

Limited Quantity

Converting from Consumer Commodity to Limited Quantity
The Effects of HM-215K

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Rev 7/26/13

HARMONIZATION

Conclusion

- The ORM-D class was eliminated. You must transition ORM-D materials to the Limited Quantity exception or fully regulated. But for U.S. shipments by vessel, rail or highway, ORM-D allowed until Dec. 31, 2020.
- The marking symbol of the Limited Quantity changed. Use the new one
- But for U.S. shipments by highway, rail and vessel, old marking options allowed until Dec. 31, 2014
- For IMDG and IATA, you must use new LQ marking now.
- Canada has not changed regs but accepts new LQ marking now.

2

What happened

- UN model regs, IATA and IMDG changed the symbol for the Limited Quantity marking
- To maintain alignment with international regs, DOT:
 - Changed the LQ marking options
 - Eliminated the ORM-D class, not recognized outside the U.S.A.

3

The situation before in HMR

- What is limited quantity?
- What is ORM-D?
- What is consumer commodity?

4

How Many Hazard Classes?

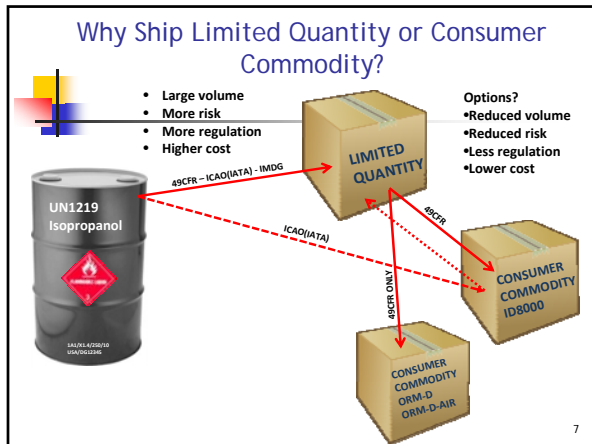
- Class 1 - Explosives (173.50)
- Class 2 - Compressed gasses (173.115)
- Class 3 - Flammable liquids (173.120)
- Class 4 - Flammable solids (173.240)
- Class 5 - Oxidizers and organic Peroxides (173.127 & 128)
- Class 6 - Poisonous/infectious materials (173.132 & 134)
- Class 7 - Radioactives (173.403)
- Class 8 - Corrosive materials (173.136)
- Class 9 - Miscellaneous Hazardous Materials (173.140)
- Combustible liquid (173.120)
- ORM-D Other Regulated Material (173.144) (phased out)
- Elevated Temperature (171.8)—Class 3

5

Steps to Compliance (Shippers)

1. Classification - obtain shipping description
2. Packaging - selection and assembly
3. Marking & Labeling of packages
4. Shipping papers & emergency response info
5. Placarding & marking of vehicles
6. Securement/segregation

6



What is Limited Quantity?

- § 171.8 "Limited Quantity"
- When specified as such in a section applicable to a particular material, means the maximum amount of a hazardous material for which there is a specific labeling or packaging exception.

8

What is ORM-D?

- Special DOT Hazard Class for "consumer products"
- Recognized in the U.S.A only
- Remnant from old DOT Hazard Classes (prior to 1991)
- DOT decided to eliminate it.

9

What is ORM-D?

- "ORM-D material" means a material such as a consumer commodity, which, although otherwise subject to the regulations of this subchapter, presents a limited hazard during transportation due to its form, quantity and packaging. [(173.144)].

10

What is "Consumer Commodity"?

- The DOT Proper Shipping Name for the ORM-D class. [§ 171.8]
- A material that is packaged and distributed in a form intended or suitable for sale through retail sales agencies or instrumentalities for consumption by individuals for purposes of personal care or household use. (also includes drugs and medicines).

11

ORM-D Marking is a Certification

12

49 CFR -- HM215 K

- Jan 19, 2011 rule
 - Adopted the new international limited quantity marking.
 - Broadened the scope of the limited quantity exception.
 - Eliminated the ORM-D consumer commodity.
 - Modified definition of consumer commodity for air transport.
 - Provided transition dates
- Dec 30, 2011 rule
 - Extended the transition deadlines
- Jan 7, 2013 rule
 - Further extended transition deadlines

13

Limited Quantities

- Quantity Limits
- Packaging (design)
- Package Testing
- Markings
- Documentation

14

What is Permitted as Limited Quantity or Consumer Commodity? 49 CFR 172.101 HM Table

(1) Symbols	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class or Division	(4) Identification Numbers	(5) PG Codes	(6) Label	(7) Special provisions	(8) Packaging (§173.***)			(9) Quantity limitations (see §§173.27 and 175.75)		(10) Vessel stowage	
							(8A) Non-bulk	(8B) Bulk	(8C) Passenger aircraft only	(9A) Cargo aircraft only	(9B) Location	(9C) Other	
	G Flammable liquids, corrosive, n.o.s.	3	UN2924	III, 8	T14, TP2	None	201	243	0.5 L	2.5 L	E	40	
				III, 8	IB2, T11, TP2, TP3	150	202	243	1 L	5 L	B	40	
				III, 8	IB3, T11, TP2, TP3	150	203	242	5 L	60 L	A	40	

Yes, must comply with §173.***
NO CHANGE

No, not permitted if Exceptions states "None"

15

LQ Exception Example §173.150 for Class 3

- Package must conform to subpart B of part 173
- Must not exceed 30kg (66 lb) g.w.
- combination packaging with strong outer package
- inner packagings not over
 - PG I - 0.5L (0.1 gal) each (net capacity)
 - PG II - 1.0L (0.3 gal) each
 - PG III - 5.0L (1.3 gal) each
- But for air is more restrictive (173.27)

16

LQ Exception Example §173.150 for Class 3

- Pre HM-215K-- Excepted from.....
 - labeling (unless by aircraft or also a 6.1)
 - UN packaging
 - Placarding

If transported by air, must.....
- comply with applicable requirements of §173.27
- only hazmat authorized for passenger aircraft permitted

17

LQ Exception Example §173.150 for Class 3

- Post HM-215K-- Excepted from.....
 - labeling (unless by aircraft or also a 6.1)
 - UN packaging
 - Placarding
 - Shipping document for ground, rail (domestic only)—
 - **NEW** --previously for ORM-D ground, rail vessel
- If transported by air, must.....
 - comply with applicable requirements of §173.27
 - only hazmat authorized for passenger aircraft permitted

18

49 CFR --Can I choose Limited Quantity? Example for UN1263 Paint

§ 172.101 HAZARDOUS MATERIALS TABLE

Sym- bols	Hazardous materials descrip- tions and proper shipping names	Hazard class or Division	Identifi- cation Numbers	PG	Label Codes	Special provisions (§ 172.102)	(B) Packaging (§ 173.151)		
							Excep- tions (8A)	Non- bulk (8B)	Bulk (8C)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)
	Paint including paint, lacquer, enamel, stain, shellac solu- tions, varnish, polish, liquid filler and liquid lacquer base	3	UN1263	I 3		T11, TP1, TP8, TP97	150	201	243
				II 3		149, B52, IB2, T4, TP1, TP2, TP3, TP9	150	173	242
				III 3		B1, B52, IB3, T2, TP1, TP2	150	173	242

49 CFR 173.150: 30kg (66 lb) g.w. max. inner packagings not over

- PG I – 0.5L (0.1gal) each (net capacity)
- PG II – 1 L (0.3gal) each
- PG III – 5 L (1.3gal) each

SP 149 --PG II LQ max increased to 5 L except for air
Air is more restrictive. See 173.27.

New LQ Marking

- Size 4"x4" (100mmx100mm). But can reduce to 2"x2"
- Must use air eligible marking (with Y) for air. Accepted for all modes but must comply with air restrictions/IATA.
- Apply as diamond. DOT accepts on side if necessary.
- Apply to one side of package.
- Placard transport units with LQ, 10" (250mm). No "Y"

49 CFR--Limited Quantity Example By Highway, Rail, Vessel UN1263 Paint PG II or III

Acceptable until 12/31/14 .

- Non-spec package (compare w/173.173)
- Inner pkg – 1 L max each (1.3 gal)
- Outer pkg – 30 kg g.m. (66 lb)
- Shipping paper required

Mandatory 1/1/15

New LQ marking

- Non-spec package
- Inner pkg – 1 L max each
- Outer pkg – 30 kg gross mass
- Shipping paper required for vessel but not for highway or rail
- Eligible for exceptions in 173.156 (previously for ORM-D only)

49 CFR--Limited Quantity Example By Highway, Rail, Vessel UN1263 Paint PG II or III

Acceptable until 12/31/14 .

Not required. Add for Canada

- Non-spec package
- Inner pkg – 1 L max each (1.3 gal)
- Outer pkg – 30 kg g.m. (66 lb)
- Shipping paper required

Another Option

DOT does not want you to mix old and new regs

IMDG--Can I choose Limited Quantity? Example for UN1263 Paint

Dangerous Goods List

UN No.	Proper Shipping Name (PSN)	Class or div- sion	Subsidi- ary risk(s)	Packing group	Special provisions	Limited and excepted quantity provisions
(1)	(2)	(3)	(4)	(5)	(6)	Limited quantities (ltd) (7a) Excepted quantities (exc) (7b)
1263	PAINT (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)	3		I	163	30 ml E3
1263	PAINT (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)	3		II	163	5 L E2
1263	PAINT (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)	3		III	163	5 L E1
3269	CORROSIVE LIQUID, ACIDIC, (ORGANIC), N.O.S.	8		I	274	0 E0

Yes, quantity permitted per inner package (points to 30 ml)

No, not permitted when "0" (points to 0)

IMDG--Limited Quantity Example

Limited Quantity – IMDG 34-08
Not acceptable after 12/31/11

*Shipping paper – yes, requires "LIMITED QUANTITY" or "LTD QTY" with shipping description

Limited Quantity – IMDG 35-10
Mandatory 1/1/12


*Shipping paper – yes, requires "LIMITED QUANTITY" or "LTD QTY" with shipping description

IMDG--Limited Quantity Example

Limited Quantity – IMDG 34-08
Not acceptable after 12/31/11

*Cargo Transport Units –

- containing only limited quantity packages need not be marked or placarded
- must be marked on exterior, "LIMITED QUANTITIES" or "LTD QTY"




Limited Quantity – IMDG 35-10
Mandatory 1/1/12

* LQ "placard" not required if required to be Class placarded.

*Cargo Transport Units –

- containing only limited quantity packages need not be marked or placarded
- must be marked on exterior with **NEW MARKING**. Min dimensions 250mm x 250mm




NOTE: The air marking **Y** is not to be used as a placard on CTUs

IATA--Limited Quantity Example

Limited Quantity – 2010

*Labeling – yes, as specified


*Shipping paper– yes, requires "LIMITED QUANTITY" or "LTD QTY"



Limited Quantity – 2011

*Labeling – yes, as specified

*Shipping paper– yes, **no longer requires "LIMITED QUANTITY" or "LTD QTY"**



NATURE AND QUANTITY OF DANGEROUS GOODS		Hazard class or division		Packing group		Special provisions		Remarks	
Class	Quantity	Class	Division	Code	Code	Code	Code	Code	Code
PAINT	3	III		1	Fiberboard box x 10L				LTD QTY

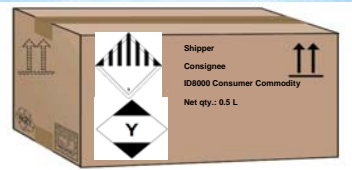
IATA--Consumer Commodity Example

Consumer Commodity– 2011

*Marking – standard package markings, (PSN, UN number, shipper, consignee, etc.) **plus, NEW Limited Quantity mark**


*Labeling – yes, as specified

*Shipping paper– yes, **does not require "LIMITED QUANTITY" or "LTD QTY"**



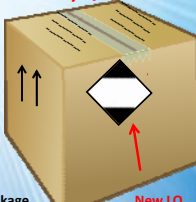
49 CFR--Consumer Commodity Example By Highway, Rail, Vessel UN1263 Paint PG II or III

Acceptable until 12/31/20



- Non-spec package
- Inner pkg – 1 L max each (1.3 gal)
- Outer pkg – 30kg g.m. (66 lb)
- No shipping paper required
- Eligible for exceptions in 173.156

ORM-D Transitions to Limited Quantity. Mandatory 1/1/21




New LQ marking


- Non-spec package
- Inner pkg – 1 L max each
- Outer pkg – 30kg gross mass
- Shipping paper required for vessel but not for highway or rail
- Eligible for exceptions in 173.156

49 CFR--Consumer Commodity Example Dual Marking

Acceptable until 12/31/20




ORM-D Transitions to Limited Quantity. Mandatory 1/1/21



"Consumer Commodity" PSN only acceptable with ID800.

ORM-D Air not accepted after 12/31/12



30

Shipping Descriptions for LQ/ORM-D Example for "UN1263, 3, Paint, PG II"

Shippers/carriers use bill of lading

LQ--Shipping document not required by highway and rail in U.S.—**NEW**

- Limited Quantity Material
- PAINT
- UN1263, PAINT, 3, PG II, LTD. QTY
- Other

ORM-D-- Shipping document not required for highway in U.S.

- PAINT
- Consumer Commodity, ORM-D
- Other

31

How about Canada?



TDG accepts into/out of Canada
49 CFR, IATA/ICAO, IMDG

32

TDG--Limited Quantity Example By Highway, Rail, Vessel UN1263 Paint



34

How to Transition

- Limited Quantity
 - Are you shipping Internationally?
 - Applying stickers
 - Using pre-pre-printed boxes?
- ORM-D
 - Are you shipping Internationally?
 - Dual Marking?
 - Applying stickers?
 - Using pre-preprinted boxes?
 - Hazmat charges for LQ v. ORM-D?
- You must train them

Conclusion

- The ORM-D class was eliminated. You must transition ORM-D materials to the Limited Quantity exception or fully regulated. But for U.S. shipments by vessel, rail or highway, ORM-D allowed until Dec. 31, 2020.
- The marking symbol of the Limited Quantity changed. Use the new one
- But for U.S. shipments by highway, rail and vessel, old marking options allowed until Dec. 31, 2014
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35