



危险物品专家组 (DGP)

第三十次会议

2025 年 10 月 6 日至 10 日，蒙特利尔

议程项目 1: 国际民航组织危险物品的规定与联合国《关于危险货物运输的建议书》(REC-A-DGS-2027) 的协调统一

1.2: 如有必要，拟定对《危险物品安全航空运输技术细则》(Doc 9284 号文件) 的修订提案，以便纳入 2027 年 — 2028 年版

类别为“未另作规定的含有危险品的物品”使用的包装说明

(由 P. Tatin 提交)

摘要

本工作文件请专家组考虑澄清，对于未另作规定的含有危险品的物品，划为联合国编号 UN 3537 到 3548 的各个条目应适用哪个包装说明。

危险物品专家组的行动：请危险物品专家组：

- a) 同意附录 A 提出的两个选项之一，以解决在确定划为联合国编号 UN 3537 至 3548 的物品适用哪个包装说明方面的难题；
- b) 考虑是否应将划为联合国编号 UN 3537 至 3548 的条目的相关批准和豁免合并为一项批准或豁免；和
- c) 考虑第2 部分引言章 6.2和6.5 节的规定是否相互矛盾，本工作文件第3.2段突出说明了这一点。

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

* 仅提供了摘要和附录的翻译。

overlaps between approval provisions for these articles. The overlaps are described below and identified in Appendix B to this working paper.

2. **MULTIPLE PACKING 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.

— — — — —

附录 A

《技术细则》的拟议修订

选项 1：修订 2;0.6.2(第 2 部分引言章 6.2 节)

第 2 部分

危险物品的分类

引言章

.....

6. 未另作规定的含有危险品的物品的分类

.....

6.2 这种物品也可含有电池芯或电池。属物品组成部分的锂电池芯和电池必须是经验证符合联合国《试验和标准手册》第 III 部分第 38.3 小节试验要求的类型。对于为试验而运输的含有预生产原型锂电池芯或电池的物品，或对于在不超过 100 个电池芯或电池的生产批量中制造的含有锂电池芯或电池的物品，应适用特殊规定 A88 的要求。无论包装说明 910 如何规定，必须优先采用《补篇》的表 S-3-1 中为该物品指定的适当包装说明。

.....

选项 2：修订特殊规定 A88

第 3 部分

危险物品表，特殊规定和限制数量与例外数量

.....

第 3 章

特殊规定

.....

表 3-2 特殊规定

.....

A88

出于试验目的予以运输的生产之前的锂电池芯或电池或钠离子电池芯或电池原型或低产量（即年度生产量不超过 100 个锂电池芯或电池或钠离子电池芯或电池）的锂电池芯或电池或钠离子电池芯或电池，没有按联合国《试验和标准手册》的第 III 部分 38.3 节的要求进行过测试的，如果经始发国和运营人所属国有关当局批准并且满足补篇的包装说明 910 中适用包装说明的要求，可以在货机上运输。应适用以下包装说明：

- 《补篇》中用于 UN3090, UN 3091, UN 3480, UN 3481, UN 3551 和 UN 3552 的包装说明 910；和
- 《补篇》的表 S-3-1 中指定给 UN 3537 到 UN3548 条目的包装说明。

.....

附录 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
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

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
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
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)

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
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)
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)