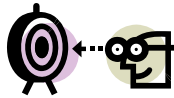


Marking



1

Objectives



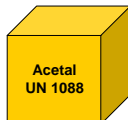
In this lesson, you will learn to:

- Explain basic required markings for a DG package.
- Identify additional markings required for some DG packages.
- Identify the correct application of markings on DG packages.

2

Application of Markings

- Not covered or obscured
- Durable
- Printed, marked on, or affixed to the external surface of the package
- Readily visible, legible
- Able to withstand open weather
- On background of contrasting color
- Located away from other markings that could reduce its effectiveness



ICAO TI 5:2.2

3

Basic Markings

Basic dangerous goods markings include:

- Proper shipping name (and technical name if applicable)
- UN #
- Name & address of shipper and consignee



ICAO TI 5; 2.4.1 & 2.4.2

4

Additional Markings

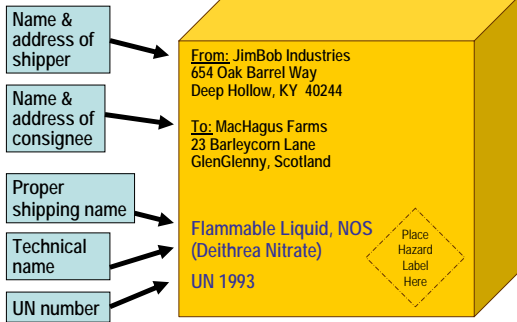
- Additional markings are required for:
 - Explosives
 - Radioactive materials
 - Dry ice
 - Diagnostic specimens
 - Refrigerated liquefied gases
 - Limited quantities
 - Overpacks



ICAO TI 5; 2.4

5

Marking Example



6

Lesson Review



In this lesson, you learned to:

- Explain basic required markings for a DG package.
- Identify additional markings required for some DG packages.
- Identify the correct application of markings on DG packages.

7

Labelling



8

Objectives



In this lesson, you will learn to:

- Identify when to use the hazard and handling labels on a package of dangerous goods
- Determine the proper application of labels on packages of dangerous goods
- Explain the specifications of hazard and handling labels

9

Labelling

- Two kinds of labels:

Hazard Labels

Handling Labels

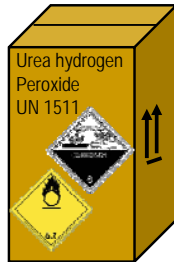
- Unlike markings, labels have specific design criteria that must be met



ICAO TI 5; Chap 3 10

Hazard Labels

- Applied to package as specified by the DG List (Table 3-1)
- Must stand up to open weather
- Except for Class 7, only one of each applicable hazard label is required on the package

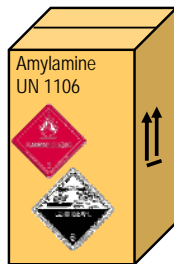


ICAO TI 5; Chap 3

11

Application of Hazard Labels

- Affixed on background of contrasting color have a solid or dotted line as a border on the label
- Placed near PSN marking—if there is room
- Not covered or obscured
- Primary & subsidiary labels placed next to each other



ICAO TI 5; Chap 3

12

Hazard Label Specifications

- 100 mm x 100 mm
- Square set at 45°
- Class number in lower corner
- Optional text describing hazard may be placed in bottom half
- Symbols and colors must be as illustrated in the ICAO TI



ICAO TI 5; 3.4 ¹³

Magnetized Material Label

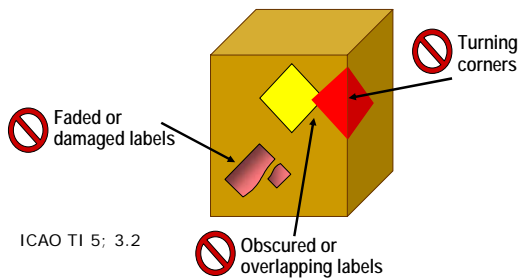


Used on magnetized material instead of the class 9 "Miscellaneous" label

ICAO TI 5; 3.2.10 & Figure 5-22

14

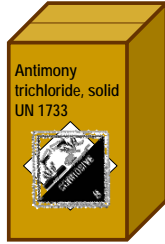
Applying Labels



ICAO TI 5; 3.2

15

A labelling violation?



ICAO TI 5; 3.2 & 3.4.1 16

Handling Label: Cargo Aircraft Only

- Used when package can only travel on cargo aircraft
- Packages bearing this label may not be loaded aboard passenger aircraft
- CAO label is placed next to hazard labels



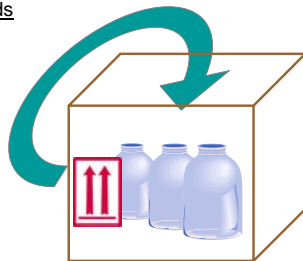
ICAO TI 5; 3.2.11

17

Handling Label: Orientation Arrows



- Required on combination packages containing liquids –with a few exceptions
- Placed on two opposite sides (180°) and pointing up
- Arrows for purposes other than orientation are prohibited on liquid DG packages



ICAO TI 5; 3.2.11.b & 4; 1.1.13

18

Other Handling Labels



Used in addition to the hazard label on refrigerated liquefied gases (liquid nitrogen, etc.).

ICAO TI 5; 3.2.11(c) & Figure 5-26

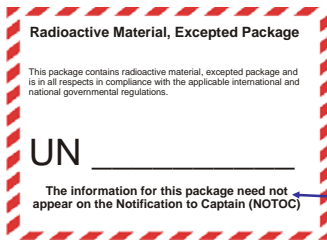


Required on packages containing self-reactive substances of Division 4.1 and on Division 5.2 organic peroxides.

ICAO TI 5; 3.2.11(d) & Figure 5-27

19

Other Handling Labels



This package contains radioactive material, excepted package and is in all respects in compliance with the applicable international and national governmental regulations.

The information for this package need not appear on the Notification to Captain (NOTOC)

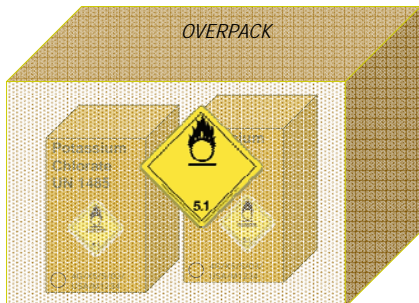
Used on "excepted packages" of radioactive materials.

Optional text

ICAO TI 5; 3.2.11(e) & Figure 5-28

20

Labelling Overpacks



Unless the labels on inside packages are visible, hazard and handling labels must be reproduced on the outside of overpacks.

ICAO TI 5; 3.3.1

21

Lesson Review



After completion of this lesson, you should be able to:

- Identify when to use the hazard and handling labels on a package of dangerous goods
- Determine proper application of labels on packages of dangerous goods
- Identify the specifications of hazard and handling labels

22

Documentation



23

Objectives



- Identify the information required on an air transport document for dangerous goods
- Identify the contents and sequence of the basic description
- Identify additional entries required on a DG air transport document

24

Objectives (Continued)

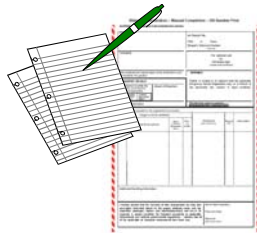


- Identify the format required by ICAO for a DG air transport document
- Identify the differences between ICAO & IATA requirements for DG documentation
- Identify air waybill requirements for DG

25

DG Transport Document

- No particular form required
- Shipper must provide two copies to the operator
- DG info must be easy to identify, durable, legible
- *Should* be in English



ICAO TI 5; 4.1.1, 4.1.2, 4.1.6.3

26

Required Entries for All Dangerous Goods



- Name & address of shipper and consignee (5; 4.1.3)
- Basic dangerous goods description (5; 4.1.4)
- Total quantity of DG + the number and kind of packages (5; 4.1.5.1)
- Packing instruction numbers (5; 4.1.5.8.1.a.)
- Passenger/Cargo Aircraft statement (5; 4.1.5.8.1.b.)
- Certification statement with signature and date (5; 4.1.6)

ICAO TI 5; 4.1.3, 4.1.4, 4.1.5, 4.1.6

27

Basic DG Description

Optional

- UN #
- Proper shipping name (+ technical name)
- Hazard class/div
- Subsidiary hazard classes/div (if any)
- PG (if applicable)

Must be entered in this order:
"UN1090, Acetone, 3, II"

28

ICAO TI 5: 4.1.4

Sample Air Transport Document

This document meets all ICAO requirements, however, most IATA member airlines will insist on the IATA-style dangerous goods document.

To: Kingston Boat Yard, 3 Main St., Kingston, Jamaica
From: Rooney's Paints & Solvents, 999 University St., Montreal, Canada

This shipment is within the limitations of Passenger and Cargo Aircraft / ~~Cargo Aircraft Only~~

UN1090, Acetone, 3, II
1 fiberboard box 5 L
Pack. Instr.: 305

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked, and labelled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

I declare that all of the applicable air transport requirements have been met.
Doug McKenzie
22 May 05

29

Circumstances Requiring Additional Entries

- Limited quantities
- Infectious substances
- Radioactive materials
- Spec. Prov. A1, A2, A109
- Overpacks
- Q values
- Salvage packagings
- Self-reactive substances
- Special handling

LTD QTY
 Q = 0.9
 Overpack used
 Shade from sunlight, store away from heat

ICAO Part 5: 4.1.5a

Dangerous Goods Transport Document

NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Risk)	Packing Group	Quantity and type of Packaging	Packing Inst.	Authorization
UN1199	Furaldehydes	6.1 (3)	II	1 Fibreboard Box X 2 L	609	

Hazard class/div and subsidiary hazard class/div (if applicable)
ICAO TI 5; 4.1.4.1c.

34

Dangerous Goods Transport Document

NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Risk)	Packing Group	Quantity and type of Packaging	Packing Inst.	Authorization
UN1199	Furaldehydes	6.1 (3)	II	1 Fibreboard Box X 2 L	609	

Packing group (if applicable) ICAO TI 5; 4.1.4.1.c.

35

Dangerous Goods Transport Document

NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Risk)	Packing Group	Quantity and type of Packaging	Packing Inst.	Authorization
UN1199	Furaldehydes	6.1 (3)	II	1 Fibreboard Box X 2 L	609	

Total quantity of DG and number and kind of packages ICAO TI 5; 4.1.5.1.

36

Dangerous Goods Transport Document

Additional Handling Information	
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. I declare that all of the applicable air transport requirements have been met.	Name/Title of Signatory: Eric Chm Shipper
	Place and Date: Beijing 01 June 2005
	Signature: Eric Chm
	(See reverse side)

Certification/Declaration ICAO TI 5; 4.1.6.1.

40

Dangerous Goods Transport Document

Additional Handling Information	
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. I declare that all of the applicable air transport requirements have been met.	Name/Title of Signatory: Eric Chm Shipper
	Place and Date: Beijing 01 June 2005
	Signature: Eric Chm
	(See reverse side)

Signature and date ICAO TI 5; 4.1.6.1

41

Common Mistakes on Dangerous Goods Transport Documents

PASSENGER AND CARGO AIRCRAFT ONLY		PASSENGER AND CARGO AIRCRAFT ONLY				
Airport of Destination:		Airport of Origin (Optional):				
NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN ID No.	Proper Shipping Name	Class or Division (Secondary Risk)	Packing Group	Quantity and type of packing	Stickers	Authorization
1090	Acetone	3	2	5 L	805	

42

Summary



After this lesson you should be able to:

- Identify the information required on an air transport document for dangerous goods
- Identify the contents and sequence of the basic description
- Identify additional entries required on a DG air transport document

46

Summary (continued)



- Identify the format required by ICAO for a DG air transport document
- Identify the differences between ICAO & IATA requirements for DG documentation

47
