



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
MEETING OF THE WORKING GROUP OF THE WHOLE**

Montréal, 15 to 19 October 2012

Agenda Item 2: Development of recommendations for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284)* for incorporation in the 2015-2016 Edition

2.3: Part 3 — Dangerous Goods List, Special Provisions and Limited and Excepted Quantities

2.4: Part 4 — Packing Instructions

UN3242 — AZODICARBONAMIDE

(Presented by Q. Xu)

SUMMARY

This paper proposes to amend Table 3-1 for UN3242 — **Azodicarbonamide** to align with UN Model Regulation and IMO IMDG CODE in principle so that **Azodicarbonamide** can be transported by air.

Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 **Azodicarbonamide** (UN 3242) formulations may be self-reactive substances and listed in Table 2-6. They are classified as self-reactive substance type C or type D depending on their dangerous properties and four UN numbers are available. UN3224 and UN3226 could be chosen when no temperature control is needed and self-accelerating decomposition temperature (SADT) of the substance is above 55°C.

1.2 According to Special Provisions A60, UN 3242 only applies to the technically pure substance or to formulations derived from it having an SADT higher than 75°C, and therefore does not apply to formulations which are self-reactive substances.

1.3 Regarding UN3224 and UN3226 in Table 3-1, the azodicarbonamide formulations classified as these entries can be transported by passenger and cargo aircraft and the maximum net quantity per package is 5 kg and 10 kg respectively. The applicable packing instruction is 459. However, UN 3242 is forbidden on both passenger and cargo aircraft.

1.4 Industry is confused with why the azodicarbonamide formulations with higher SADT (i.e. higher safety level) are forbidden by air while those with a lower SADT can be transported by both passenger and cargo aircraft. In fact, the substances classified as UN 3242 can be transported in the UN Model Regulation and the IMO IMDG CODE. Moreover, the limited quantity of UN 3242 specified by the UN Model Regulation is 1kg which is higher than the quantities permitted for UN 3224 and UN 3226, which are 100 g and 500 g respectively.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to amend Table 3-1 so that UN 3242 is permitted for transport when azodicarbonamide formulations have an SADT above 75°C. The corresponding packing instruction and the maximum net quantity per package can be referred to the related part of the Self-reactive solid type E in Packing Instruction 459. The proposed amendments are shown in the appendix to this working paper.

APPENDIX

PROPOSED AMENDMENT TO THE TECHNICAL INSTRUCTIONS

Part 3

DANGEROUS GOODS LIST,
SPECIAL PROVISIONS AND
LIMITED AND EXCEPTED QUANTITIES

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Chapter 2

ARRANGEMENT OF THE
DANGEROUS GOODS LIST (TABLE 3-1)

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Table 3-1. Dangerous Goods List

Name	UN No.	Class or division	Subsidiary risk	Labels	State variations	Special provisions	UN packing group	Excepted quantity	Passenger aircraft		Cargo aircraft	
									Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4	5	6	7	8	9	10	11	12	13
Azodicarbo namide	3242	4.1		Corrosive		A60	II		FORB 459	IDDEN 10 kg	FORB 459	IDDEN 25 kg

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Part 4

PACKING INSTRUCTIONS

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COMBINATION PACKAGINGS							SINGLE PACKAGINGS
UN number and proper shipping name	Inner packaging (see 6.3.2)	Inner packaging quantity (per receptacle) — passenger	Total quantity per package — passenger	Inner packaging quantity (per receptacle) — cargo	Total quantity per package — cargo		
Liquids							
UN 3223	Self-reactive liquid type C	Plastics	0.5 L	5 L	1.0 L	10 L	No
UN 3225	Self-reactive liquid type D	Plastics	0.5 L	5 L	1.0 L	10 L	
UN 3227	Self-reactive liquid type E	Plastics	1.0 L	10 L	2.5 L	25 L	
UN 3229	Self-reactive liquid type F	Plastics	1.0 L	10 L	2.5 L	25 L	
Solids							
UN 3224	Self-reactive solid type C	Plastics	0.5 kg	5 kg	1.0 kg	10 kg	No
		Plastic bag	0.5 kg	5 kg	1.0 kg	10 kg	
UN 3226	Self-reactive solid type D	Plastics	0.5 kg	5 kg	1.0 kg	10 kg	
		Plastic bag	0.5 kg	5 kg	1.0 kg	10 kg	
UN 3228	Self-reactive solid type E	Plastics	1.0 kg	10 kg	2.5 kg	25 kg	
		Plastic bag	1.0 kg	10 kg	2.5 kg	25 kg	
UN 3230	Self-reactive solid type F	Plastics	1.0 kg	10 kg	2.5 kg	25 kg	
		Plastic bag	1.0 kg	10 kg	2.5 kg	25 kg	
<u>UN 3242 Azodicarbonamide</u>		<u>Plastics</u>	<u>1.0 kg</u>	<u>10 kg</u>	<u>2.5 kg</u>	<u>25 kg</u>	
		<u>Plastic bag</u>	<u>1.0 kg</u>	<u>10 kg</u>	<u>2.5 kg</u>	<u>25 kg</u>	

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