN No.	Name	Special provisions (those higher than A299 are contained in the Supplement only)	Criteria	Table 3-1		Table S-3-1	
				Passenger and cargo aircraft	Cargo aircraft only	Passenger and cargo aircraft	Cargo aircraft only
3540	Articles containing flammable liquid, n.o.s.*	A2 A88 A333		Forbidden	Forbidden	Forbidden	378, 910 378 under A2 approval 910 under A88 approval In some cases approval not permitted, only exemption (A333)
3541	Articles containing flammable solid, n.o.s.*	A2 A88 A333		Forbidden	Forbidden	Forbidden	400, 910 400 under A2 approval 910 under A88 approval In some cases approval not permitted, only exemption (A333)
3542	Articles containing a substance liable to spontaneous combustion, n.o.s.*	A333		Forbidden	Forbidden	Forbidden	Can only be transported under an exemption (A333)
3543	Articles containing a substance which emits flammable gas in contact with water, n.o.s.*	A333		Forbidden	Forbidden	Forbidden	Can only be transported under an exemption (A333)
3544	Articles containing oxidizing substance, n.o.s.*	A333		Forbidden	Forbidden	Forbidden	Can only be transported under an exemption (A333)
3545	Articles containing organic peroxide, n.o.s.*	A333		Forbidden	Forbidden	Forbidden	Can only be transported under an exemption (A333)

UN No.	Name	Special provisions (those higher than A299 are contained in the Supplement only)	Criteria	Table 3-1		Table S-3-1	
				Passenger and cargo aircraft	Cargo aircraft only	Passenger and cargo aircraft	Cargo aircraft only
3546	Articles containing toxic substance, n.o.s.*	A2 A88		Forbidden	Forbidden	Forbidden	600, 910 600 under A2 approval 910 under A88 approval
3547	Articles containing corrosive substance, n.o.s.*	A2 A88		Forbidden	Forbidden	Forbidden	877, 910 877 under A2 approval 910 under A88 approval
3548	Articles containing miscellaneous dangerous goods, n.o.s.*	A2 A88 A224	May contain lithium cells or batteries complying with Section II of Packing Instruction 967 or 970	Forbidden except through application of A224 packed in accordance with Packing Instruction 975	Forbidden except through application of A224 packed in accordance with Packing Instruction 975	Forbidden except through application of A224 packed in accordance with Packing Instruction 975	973, 910, 975 973 under A2 approval 910 under A88 approval 975 through application of A224 (no approval needed)