





Workshop on Dangerous goods

04 - The list of Dangerous Goods



This project is funded by the European Union and implemented by the European Union Aviation Safety Agency (EASA)

Your safety is our mission.

An Agency of the European Union

1

04 - The list of Dangerous Goods

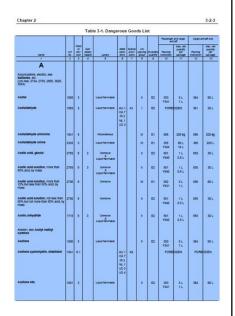
See TIs part 3 - "blue pages"

The Dangerous Goods List lists the dangerous goods most commonly carried but is not exhaustive.

Sorted alphabetically.

It is intended that the list cover, as far as practicable, all dangerous substances of commercial importance.

Where an article or substance is specifically listed by name in the Dangerous Goods List, it must be transported in accordance with the provisions in the list.



EASA Workshop on Dangerous goods

The list also includes a number of specific articles and substances whose transport by air is forbidden.

- 1) When the word "Forbidden" appears across columns 2 and 3, it means that the dangerous goods covered by that particular entry is forbidden on aircraft under any circumstances.
- 2) Where an article or substance may not be carried on a passenger aircraft, the word "FORBIDDEN" is written across columns 10 and 11.
- 3) Where an article or substance may not be carried on any aircraft, the word "FORBIDDEN" is written across columns 12 and 13 as well as across columns 10 and 11.

									Passenger alro	and cargo traft	Cargo ali	craft only
Name	UN No.	Class or divi- sion	Sub- sidlary hazard	Labels	State varia- tions	Special provi- sions		Excepted quantity	Packing Instruction	Max. net quantity per package	Packing Instruction	Max. net quantity per package
1	2	3	4	5	0	7	8	6	10	11	12	13
Aluminium dross, wet or hot 1)	FORE	IDDE										
Aluminium hydride	2463	4.3		Danger If wet			1	E0 2	FORB	DDEN	487	15 kg
Aluminium nitrate	1438	5.1		Oxidizer			Ш	E1	559 Y546	25 kg 10 kg	563	100 kg
Aluminium phosphide	1397	4.3	6.1	Danger If wet & Toxic			1	E0	FORB	DDEN	487	15 kg
Aluminium phosphide pesticide	3048	6.1				A128		E0 3	FORB	DDEN	FORB	DDEN

EASA Workshop on Dangerous goods

3

04 - The list of Dangerous Goods

For these two cases, the article or substance may be transported...

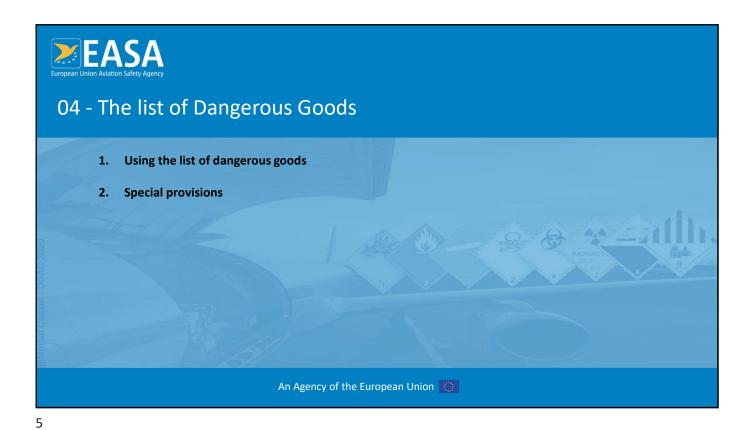
- with a specific exemption;
- or with the prior approval of the appropriate authorities when allowed by the <u>special provisions</u> ("A1" for pax, "A2" for pax and CAO).



EASA Workshop on Dangerous goods

4

Δ



Description Adjusted Safety Agency

O4 - The list of Dangerous Goods

1. Using the list of dangerous goods
2. Special provisions

An Agency of the European Union

01 – Using the list of dangerous goods

									Passenger airc	and cargo craft	Cargo air	craft only
Name	UN No.	Class or divi- sion	Sub- sidiary hazard	Labels	State varia- tions	Special provi- sions		Excepted quantity	Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
4	2	3	4	5	6	7	8	9	10	11	12	13
Magnesium powder	1418	4.3	4.2	Danger if wet & Spontaneous combustion		А3	 	E0 E2 E1	FORB 483 486	DDEN 15 kg 25 kg	488 490 491	15 kg 50 kg 100 kg

Propper shipping name (boldface)

Other names (lightface) with a cross reference

Names with additional considerations (lightface)

Names of articles forbidden for carriage by air (lightface)

Bisulphates, aqueous solution

Accumulators, electric, see Batteries, etc.

Alcoholic beverages containing more than 24% but not more than 70% alcohol by volume

Aluminium dross, wet or hot

FORBIDDE

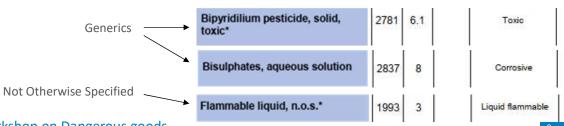
EASA Workshop on Dangerous goods

04 - The list of Dangerous Goods

01 – Using the list of dangerous goods

									Passenger airc	and cargo craft	Cargo air	craft only
Name	UN No.	Class or divi- sion	Sub- sidiary hazard	Labels	State varia- tions	ATTENDED TO	group	Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet & Spontaneous combustion		A3		E0 E2 E1	FORB 483 486	DDEN 15 kg 25 kg	488 490 491	15 kg 50 kg 100 kg

Since the DG List cannot be exhaustive, it also includes various generic or "not otherwise specified" entries to assist in the transport of those commodities not specifically listed by name, e.g.



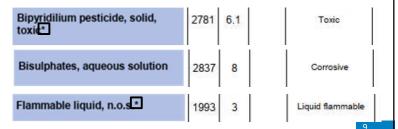
EASA Workshop on Dangerous goods

01 – Using the list of dangerous goods

									Passenger airc	and cargo craft	Cargo air	craft only
Name	UN No.	Class or divi- sion	Sub- sidiary hazard	Labels	State varia- tions	Special provi- sions		Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet & Spontaneous		А3	1 11	E0 E2	483	DDEN 15 kg	488 490	15 kg 50 kg
				combustion			m	E1	486	25 kg	491	100 kg

* >> + Technical name or description

e.g. « UN 1993 - Flammable liquid, n.o.s. (contains xylene and benzene) »



EASA Workshop on Dangerous goods

9

04 - The list of Dangerous Goods

01 – Using the list of dangerous goods

n.o.s. proper shipping names

The technical name must be a recognized chemical or biological name or other name currently used. Trade names must not be used for this purpose, e.g.





Environmentally hazardous substance, liquid, n.o.s.*

3082 9

Miscellaneous

Aerohydraulic 520

Environmentally hazardous substance, liquid, n.o.s. (Aerohydraulic 520)



Environmentally hazardous substance, liquid, n.o.s. (Distillates (petroleum), hydrotreated middle)



>> see the related Safety Data Sheet (SDS)

EASA Workshop on Dangerous goods

01 – Using the list of dangerous goods

									Passenger airc	and cargo craft	Cargo air	craft only
Name	UN No.	Class or divi- sion	Sub- sidiary hazard	Labels	State varia- tions	Special provi- sions		Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet		А3	i i	E0	FORB	DDEN	488	15 kg
				Spontaneous combustion			II III	E2 E1	483 486	15 kg 25 kg	490 491	50 kg 100 kg

"UN1418"

This column contains the serial number assigned to the article or substance under the United Nations classification system.

Some entries in the list have not been assigned such a number and for these, a temporary identification number (ID) in the 8000 series has been allocated and is indicated where appropriate:



EASA Workshop on Dangerous goods

11

11

04 - The list of Dangerous Goods

01 – Using the list of dangerous goods

									Passenger airc	and cargo craft	Cargo air	craft only
Name	UN No.	Class or divi- sion	Sub- sidiary hazard	Labels	State varia- tions	Special provi- sions		Excepted quantity	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
Magne <mark>si</mark> um powder	1418	4.3	4.2	Danger if wet & Spontaneous combustion		А3	1 11 111	E0 E2 E1	FORB 483 486	DDEN 15 kg 25 kg	488 490 491	15 kg 50 kg 100 kg

When the word "Forbidden" appears across this column and column 3...

Aluminium dross, wet or hot FORBIDDEN

... it means that the dangerous goods covered by that particular entry meet the description of dangerous goods forbidden on aircraft under any circumstances.

TIs Part 1 chapter 2.1

EASA Workshop on Dangerous goods

01 – Using the list of dangerous goods

									Passenger airc	and cargo craft	Cargo air	craft only
Name	UN No.	Class or divi- sion	Sub- sidiary hazard	Labels	State varia- tions	Special provi- sions	UN packing group	Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet		А3	1	E0	FORB	DDEN	488	15 kg
				Spontaneous combustion			 	E2 E1	483 486	15 kg 25 kg	490 491	50 kg 100 kg

This column contains the class or division of the primary hazard...



... and, in the case of Class 1, the compatibility group assigned to the article.





EASA Workshop on Dangerous goods

13

13

04 - The list of Dangerous Goods

01 – Using the list of dangerous goods

									Passenger airc	and cargo craft	Cargo air	craft only
Name	UN No.	Class or divi- sion	Sub- sidiary hazard	Labels	State varia- tions	Special provi- sions		Excepted quantity	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
Magne <mark>si</mark> um powder	1418	4.3	4.2	Danger if wet & Spontaneous combustion		A3		E0 E2 E1	FORB 483 486	DDEN 15 kg 25 kg	488 490 491	15 kg 50 kg 100 kg

This column contains (if needed) the class or division number of any important subsidiary hazards which have been identified by applying the classification process.



If no subsidiary hazard is associated to the article or substance, this column remains empty:

Cartridges for weapons, inert projectile †	0417	1.3C		
--	------	------	--	--

EASA Workshop on Dangerous goods

01 – Using the list of dangerous goods

									Passenger airc	and cargo craft	Cargo air	craft only
Name	UN No.	Class or divi- sion	Sub- sidiary hazard	Labels	State varia- tions	Special provi-		Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet		А3	1	E0	FORB	DDEN	488	15 kg
				Spontaneous combustion			111	E2 E1	483 486	15 kg 25 kg	490 491	50 kg 100 kg

This column specifies the class hazard label followed by the subsidiary hazard label(s) to be applied to each outside packaging and overpack.



EASA Workshop on Dangerous goods

15

15

04 - The list of Dangerous Goods

01 – Using the list of dangerous goods

									Passenger airc	and cargo craft	Cargo air	craft only
Name	UN No.	Class or divi- sion	Sub- sidiary hazard	Labels	State varia- tions	Special provi- sions		Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet & Spontaneous combustion		A3	1 11	E0 E2 E1	FORB 483 486	DDEN 15 kg 25 kg	488 490 491	15 kg 50 kg 100 kg

For magnetized material the required handling label is also shown.

In the instances where no label is required the word "None" will be mentioned.

E.g. Biological substances, Category B the dedicated mark is however mandatory.

Magnetized material	2807	9	Magnetic	MAGNETIZED MATERIAL
Genetically modified micro- organisms	3245	9	None	Ø
Biological substance, Category B	3373	6.2	None	UN 3373

EASA Workshop on Dangerous goods

4.0

01 – Using the list of dangerous goods

Name			or Sub- divi- sidiary	Labels	State varia-	Special provisions			Passenger and cargo aircraft		Cargo aircraft only	
	UN No.	Class or divi- sion						Excepted quantity	Packing per instruction packa	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
Magnesium powder	1418	4.3	4.2	Danger if wet &		А3	1	E0	FORB	DDEN	488 490	15 kg
				Spontaneous combustion			111	E2 E1	486	15 kg 25 kg	490	50 kg 100 kg

presentation 02 - Limitations
chapter 2 of this module
presentation 03 - Classification
presentation 02 - Limitations

EASA Workshop on Dangerous goods

17

17

04 - The list of Dangerous Goods

01 – Using the list of dangerous goods

Name	UN div							Passenger airc	and cargo raft	Cargo aircraft only		
		Class or divi- sion	Sub- sidiary hazard	Labels	State varia- tions	Special provi- sions	UN packing group	Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet & Spontaneous combustion		A3	1 11	E0 E2 E1	FORB 483 486	DDEN 15 kg 25 kg	488 490 491	15 kg 50 kg 100 kg

This column refers to the relevant packing instructions listed in TIs Part 4 for transport of the article or substance on a passenger aircraft or a cargo one.



>> See presentation 05 – Packaging, markings and labelling

EASA Workshop on Dangerous goods

01 – Using the list of dangerous goods

Name		Class or Sub- UN divi- sidiary No. sion hazard		fiary	State varia- tions				Passenger and cargo aircraft		Cargo aircraft only	
			Sub- sidiary			Special provi- sions		Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet &		А3	i ii	E0 E2	FORB	DDEN 15 kg	488 490	15 kg 50 kg
				combustion			111	E1	486	25 kg	491	100 kg

For some entries an alternative packing instruction is shown prefixed with the letter "Y". Such packing instructions are for <u>limited quantities</u> of dangerous goods.

Fuel, aviation, turbine engine	1863	3	Liquid flammable	A3	1	E3 E2	351 353 Y341	1 L 5 L 1 L
					Ш	E1	355 Y344	60 L 10 L



>> See presentation 02 - Limitations

EASA Workshop on Dangerous goods

19

19

04 - The list of Dangerous Goods

01 – Using the list of dangerous goods

Name									Passenger airc		Cargo air	craft only
	UN No.		Sub- sidiary	Labels	State varia- tions	Special provi- sions		Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet		А3	li	E0	FORB	DDEN	488	15 kg
				Spontaneous combustion			111	E2 E1	483 486	15 kg 25 kg	490 491	50 kg 100 kg

This column shows the maximum net quantity (mass or volume) of the article or substance allowed in each package...

... unless indicated by a letter "G" where the mass quoted is the total (gross) mass of the package:

Aerosols, flammable 1950 2.1 Gas flammable A145 A167 A167	E0	203 Y203	75 kg 30 kg G
---	----	-------------	------------------

EASA Workshop on Dangerous goods

01 – Using the list of dangerous goods

Name		Class or UN divi- No. sion	Sub- sidiary hazard	ny .	State varia- tions				Passenger airc			craft only
						Special provi- sions	UN packing group	Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet & Spontaneous combustion		А3	1 11	E0 E2 E1	FORB 483 486	DDEN 15 kg 25 kg	488 490 491	15 kg 50 kg 100 kg

Reminder

Where the word "FORBIDDEN" is written across columns 10 and 11, it means that an article or substance may not be carried on a passenger aircraft.

Anyway, it could be transported:

- with a specific exemption;
- or with the prior approval of the appropriate authorities when allowed by the special provisions ("A1" for pax, "A2" for pax and CAO).

>> See presentation 13

EASA Workshop on Dangerous goods

21

21

04 - The list of Dangerous Goods

01 – Using the list of dangerous goods

Name			Sub- i- sidiary	у	State varia- tions	Special provi- sions			Passenger and cargo aircraft		Cargo aircraft only	
	UN No.	Class or divi- sion						Excepted quantity	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
Magnesium powder	1418	4.3	4.2	Danger if wet		А3	1	E0	FORB	DDEN	488	15 kg
				Spontaneous combustion			II III	E2 E1	483 486	15 kg 25 kg	490 491	50 kg 100 kg

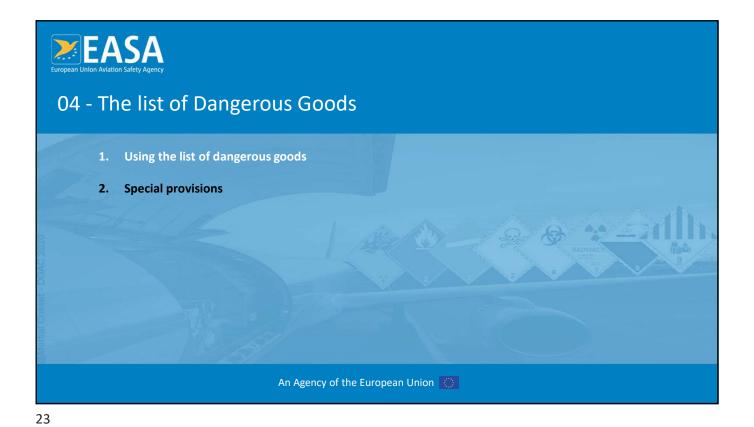
Explanations ≡ columns 10 & 11





EASA Workshop on Dangerous goods

22



02 – Special provisions

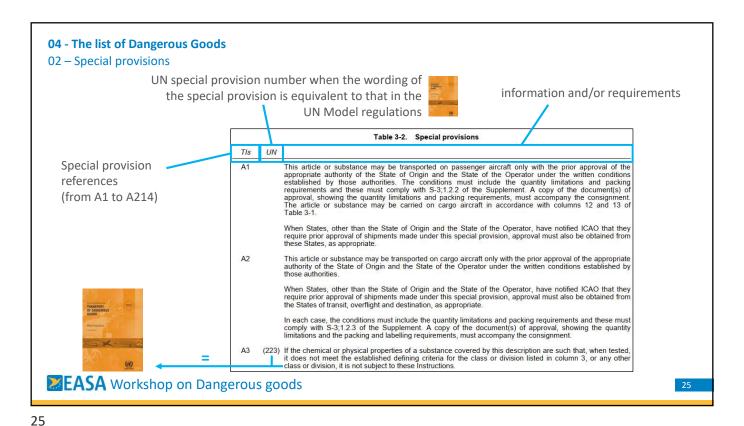
Name				Labels	State varia- tions	Special provisions			Passenger airc	and cargo craft	Cargo air	craft only
	UN No.						UN packing group	Excepted quantity	Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4	5	6	7	8	9	10	11	12	13
Magnesium powder	1418	4.3	4.2	Danger if wet		А3	1	E0	FORB	DDEN	488	15 kg
				Spontaneous combustion			111	E2 E1	483 486	15 kg 25 kg	490 491	50 kg 100 kg

Special provisions consist of complementary information related to the transport of the concerned Dangerous Goods.

They are listed in the table 3-2.

Special provisions apply to all the packing groups permitted for a particular substance or article unless the wording makes it otherwise apparent

EASA Workshop on Dangerous goods



02 - Special provisions

Examples

A9 (≈145) Alcoholic beverages containing not more than 70 per cent alcohol by volume, when packed in receptacles of 5 litres or less, are not subject to these Instructions when carried as cargo.



45 Other than for air transport, alcoholic beverages of packing group III, when carried in receptacles of 250 litres or less, are not subject to these Regulations.

A48 Packaging tests are not considered necessary.

A57 Packagings must be so constructed that explosion is not possible by reason of increased internal pressure.

A62 (178) This designation may only be used when no other appropriate designation exists in the list and then only with the approval of the appropriate authority of the State in which the dangerous goods were manufactured.

A145 Waste aerosols are forbidden from air transport.

EASA Workshop on Dangerous goods

