



S A A M I[®]

SPORTING ARMS AND AMMUNITION MANUFACTURERS' INSTITUTE, INC.

SINCE 1926

2013 LOGISTICS SEMINAR

GLOBAL ADDITION OF CLASS 1 INTO LQ

SAAMI[®]

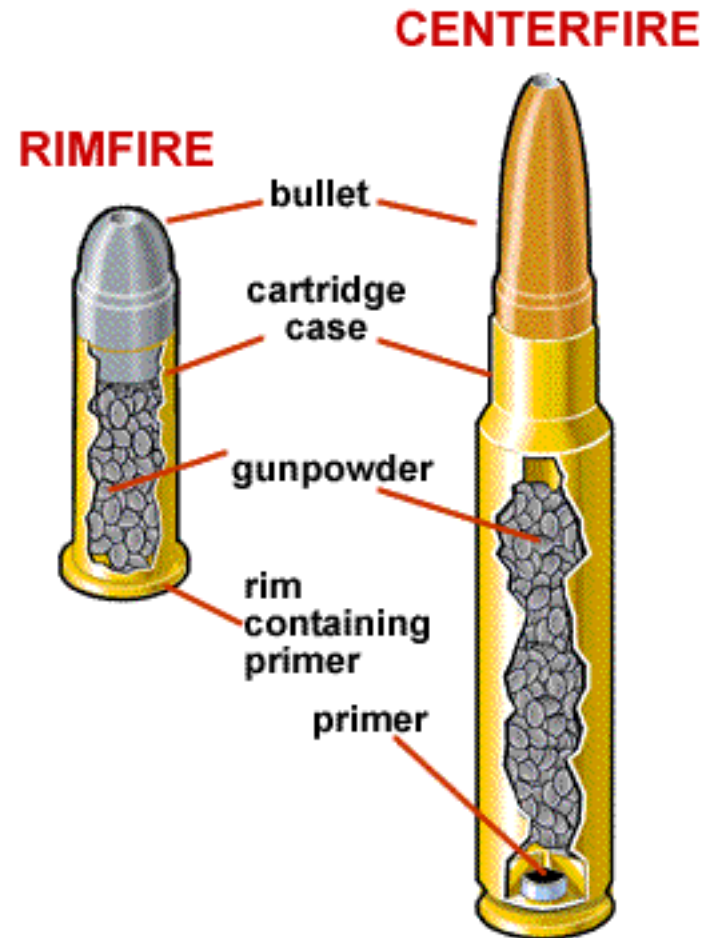
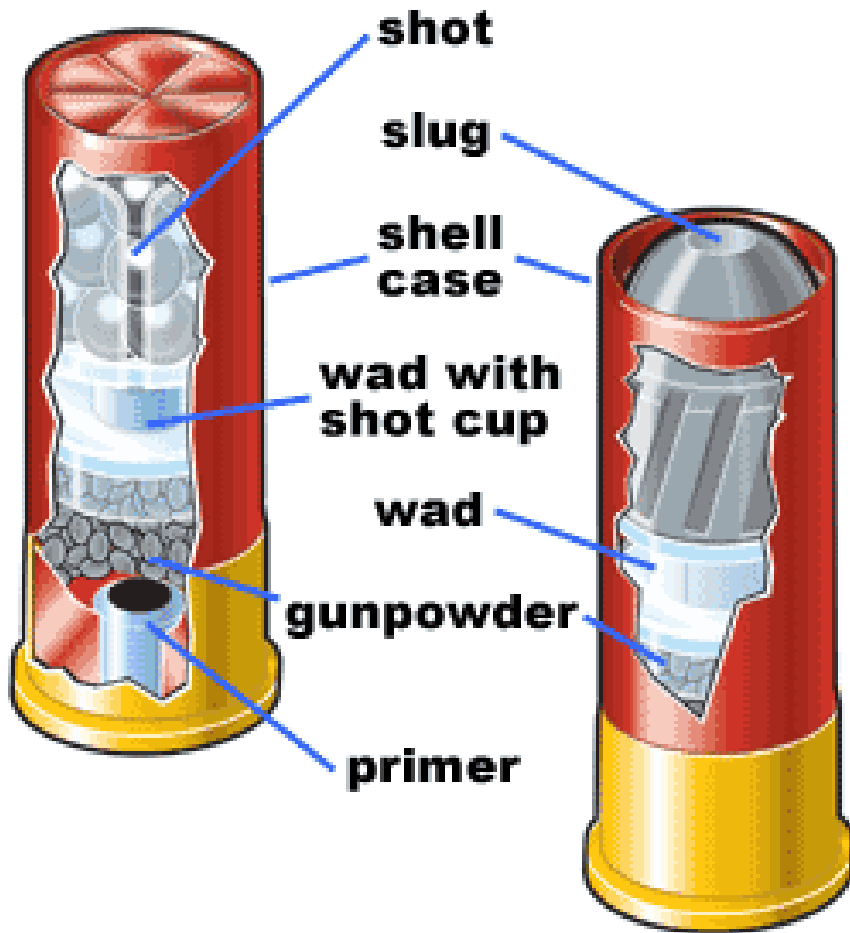
SPORTING ARMS AND AMMUNITION MANUFACTURERS' INSTITUTE, INC.

SINCE 1926

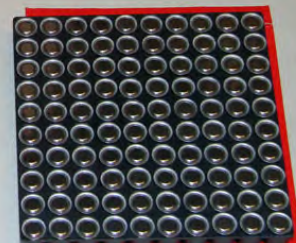
2013 LOGISTICS SEMINAR - Ammunition & Components -

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AMMUNITION COMPONENTS



SMALL ARMS PRIMERS



SMALL ARMS PROPELLANTS



HazMat Table

Basic Description

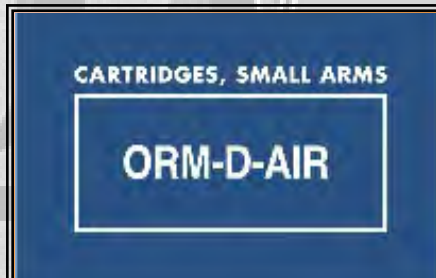
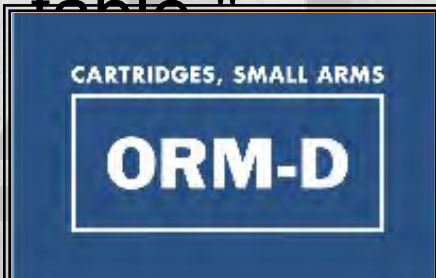
Sec. 172.101 Hazardous Materials Table

Sym bols (1)	Hazardous materials description and proper shipping names (2)	Hazard class or division (3)	Identifi- cation Num- bers (4)	PG (5)	Label Codes (6)	Special provi- sions (7)	(8) Packaging (\$173.***)			(9) Quantity limitations		(10) Vessel stow age	
							Excep- tions (8A)	Non- bulk (8B)	Bulk (8C)	Passenger aircraft/rail (9A)	Cargo air- craft only (9B)	Loca- tion (10A)	Other (10B)
	Cartridges for weapons, blank or Cartridges, small arms, blank	1.4S	UN0014	II	None	-	63	62	None	25 kg	100 kg	5	5
	Cartridges for weapons, inert projectile or Cartridges, small arms	1.4S	UN0012	II	None	-	63	62	None	25 kg	100 kg	5	5
D	Cartridges, small arms	ORM-D		-	None	-	63	None	None	30 kg gross	30 kg gross	A	-
D	Cartridges, power device (<i>used to project fastening devices</i>)	ORM-D		-	None	-	63	None	None	30 kg gross	30 kg gross	A	-
	Cases, cartridge, empty with primer	1.4S	UN0055	II	1.4S	50	None	62	None	25 kg	100 kg	5	-
	Pow der, smokeless	1.3C	UN0161	II	1.3C	-	None	62	None	Forbidden	Forbidden	-	26E
	Primers, cap type	1.4S	UN0044	II	None	-	None	62	None	25 kg	100 kg	05	-
	Primers, cap type	1.4B	UN0378	II	1.4B	-	None	62	None	Forbidden	75 kg	07	-
D	Smokeless pow der for small arms	4.1	NA3178	II	4.1	16	None	171	None	Forbidden	7.3 kg	A	-

173.144 DEFINITION

ORM-D

Other Regulated Materials, Group 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. It must be a material for which exceptions are provided in the § 172.101



LQ/ORM-D

171.16 Spill Reporting

172.101 Subpart B, HM Table & Special Provisions

172.200 Subpart C, Shipping Papers (except haz sub, haz waste, marine poll., air and vessel)

172.300 Subpart D, Marking

172.400 Subpart E, Labeling

172.500 Subpart F, Placarding

172.600 Subpart G, Emergency Response Info

172.700 Subpart H, Training

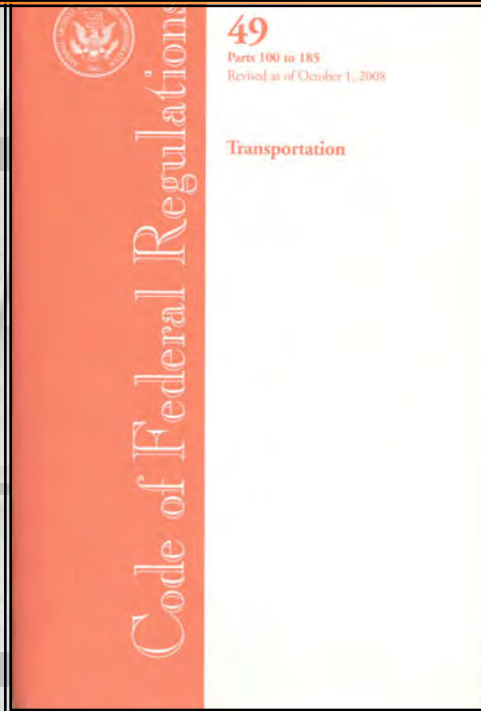
172.800 Subpart I, Security Plans

173.63 Spec Packaging Exception

175.75 Aircraft Accessibility

ORM-D Eliminates Ground Fees

**The ORM-D System
Eliminates Shipping
Paper Requirements.**



\$27.5

0

**No Shipping Paper = No
Hazmat Fee**

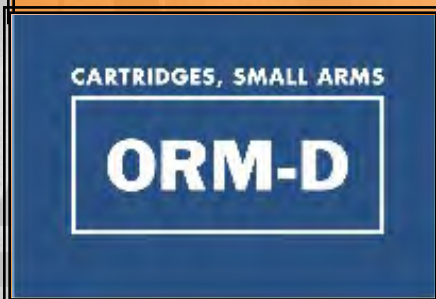
BREAKING CASES

- Distributors Break Cases For Retailers As Their Value Added Service
- A Foundation Of Consumer Sales
- ORM-D Eliminates POP Testing And Allows Partial Case Shipping
- Haz and Non-Haz Mixed Together To Reduce Shipping Cost



ORM-D PHASE OUT

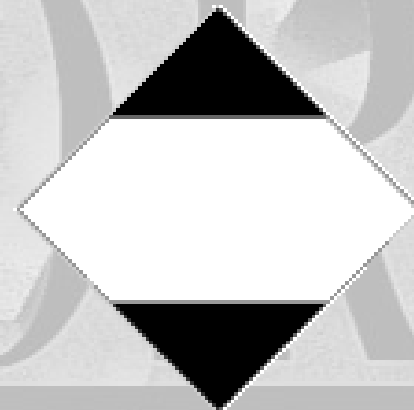
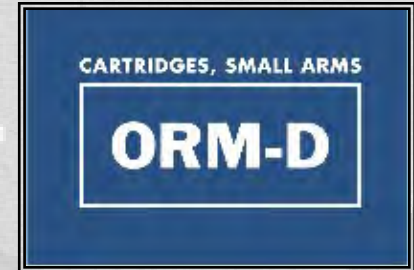
- **LQ modified to replace ORM-D**
- **ORM-D-AIR – DEC. 31, 2012**
ORM-D-AIR No Longer Exists
- **ORM-D**
ORM was originally scheduled to end on Dec 31, 2013, now Dec 31, 2020. Running concurrently with LQ since Jan 2011.



SCHEDULE



	<u>Effective Date</u>
Domestic UN0012 & 0014	January-11
Domestic UN 0055 and UN 0014 powerloads	January-13
IMDG	January-13
ICAO	N/A
ADR	January-13
ORM-D-AIR Ends	31-Dec-2012
ORM-D Ground Ends	31-Dec-2013 (extended to Dec/20)



LQ DEFINITION

“The rationale behind limited quantity provisions is that selected (*i.e. lower hazard*) dangerous goods packed in small quantities and in good, robust packaging pose a lesser risk in transport than do the same goods packed in larger volumes, and on this basis some relief from the requirements may be accepted.” – UN Guiding Principles



- No LQ shipment maximum.
- 30kg Gross Combination Pkg.



Ammo: 5kg inner max



LQ BY CLASS (16th Ed.)

Class/ Division	Packing Group	Quantity
1		Not permitted
2		Aerosols and gas cartridges containing toxic substances: 120 ml/30 kg Other aerosols and gas cartridges: 1 L/30 kg
2.1		Not permitted
2.2		Without subsidiary risk: 120 ml/30 kg With subsidiary risk: Not permitted
2.3		Not permitted
3	I	Not permitted
	II	1 L/30 kg ^b
	III	5 L/30 kg ^c
4.1	I	Not permitted

Class 1 was not permitted

SAAMI - NGO AT THE UN

United Nations

ST/SG/AC.10/C.3/2010/18



Secretariat

Distr.: General
1 April 2010

Original: English

**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals**

Sub-Committee of Experts on the Transport of Dangerous Goods

Thirty-seventh session

Geneva, 21–30 June 2010

Item 2 of the provisional agenda

Explosives and related matters

Division 1.4S limited quantities

**Transmitted by the Sporting Arms & Ammunition Manufacturers'
Institute (SAAMI)¹**

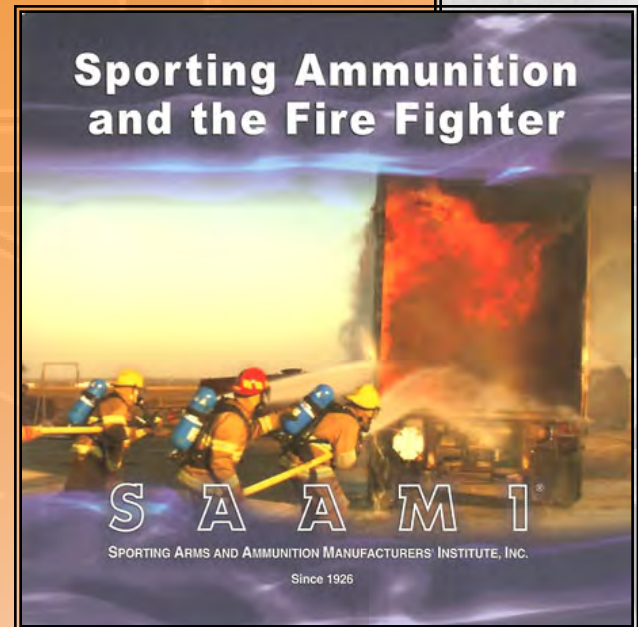
Introduction

1. At the thirty-sixth session of the Sub-Committee, discussions were held on the proposals from SAAMI (ST/SG/AC.10/C3/2009/38 and informal document INF.9) regarding the transport of UN 0012, CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS, UN 0014, CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK or CARTRIDGES FOR TOOLS, BLANK, and UN 0055, CASES, CARTRIDGE, EMPTY, WITH PRIMER, as limited quantities.

EQUIVALENT SAFETY

Sporting Ammunition Outside A Firearm:

1. Is Unlikely To Ignite Under Extreme Conditions Of Impact
2. Will Not Propagate In A Chain Reaction Independent of Packaging
3. Will Not Be The Source Of A Fire
4. Is Slow To Ignite In A Fire
5. Does Not Mass Explode
6. May Be Controlled By Fire Fighters Using Water And Wearing Standard Structural Fire Fighter Protective Clothing And SCBA



UN CHANGES 17th EDITION

UN No.	Name and description	Class or division	Subsidiary risk	UN packing group	Special provisions	Limited and excepted quantities		Packagings and IBCs	
						(7a)	(7b)	Packing instruction	Special packing provisions
(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)
-	3.1.2	2.0	2.0	2.0.1.3	3.3	3.4	3.5	4.1.4	4.1.4
0012	CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS†	1.4S			364	5 kg	E0	P130	
0014	CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK or CARTRIDGES FOR TOOLS, BLANK†	1.4S			364	5 kg	E0	P130	
0055	CASES, CARTRIDGE, EMPTY, WITH PRIMER†	1.4S			364	5 kg	E0	P136	

UN 17th ED. CHANGES CONT'D

364 This article may only be transported under the provisions of Chapter 3.4 if, as presented for transport, the package is capable of passing the test in accordance with Test Series 6(d) of Part I of the *Manual of Tests and Criteria* as determined by the competent authority.

“Evidence of a hazardous effect outside the package includes:

(d) A projection which passes completely through the packaging (a projection or fragment retained or stuck in the wall of the packaging is considered as non hazardous).”



Not Required In US & Canada

UN 17th ED. CHANGES CONT'D

PACKAGING:

3.4.2 Dangerous goods shall be packed only in inner packagings placed in suitable outer packagings. Intermediate packagings may be used. In addition, for articles of Division 1.4, Compatibility Group S, the provisions of section 4.1.5 shall be fully complied with. The use of inner packagings is not necessary for the transport of articles such as aerosols or “receptacles, small, containing gas”. The total gross mass of the package shall not exceed 30 kg.

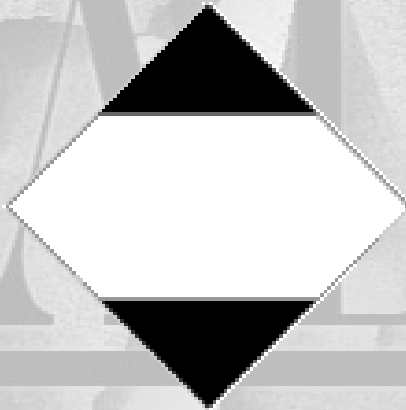
3.4.3 Except for articles of Division 1.4, Compatibility Group S, shrink-wrapped or stretch-wrapped trays meeting the conditions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 are acceptable as outer packagings for articles or inner packagings containing dangerous goods transported in accordance with this Chapter. Inner packagings that are liable to break or be easily punctured, such as those made of glass, porcelain, stoneware or certain plastics, shall be placed in suitable intermediate packagings meeting the provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8, and be so designed that they meet the construction requirements of 6.1.4. The total gross mass of the package shall not exceed 20 kg.

Spec Packaging Not Required In US & Canada

LQ EXCEPTIONS

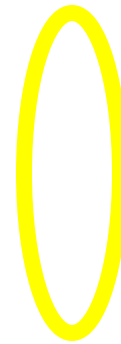
Common Exceptions (But May Be Permissively Used):

- Performance oriented packaging, if in strong combination packages of 30 kg max (the only exception for air)
- Marking, labeling and placarding
- Segregation
- Documentation (for ground)



US HAZMAT ENTRY CHANGES

Sec. 172.101 Hazardous Materials Table



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- UN 0014: New Proper Shipping Name “Cartridges for tools, blank”
- UN 0055: Now in 173.63 LQ Exception
- ORM-D Entries Will Be Phased Out Dec 31, 2015

OLD ORM-D AMMO EXCEPTION

Pipeline and Hazardous Materials Safety Admin., DOT

§ 173.63

(b) *Cartridges, small arms, and cartridges power devices.* (1) Cartridges, small arms, and cartridges power devices (which are used to project fastening devices) which have been classed as a Division 1.4S explosive may be reclassified, offered for transportation, and transported as ORM-D material when packaged in accordance with paragraph (b)(2) of this section. For transportation by aircraft, the package must also comply with the applicable requirements of §173.27 of this subchapter. Such transportation is excepted from the requirements of subparts E (Labeling) and F (Placarding) of part 172 of this subchapter. Cartridges, small arms, and cartridges power devices that may be shipped as ORM-D material are limited to:

- (i) Ammunition for rifle, pistol or shotgun;
- (ii) Ammunition with inert projectiles or blank ammunition;
- (iii) Ammunition having no tear gas, incendiary, or detonating explosive

(iv) Ammunition not exceeding 12.7 mm (50 caliber or 0.5 inch) for rifle or pistol, cartridges or 8 gauge for shotshells; and

(v) Cartridges, power devices which are used to project fastening devices.

(2) Packaging for cartridges, small arms, and cartridges power devices as ORM-D material must be as follows:

(i) Ammunition must be packed in inside boxes, or in partitions which fit snugly in the outside packaging, or in metal clips;

(ii) Primers must be protected from accidental initiation;

(iii) Inside boxes, partitions or metal clips must be packed in securely-closed strong outside packagings;

(iv) Maximum gross weight is limited to 30 kg (66 pounds) per package; and

(v) Cartridges, power devices which are used to project fastening devices and 22 caliber rim-fire cartridges may be packaged loose in strong outside packagings.

(c)-(e) [Reserved]

(f) Detonators containing

CARTRIDGES, SMALL ARMS

ORM-D

CARTRIDGES, SMALL ARMS

ORM-D-AIR

HM 215 K&L REVISIONS

§ 173.63 Packaging Exceptions

(b) Limited quantities of Cartridges, small arms, and ~~cartridges~~ Cartridges, power devices, Cartridges for tools, blank, and Cases, cartridge, empty with primer.

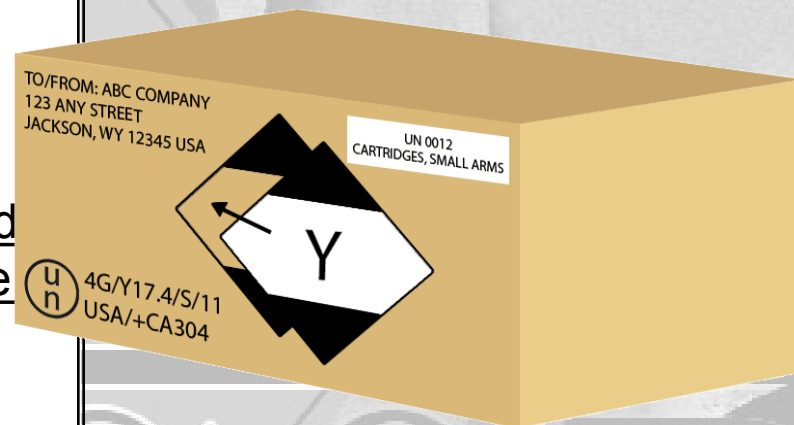
(1)(i) ~~Cartridges, small arms, and Cartridges power device (used to project fastening devices),~~ Cartridges for tools, blank, and Cases, cartridge, empty with primer that have been classed as Division 1.4S explosive may be offered for transportation and transported as limited quantities when packaged in accordance with paragraph (b)(2) of this section.



EXCEPTION REVISED 1/19/2011

§ 173.63 Packaging Exceptions Cont'd

Packages containing such articles may be marked with either the marking prescribed in § 172.315(a) or (b) of this subchapter and offered for transportation and transported by any mode



- **Either the Surface or Y-Mark Is Acceptable By Air**
- **Accessibility Doesn't Apply**
- **PHMSA Plans To Phase Out The Y-Mark For Ammo**

LQ/ORM-D REQUIREMENTS

For Ammo & Power Device Cartridges

❑ Air Must Comply With 173.27:

- Max Inner Packages:
- 5kg In Fiber, 10 KG in Metal/Plastic



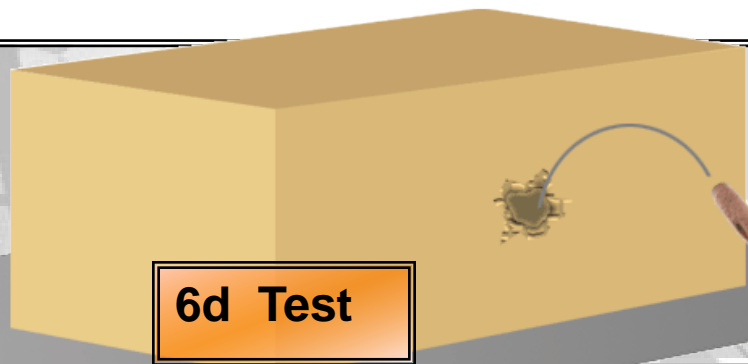
§ 173.63 Packaging Exceptions Cont'd

For transportation by aircraft, the package must conform to the applicable requirements of § 173.27 of this part.

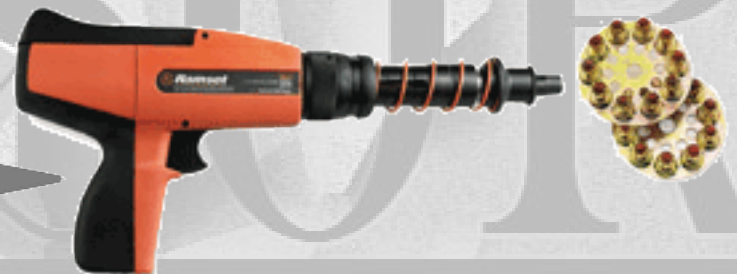
AIR TRANSPORT

6(d) TEST ON UN 0323

~~and, effective July 1, 2011, Cartridge, power devices must be successfully tested under the UN Test Series 6(d) criteria for reclassification as limited quantity material. Effective January 1, 2012, Cartridge, power devices must be successfully tested under the UN Test Series 6(d) criteria for reclassification as limited quantity material for transportation by highway, rail or vessel. Packages containing such articles must be marked as prescribed in § 172.315.~~



6d Test

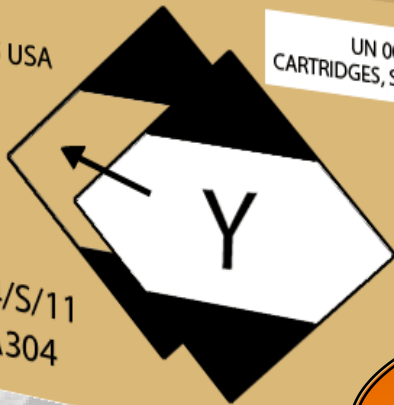


US LQ AIR TRANSPORT UN# & PSN

§ 173.63 Cont'd: In addition, packages containing such articles offered for transportation by aircraft must be marked with the proper shipping name as prescribed in the § 172.101 Hazardous Materials Table of this subchapter.

TO/FROM: ABC COMPANY
123 ANY STREET
JACKSON, WY 12345 USA

UN 0012
CARTRIDGES, SMALL ARMS



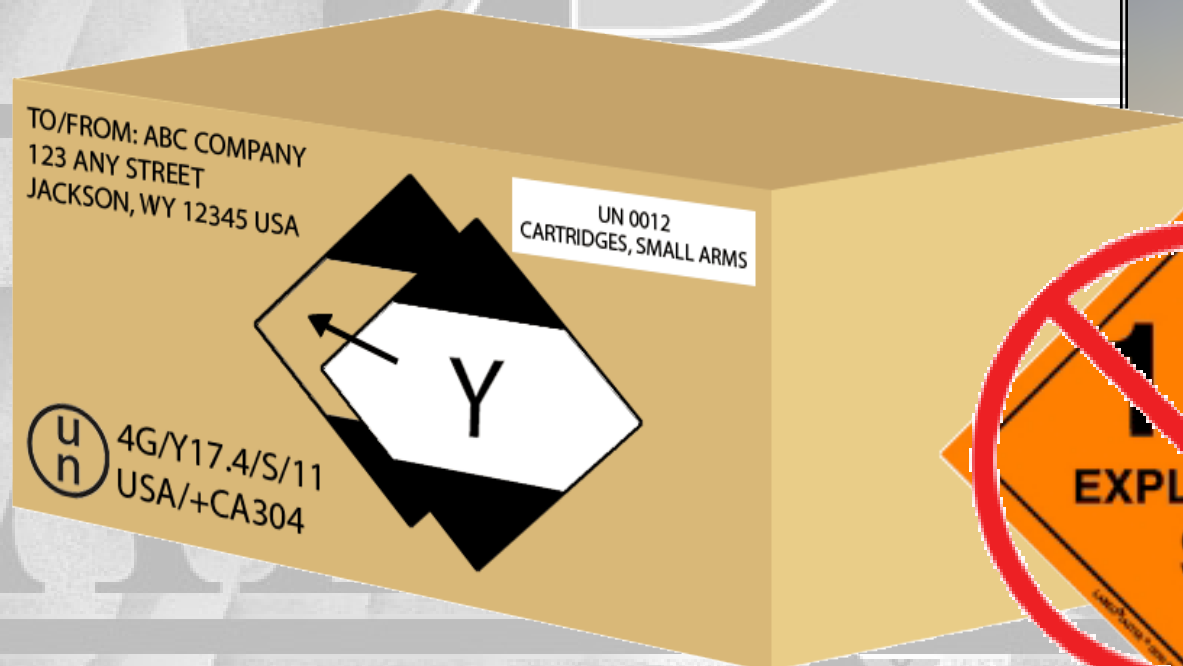
 4G/Y17.4/S/11
USA/+CA304



**UN 0012
CARTRIDGES, SMALL
ARMS**

US LQ AIR TRANSPORT NO 1.4S LABEL

- Note That, Unlike Other Hazard Classes, No Hazard Label Is Required For Air
- It Should Be Allowed



SHIPPING PAPERS

§ 173.63 Cont'd: Packages containing such articles are not subject to the shipping paper requirements of subpart C of part 172 of this subchapter unless the material meets the definition of a hazardous substance, hazardous waste, marine pollutant, or is offered for transportation and transported by aircraft or vessel.

Date: 9/4/2008 **BILL OF LADING** Page 1 of 1

Bill of Lading Number: (402) 00294650091554599

SHIP FROM
 Name: FEDERAL CARTRIDGE COMPANY
 Address: 900 EHLEN DRIVE
 City/State/Zip: ANOKA MN 55303
 SID#: FOB: [X]

SHIP TO
 Name: BUCKEYE OUTDOORS 43025
 Address: 120 ARROWHEAD BLVD
 City/State/Zip: HEBRON OH 43025
 CID#: FOB:

THIRD PARTY CHARGES BILL TO
 Name:
 Address:
 City/State/Zip:
 SPECIAL INSTR: 740-928-320
 OPEN MO: 8:30 - 5:00

SHIPMENT INFORMATION
 Name:
 Address:
 City/State/Zip:
 SPECIAL INSTR:
 OPEN MO:

SHIPMENT ORDER INFORMATION
 ORDER NUMBER: 121
 WEIGHT: 7756
 PALLET / SLIP: Y N
 ADDITIONAL SHIPPER: 0635207 00

GRAND TOTAL 341 7756

QTY	UNIT	PACKAGE TYPE	PCS	WEIGHT (In Lbs)	H. M. (X)	COMMODITY DESCRIPTION	CLASSIFICATION	LTL OR NMFC	SS
3	CASES		24	7,732	X	UN0014, PRIMERS, CARTRIDGES, SMALL	1.4S, PGII	643001	85
138	CASES							643001	85

(3) Pallets @ 180 (Net Wt) 7756 (Gross Wt) GRAND TOTAL 7936 NET EXPLOR 1 lba

Where the net is dependent on weight, the gross weight must be stated in addition to the net weight. The gross or declared value of the property must be stated by the shipper to be not less than the actual value.

NOTE: Liability Limitation for loss or damage to cargo. The carrier's liability for loss of or damage to cargo is limited to the actual value of the cargo at the time of shipment, unless otherwise indicated on this bill of lading. The carrier's liability for loss of or damage to cargo is limited to the actual value of the cargo at the time of shipment, unless otherwise indicated on this bill of lading.

SHIPPER'S SIGNATURE / DATE
 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

CARRIER SIGNATURE / PICKUP DATE
 Carrier acknowledges receipt of packages and regular pickup. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation on the vehicle. Property described herein is received in good order, except as noted.

LABELING & PLACARDING

§ 173.63 Cont'd: Additionally, packages containing ~~these~~ such articles are excepted from the requirements of subparts E (Labeling) and F (Placarding) of part 172 of this subchapter.



ORM-D PARAGRAPH

§ 173.63 Cont'd: (ii) Until December 31, 2012, a package containing such articles may be marked with the proper shipping name “Cartridges, small arms” or “Cartridges, ~~power device~~ for tools, blank (used to project fastening devices)” and reclassified as “ORM-D-AIR” material if it contains properly packaged articles as authorized by this subchapter on October 1, 2010. Additionally, for transportation by aircraft, Cartridges, power devices must be successfully tested under the UN Test Series 6(d) criteria for reclassification as ORM-D-AIR material effective July 1, 2011. Until December 31, ~~2013~~ 2020, a package containing such articles may be marked with the proper shipping name “Cartridges, small arms” or “Cartridges, ~~power device~~ (used to project fastening devices)” and reclassified as “ORM-D” material if properly packaged articles as authorized by this subchapter on October 1, 2010.



ELIGIBLE CARTRIDGES

§ 173.63: (iii) Cartridges, small arms and ~~Cartridges power devices~~ for tools, blank, and Cases, cartridge empty with primer that may be shipped as a limited quantity or ORM-D material are as follows:

- (A) Ammunition for rifle, pistol or shotgun;
- (B) Ammunition with inert projectiles or blank ammunition;



ELIGIBLE CARTRIDGES

...

(C) Ammunition having no tear gas, incendiary, or detonating explosive projectiles;

(D) Ammunition not exceeding 12.7 mm (50 caliber or 0.5 inch) for rifle or pistol, cartridges or 8 gauge for shotshells; and

(E) Cartridges, ~~power devices which are used to project fastening devices for tools, blank; and~~

(F) Cases, cartridge, empty with primer.



**Bullet, Cartridges,
Shotshell**

LQ/ORM-D PACKAGING

§ 173.63: (b)(2) Packaging for Cartridges, small arms and ~~eligible Cartridge, power devices~~, Cartridges for tools, blank, Cases, cartridge empty with primer as limited quantity or ORM-D material must be as follows:

(i) Ammunition must be packed in inside boxes, or in partitions ~~which~~ that fit snugly in the outside packaging, or in metal clips;



LQ/ORM-D PACKAGING

§ 173.63: (ii) Primers must be protected from accidental initiation;



- **Loose Jumble Pack Centerfire Ammo Is Eligible For 1.4S, But Not LQ/ORM-D**

LQ/ORM-D PACKAGING

§ 173.63: (iii) Inside boxes, partitions or metal clips must be packed in securely-closed strong outside packagings;



LQ/ORM-D PACKAGING

§ 173.63: (iv) Maximum gross weight is limited to 30 kg (66 pounds) per package; and



LQ/ORM-D PACKAGING

§ 173.63: (v) Cartridges, power devices which are used to project fastening devices for tools, blank, Cases, cartridge, empty with primer, and 22 caliber rim-fire cartridges may be packaged loose in strong outside packagings.



LQ MARK

- The LQ marking must be durable, legible and of a size relative to the package that is readily visible.
- On at least one side or one end
- Minimums: 2mm border and each side 100 mm
- Unless the package size requires reduced size marking, then minimum 50 mm on each side.
- The top, bottom and border must be black, and the center white or a contrasting



background

LQ MARKING EXCEPTIONS

Except for air shipments:

- **When Marked With The Limited Quantity Marking.**
- **LQ Not Required To Be Marked With Proper Shipping Name Or UN Number (Except Air)**
- **Spec Packaging Not Required In US or Canada**



MINIMUM MARKING

FROM: ABC COMPANY
123 ANY STREET
JACKSON, WY 12345 USA

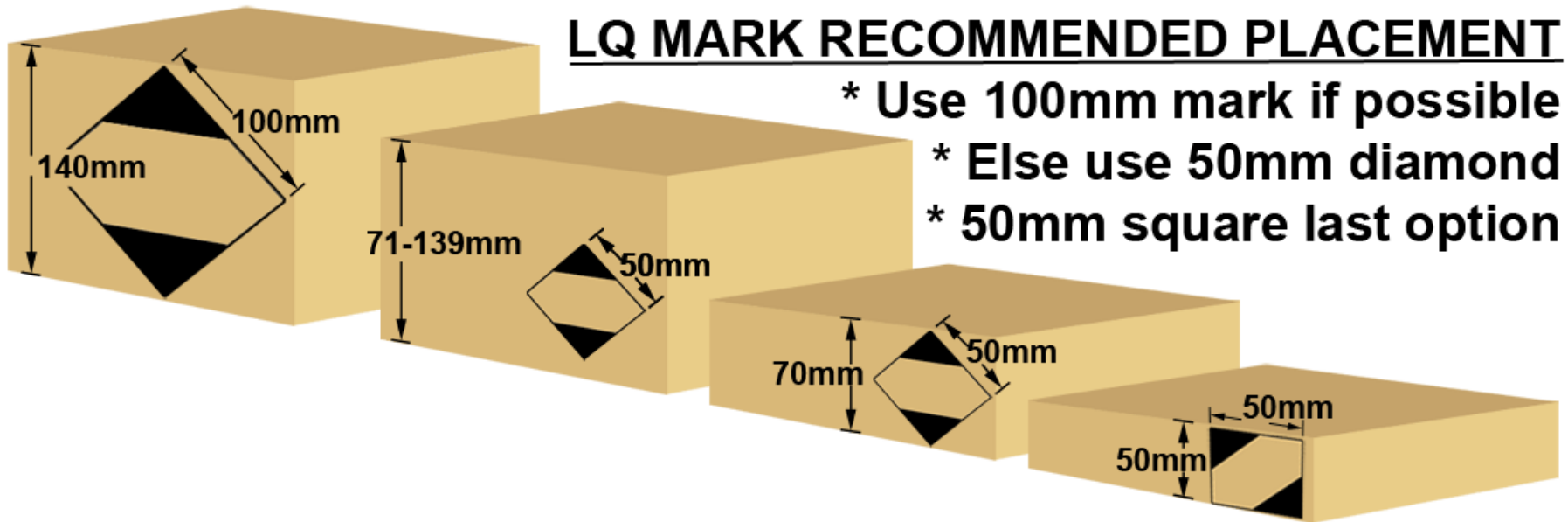
4G/Y17.4/S/11
USA/+CA304



STANDARD MARKING

CHOOSING A SIZE

LQ MARK RECOMMENDED PLACEMENT



OVERPACKS

Unless Markings Are Visible, Overpacks Must Be Marked "OVERPACK" And Relevant LQ Mark



LQ FREIGHT CONTAINER



When intended for vessel, a cargo transport unit containing only LQ material must be suitably marked on each side or end with minimum dimensions of 250 mm on each side.



S A A M M I[®]

SPORTING ARMS AND AMMUNITION MANUFACTURERS' INSTITUTE, INC.

SINCE 1926

2013 LOGISTICS SEMINAR

OCEAN FREIGHT

SAAMI[®]

SPORTING ARMS AND AMMUNITION MANUFACTURERS' INSTITUTE, INC.

SINCE 1926

2013 LOGISTICS SEMINAR - Ammunition & Components -

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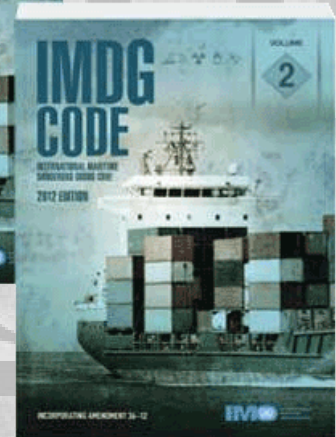
International Maritime Dangerous Goods Code



- ❑ **IMDG Published By The International Maritime Organization (IMO)**
- ❑ **A UN Body, Meets In London On Biennium Basis**
- ❑ **Code Revised Every 2 Years**
- ❑ **Latest Edition: 36-12, January 1, 2013 (Replaces 35-10)**

IMDG VS. 49 CFR

- ❑ IMDG Applies By Ocean
- ❑ ORM-D, Special Permits, NA #'s – Not Valid
- ❑ Ammunition Reverts To 1.4S



IMDG IN THE USA

DOT ALLOWS IMDG TO OVERRIDE:

- If All Or Part Of The Voyage Is By Vessel
- Even If It Isn't International

DOT STILL REQUIRES:

- Emergency Response Information
- Training
- Security Plans
- Incident Reporting
- Packaging Standards
- Registration
- EX #'s



2008 Emergency Response Guidebook

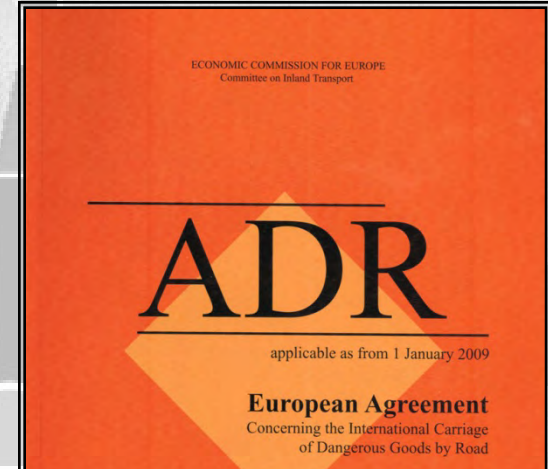


A GUIDEBOOK
FOR FIRST RESPONDERS
DURING THE INITIAL PHASE
OF A DANGEROUS GOODS/
HAZARDOUS MATERIALS
INCIDENT

IMDG IN ADR COUNTRIES

1.1.4.2 ADR ALLOWS IMDG TO OVERRIDE:

- Carriage In A Transport Chain Including Maritime
- Includes Packing, Marking & Labeling & Freight Container Placards.



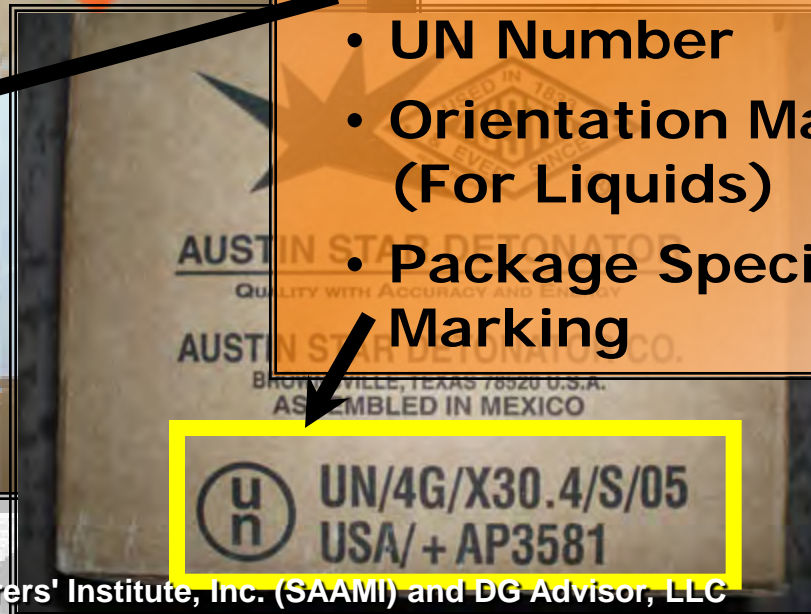
ADR CONTRACTING PARTIES:

Albania, Andorra, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kazakhstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Morocco, Netherlands, Norway, Poland, Portugal, the Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, the former Yugoslav Republic of Macedonia, Tunisia, Turkey, Ukraine and United Kingdom.

IMDG GENERAL MARKINGS

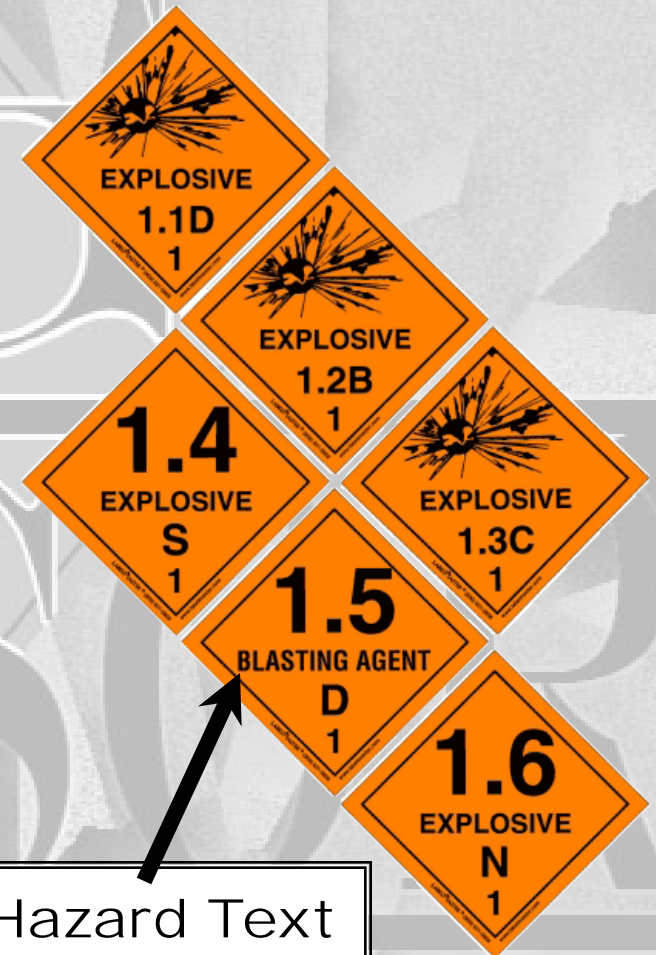


- Markings Shall Be Identifiable On Packages Surviving 3 Months Immersion In The Sea
- Markings Must Include:
 - Proper Shipping Name
 - UN Number
 - Orientation Markings (For Liquids)
 - Package Specification Marking



IMDG LABELING

- ❑ US Labels Meet IMDG Specification
- ❑ Hazard Class Text Is Optional (Like The USA)
- ❑ Packages Receiving Approval (e.g. EX#'s) Must Use Their Country's Design – Use USA Class 1 Labels
- ❑ Labels Are Minimum 100mm Per Side (Same As USA)
- ❑ Labels, Printed Or Stickers, Must Survive 3 Month's Immersion In The Sea

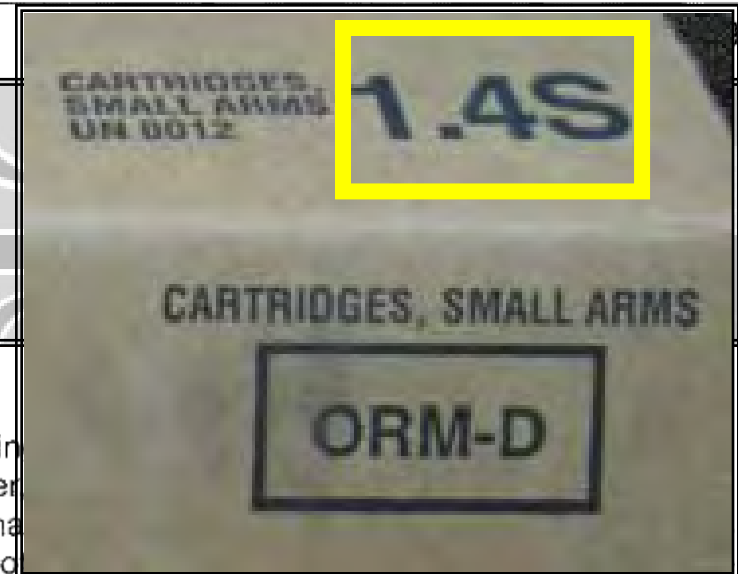


Hazard Text
Optional

1.4S MARKING

5.2.2.2.1.4 In addition, except for divisions 1.4, 1.5 and 1.6, labels for class 1 shall show in the lower half, above the class number, the division number and compatibility group letter for the substance or article. Labels for divisions 1.4, 1.5 and 1.6 shall show in the upper half the division number and in the lower half the class number and the compatibility group letter. For division 1.4, compatibility group S, no label is generally required. However, in cases where a label is considered necessary for such goods, it shall be based on model No. 1.4.

IMDG Code (Amdt. 36-12)



5.2.1 Marking of packages including IBCs

5.2.1.1 Unless provided otherwise in this Code, the Proper Shipping Name, hazard class or division, and the corresponding UN Number shall be marked on each package. The UN number and the letters "UN" shall be marked on packages of 30 L or 30 kg capacity or less and except for cylinders of 30 L or 30 kg capacity or less and except for cylinders of 30 L or 30 kg capacity or less and except for cylinders of at least 6 mm in height and for packagings of 5 L or 5 kg or less when they shall be of an appropriate size. In the case of unpackaged articles, the marking shall be displayed on the article, on its cradle or on its handling, storage or launching device. For goods of division 1.4, compatibility group S, the division and compatibility group letter shall also be marked unless the label for 1.4S is displayed. A typical package marking is:

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (caprylyl chloride) UN 3265.

PLACARDS & CTU MARKING

- ❑ Cargo Transport Units Must Normally Be Placarded, e.g. Class 3 solvents
- ❑ No Placards For 1.4S



No Container Placard



SEGREGATION TABLE

CLASS	1.1	1.3	1.4	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9
	1.2	1.6															
Explosives 1.1, 1.2, 1.5	*	*	*	4	2	2	4	4	4	4	4	4	2	4	2	4	X
Explosives 1.3, 1.6	*	*	*	4	2	2	4	4	4	4	4	4	2	4	2	4	X
Explosives 1.4	*	*	*	2	1	2	4	4	4	4	4	4	2	4	2	4	X
Flammable gases 2.1	4	4	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Non-toxic, non-flammable gases 2.2	2	2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Toxic gases 2.3	2	2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Flammable liquids 3	4	4	2	2	1	2	X	X	2	1	2	2	X	3	2	X	X
Flammable solids (including self-reactive substances and solid desensitized explosives) 4.1	4	3	2	1	X	X	X	X	X	X	X	X	X	X	X	X	X
Substances liable to spontaneous combustion 4.2	4	3	2	2	1	2	X	X	X	X	X	X	X	X	X	X	X
Substances, which on contact with water, emit flammable gases 4.3	4	4	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Oxidizing substances (agents) 5.1	4	4	2	2	X	X	X	X	X	X	X	X	X	X	X	X	X
Organic peroxides 5.2	4	4	2	2	1	2	X	X	X	X	X	X	X	X	X	X	X
Toxic substances 6.1	2	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Infectious substances 6.2	4	4	4	4	2	2	X	X	X	X	X	X	X	X	X	X	X
Radioactive material 7	2	2	2	2	1	1	X	X	X	X	X	X	X	X	X	X	X
Corrosive substances 8	4	2	2	1	X	X	X	X	X	X	X	X	X	X	X	X	X
Miscellaneous dangerous substances and articles 9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Same Results For Class 1 As Domestic Vessel

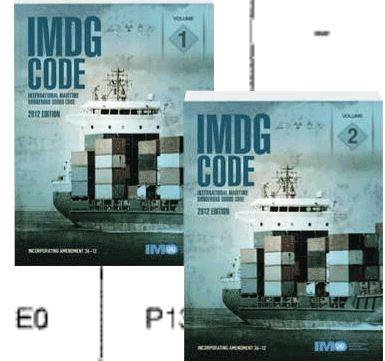


LQ CHANGES: CHAP 3.2

3

D
G
L

UN No.	Proper Shipping Name (PSN)	Class or division	Subsidiary risk(s)	Packing group	Special provisions	Limited and excepted quantity provisions		Packing	
						Limited quantities	Excepted quantities	Instructions	Provisions
(1)	(2) 3.1.2	(3) 2.0	(4) 2.0	(5) 2.0.1.3	(6) 3.3	(7a) 3.4	(7b) 3.5	(8) 4.1.4	(9) 4.1.4
△ 0012	CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS	1.4S	-	-	364	5 kg			-
△ 0014	CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK or CARTRIDGES FOR TOOLS, BLANK	1.4S	-	-	364	5 kg			-
△ 0055	CASES, CARTRIDGE, EMPTY, WITH PRIMER	1.4S	-	-	364	5 kg	E0	P133	
△ 0044	PRIMERS, CAP TYPE	1.4S	-	-	-	0	E0	P133	-



- 5kg and SP364 on UN 0012, 0014, 0055
- New PSN on UN 0014 “Cartridges for tools, blank”

LQ CHANGES: CHAP 3.3

IMDG Code (Amdt 36-12)

Chapter 3.3

Special provisions applicable to certain substances, materials or articles

3.3.1 When column 6 of the Dangerous Goods List indicates that a special provision is relevant to a dangerous good, the meaning and requirement(s) of that special provision are as set out below:

16 Samples of new or existing explosive substances or articles may be transported as directed by the competent authority for purposes including: testing, classification, research and development, quality control, or as a commercial sample. Explosive samples which are not wetted or desensitized shall be limited to 10 kg in small packages as specified by the competent authority. Explosive samples which are wetted or desensitized shall be limited to 25 kg.

- 364 This article may only be transported under the provisions of chapter 3.4 if, as presented for transport, the package is capable of passing the test in accordance with Test Series 6(d) of Part I of the *Manual of Tests and Criteria* as determined by the competent authority.

3

LQ CHAPTER 3.4

△ Chapter 3.4

Dangerous goods packed in limited quantities

LQ ELIMINATES MANY REQUIREMENTS

3.4.1 General

3.4.1.1 This chapter provides the provisions applicable to the transport of dangerous goods of certain classes packed in limited quantities. The applicable quantity limit for the inner packaging or article is specified for each substance in column 7a of the Dangerous Goods List of chapter 3.2. In addition, the quantity "0" has been indicated in this column for each entry not permitted to be transported in accordance with this chapter.

3.4.1.2 Limited quantities of dangerous goods packed in such limited quantities, meeting the provisions of this chapter, are not subject to any other provisions of this Code except the relevant provisions of:

- .1 Part 1, chapters 1.1, 1.2 and 1.3;
- .2 Part 2;
- .3 Part 3, chapters 3.1, 3.2, 3.3;
- .4 Part 4, 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8;
- .5 Part 5, 5.1.1 except 5.1.1.4, 5.1.2.3, 5.2.1.7, 5.2.1.9, 5.3.2.3, 5.3.2.4, and chapter 5.4;
- .6 Part 6, construction requirements of 6.1.4, 6.2.1.2 and 6.2.4;
- .7 Part 7, 7.1.3.2, 7.6.3.1 and 7.3 except 7.3.3.15 and 7.3.4.1.

LQ CHANGES: CHAP 3.4

3.4.2 Packing

3.4.2.1 Dangerous goods shall be packed only in inner packagings placed in suitable outer packagings. Intermediate packagings may be used. In addition, for articles of Division 1.4, Compatibility Group S, the provisions of section 4.1.5 shall be fully complied with. The use of inner packagings is not necessary for the transport of articles such as aerosols or “receptacles, small, containing gas”. The total gross mass of the package shall not exceed 30 kg.

3.4.2.2 Except for articles of Division 1.4, Compatibility Group S, shrink-wrapped or stretch-wrapped trays meeting the conditions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 are acceptable as outer packagings for articles or inner packagings containing dangerous goods transported in accordance with this chapter. Inner packagings that are liable to break or be easily punctured, such as those made of glass, porcelain, stoneware or certain plastics, shall be placed in suitable intermediate packagings meeting the provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8, and be so designed that they meet the construction requirements of 6.1.4. The total gross mass of the package shall not exceed 20 kg.

.....

3.4.3 Stowage

Dangerous goods packed in limited quantity are allocated stowage category A as defined in 7.1.3.2. The other stowage provisions indicated in column 16 of the Dangerous Goods List are not applicable.

- **SAAMI changes include 1.4S LQ remaining as spec packaging**
- **Note 3.4.3 stowage exception into Category A:**

LQ STOWAGE: CHAP 3.4

3.4.4 Segregation

...

3.4.4.2 The segregation provisions of chapter 7.2 are not applicable for packagings containing dangerous goods in limited quantities or in relation to other dangerous goods.

- **LQ Is Not Subject To Segregation**
- **Ammo Can Now Ship In The Same Container With Other Dangerous Goods, e.g. Aerosol And Flammable Liquid Accessories.**



LQ CHANGES: CHAP 7.1

7.1.3 Stowage categories

7.1.3.1 Stowage categories for class 1

Dangerous goods of class 1 **other than division 1.4, compatibility group S, packed in limited quantities** shall be stowed as indicated in column 16 of the Dangerous Goods List in accordance with one of the categories specified below.

Stowage category 01	Cargo ships	On deck in closed cargo transport unit or under deck
	(up to 12 passengers)	
	Passenger ships	On deck in closed cargo transport unit or under deck

.....

7.1.3.2 Stowage categories for classes 2 to 9

Dangerous goods of classes 2 to 9 **and division 1.4, compatibility group S, packed in limited quantities** shall be stowed as indicated in column 16 of the Dangerous Goods List in accordance with one of the categories specified below:

Stowage category A

Cargo ships or passenger ships carrying a number of passengers limited to not more than 25 or to 1 passenger per 3 m of overall length, whichever is the greater number } ON DECK OR UNDER DECK

Other passenger ships in which the limiting number of passengers transported is exceeded } ON DECK OR UNDER DECK

SOLAS

Safety of Life at Sea

SOLAS Chapter II-2 Regulation 19

Carriage of Dangerous Goods

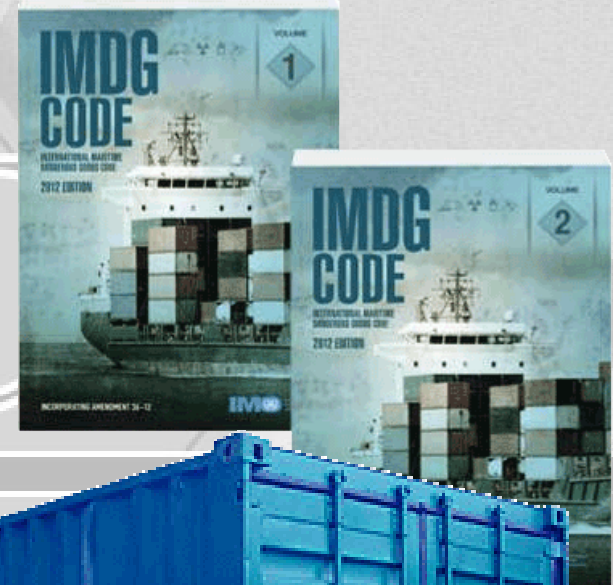
Purpose:

- Measures to address fire safety - Includes provisions
 - Water supplies, Sources of ignition, detection systems, ventilation, bilge pumping, fire extinguishers, insulating spray systems, etc.
- Document of Compliance
 - Based on construction criteria specifies where DG may be carried
- Limited Quantities
 - Excepted from SOLAS - Governed by IMDG Code



IMDG 1.4S LQ

- **No Label**
- **No Proper Shipping Name or UN#**
- **No Segregation!**
- **Stowage Category A**
- **SOLAS Exception**



LIMITED QUANTITIES

CARRIER INFORMATION						
PACKAGE		WEIGHT (In lbs)	H. M. (X)	COMMODITY DESCRIPTION <small>Commodities requiring special or additional care or attention or stowing must be so marked and packaged as to insure safe transportation with ordinary care. (See section 2(e) of NMFC item)</small>	LTL ONLY	
PCS	TYPE				NMFC	CLASS
3	CASES	24	X	UN0044, PRIMERS, CAP TYPE, 1.4S, PGII	64300.02	85
338	CASES	7,732		UN 0012, Cartridges, small arms, 1.4S, PG II, Ltd Qty		

- For air or vessel, the description of a “limited quantity,” must include the words “Limited Quantity” or “Ltd Qty” following the basic description.
- LQ exempted from shipping paper for ground shipments

CLASS 1 SEGREGATION

Segregation shall also take account of a single subsidiary risk label.

CLASS	1.1 1.2 1.5	1.3 1.6	1.4	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9	
Explosives	1.1, 1.2, 1.5	*	*	*	4	2	2	4	4	4	4	4	4	2	4	2	4	X
Explosives	1.3, 1.6	*	*	*	4	2	2	4	3	3	4	4	4	2	4	2	2	X
Explosives	1.4	*	*	*	2	1	1	2	2	2	2	2	2	X	4	2	2	X

The numbers and symbols in the table have the following meanings:

- 1 – “Away from”;
- 2 – “Separated from”;
- 3 – “Separated by a complete compartment or hold from”;
- 4 – “Separated longitudinally by an intervening complete compartment or hold from”.
- X – The Dangerous Goods List has to be consulted to verify whether there are specific segregation provisions.

- **1.4 very Restricted**
- **No Dispensation for 1.4S**



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SPORTING ARMS AND AMMUNITION MANUFACTURERS' INSTITUTE, INC.

SINCE 1926

2013 LOGISTICS SEMINAR

OCEAN FREIGHT DELAY & DENIAL

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SINCE 1926

**2013 LOGISTICS SEMINAR
- Ammunition & Components –**

OCEAN INITIATIVE

- ANALYSIS
- INFORMATION SHARING
- PARTNERSHIPS
- CHANGE



Port Policies

- National Explosives Legislation
- Class 1 Prohibitions
- Weight & Time Restrictions
- Night Movement Prohibition
- Special Docks & Berths
- Military Vs. Commercial
- End User Statement Formats Differ
- Written Permission Before Booking



NATIONAL/PORT REGULATIONS

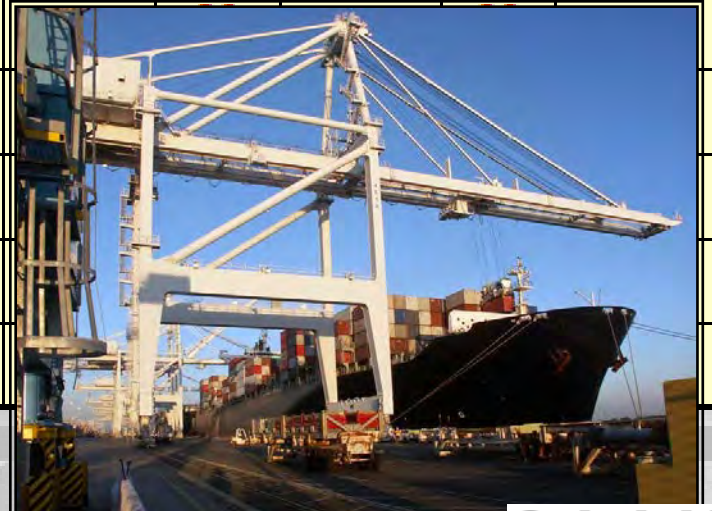
INHOUDSOPGAVE

SECTIE I	ALGEMENE VOORSCHRIFTEN VOOR HET BEHANDELEN VAN GEVAARLIJKE GOEDEREN IN DE HAVEN VAN ANTWERPEN.	1
	A. Index	1
	B. Algemene voorschriften voor het behandelen van gevaarlijke en/of verontreinigende goederen in de haven van Antwerpen	2
	C. Documentatie – Praktische Inlichtingen	3
SECTIE II	BIJZONDERE VOORWAARDEN VOOR HET BEHANDELEN VAN GEVAARLIJKE GOEDEREN OP DOORVOEROPSLAGPLAATSEN GELEGEN OP DE VOORKAAJEN.	4
	A. Index	4
	B. Bijzondere voorwaarden voor het behandelen van gevaarlijke goederen op doorvoeropslagplaatsen gelegen op de voorkaaien	5
	C. Documentatie – Praktische Inlichtingen	6
SECTIE III	BIJZONDERE VOORWAARDEN VOOR HET BEHANDELEN VAN GEVAARLIJKE GOEDEREN OP DOORVOEROPSLAGPLAATSEN GELEGEN OP DE ACHTERTERREINEN.	7
	A. Index	7
	B. Bijzondere voorwaarden voor het behandelen van gevaarlijke goederen op doorvoeropslagplaatsen gelegen op de achterterreinen	8
	C. Documentatie – Praktische Inlichtingen	9
SECTIE IV	BIJZONDERE BEPALINGEN VOOR HET BEHANDELEN VAN TECHNISCH ZUIVER AMMONIUMNITRAAT EN GELIJKGESTELDE MENGSELS IN DE HAVEN VAN ANTWERPEN.	10
	A. Index	10
	B. Bijzondere bepalingen voor het behandelen van technisch zuiver ammoniumnitraat en gelijkgestelde mengsels in de haven van Antwerpen	11
	C. Documentatie – Praktische Inlichtingen	12
SECTIE V	BIJZONDERE BEPALINGEN VOOR HET BEHANDELEN IN DE HAVEN VAN ANTWERPEN VAN AMMONIUMNITRAATMESTSTOFFEN samengesteld uit een luttel mengsel van ten hoogste 80% ammoniumnitraat en ten minste 20% fijn gemalen kalksteen, met een STIKSTOFGEHALTE (N) dat 28%, NIET OVERSCHRIJDT, die onthefing genieten voorzien in art. 2,b van het K.B. van 3/9/1958, gewijzigd bij K.B. van 12/1/1960.	13
	A. Index	13
	B. BIJZONDERE BEPALINGEN VOOR HET BEHANDELEN IN DE HAVEN VAN ANTWERPEN VAN AMMONIUMNITRAATMESTSTOFFEN samengesteld uit een luttel mengsel van ten hoogste 80% ammoniumnitraat en ten minste 20% fijn gemalen kalksteen, met een STIKSTOFGEHALTE (N) dat 28%, NIET OVERSCHRIJDT, die onthefing genieten voorzien in art. 2,b van het K.B. van 3/9/1958, gewijzigd bij K.B. van 12/1/1960.	14
	C. Documentatie – Praktische Inlichtingen	15

- National Explosives Legislation Varies
- Affects Port Regulations
- Difficulties in Obtaining
- Multiple Languages

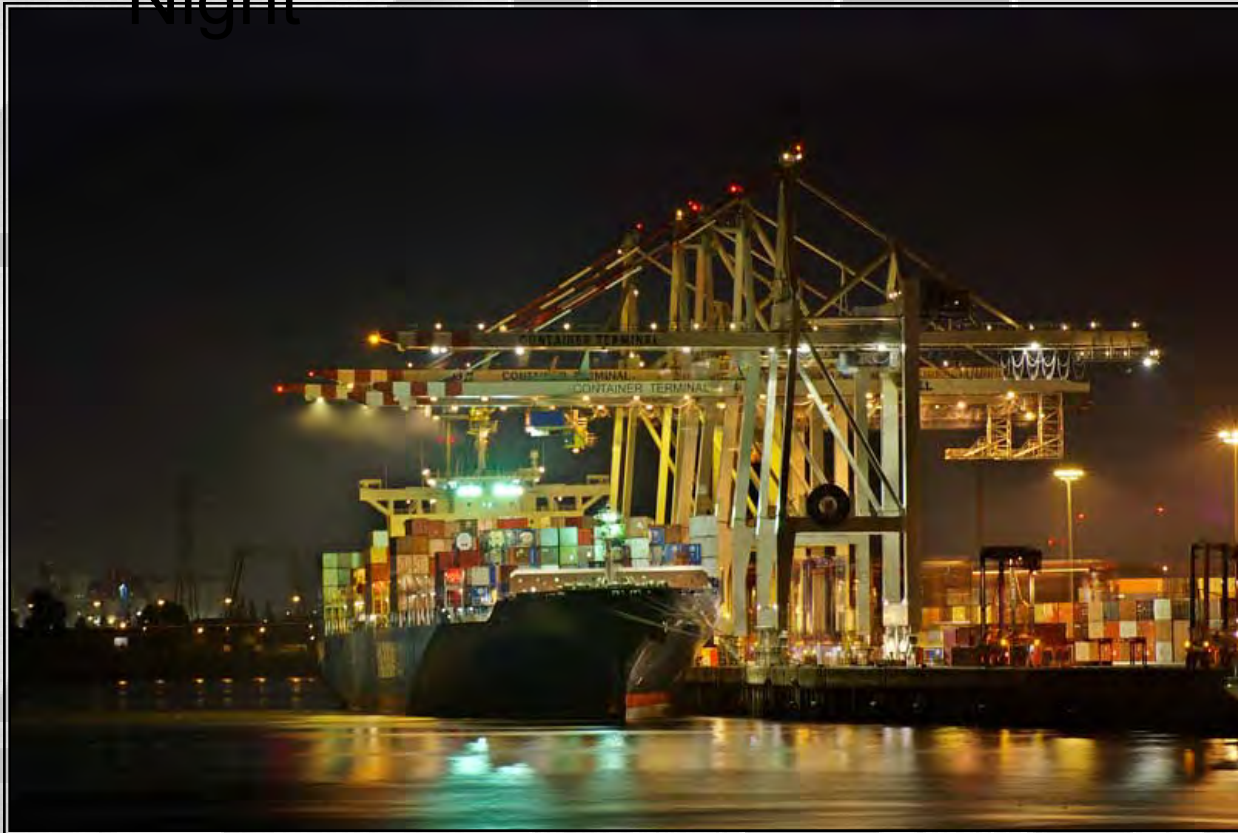
WEIGHT RESTRICTIONS

Class	OSAKA				KOBE				NAGOYA			
	Working		Entry		Working		Entry		Working		Entry	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
1	-	-	-	-	-	-	-	-	-	-	-	-
1.1	20	-	20	-	20	-	20	-	20	-	20	-
1.2	20	-	20	-	20	-	20	-	20	-	20	-
1.3	20	-	20	-	20	-	20	-	20	-	20	-
1.4	20	-	20	-	20	-	20	-	20	-	20	-
1.5	20	-	20	-	20	-	20	-	20	-	20	-
1.6	20	-	20	-	20	-	20	-	20	-	20	-



NIGHT PROHIBITION OF EXPLOSIVES LOADING

- Some Ports Do Not Allow Loading/Unloading at Night



LIGHTERING

- ❑ **Port Prohibitions May Require Lightering**
- ❑ **Container Removed Temporarily At Great Expense**
- ❑ **Trans-shipment And Barge Activity Create Additional Issues**



CHARTER SERVICE

- ❑ Liner Limitations May Be Solved By Feeder Charters
- ❑ May Triple The Cost

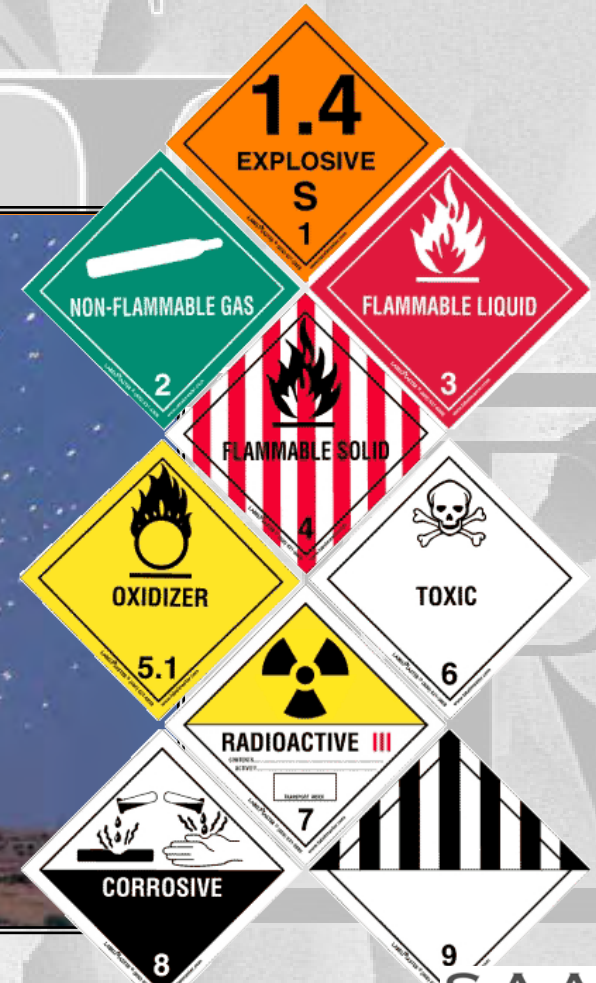


INEFFICIENCIES

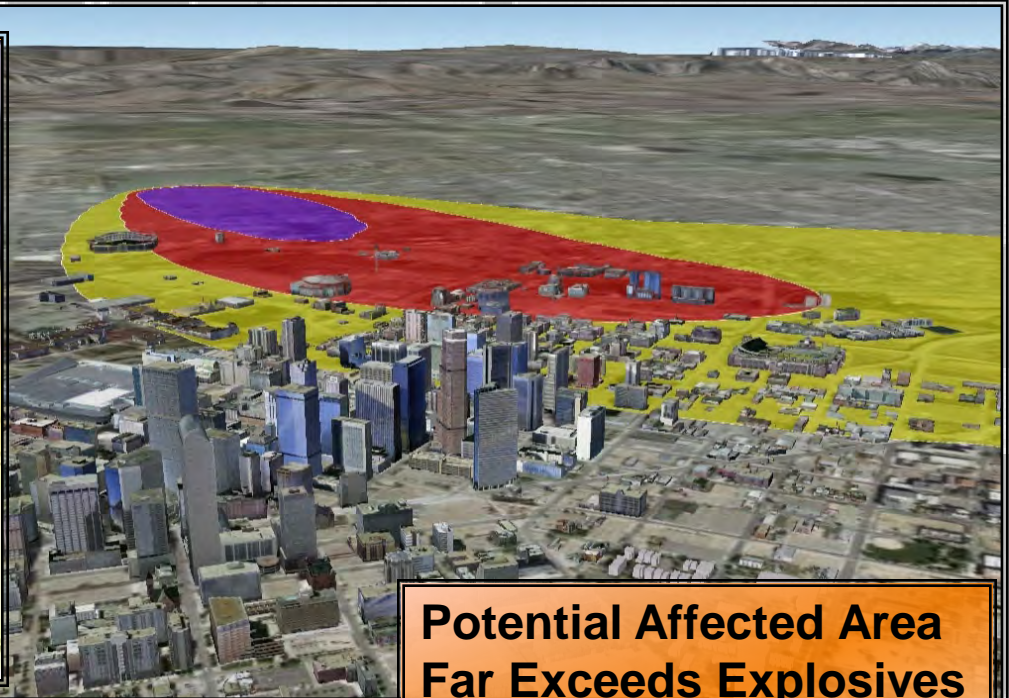
- ❑ Irregular scheduling interrupts supply
- ❑ Impossible to plan production of material (no Just-in-Time)
- ❑ Customer timing of proper paperwork filing at receiving port, critical since this material must leave ports immediately
- ❑ Lightering and Charter Service – Long Transit Times / High Cost (so high in most cases, we are not competitive)

Is CLASS 1 "The Worst"??

A Perception Exists
That Explosives Are
Far More Dangerous
Than All Other
Goods



HOWEVER...

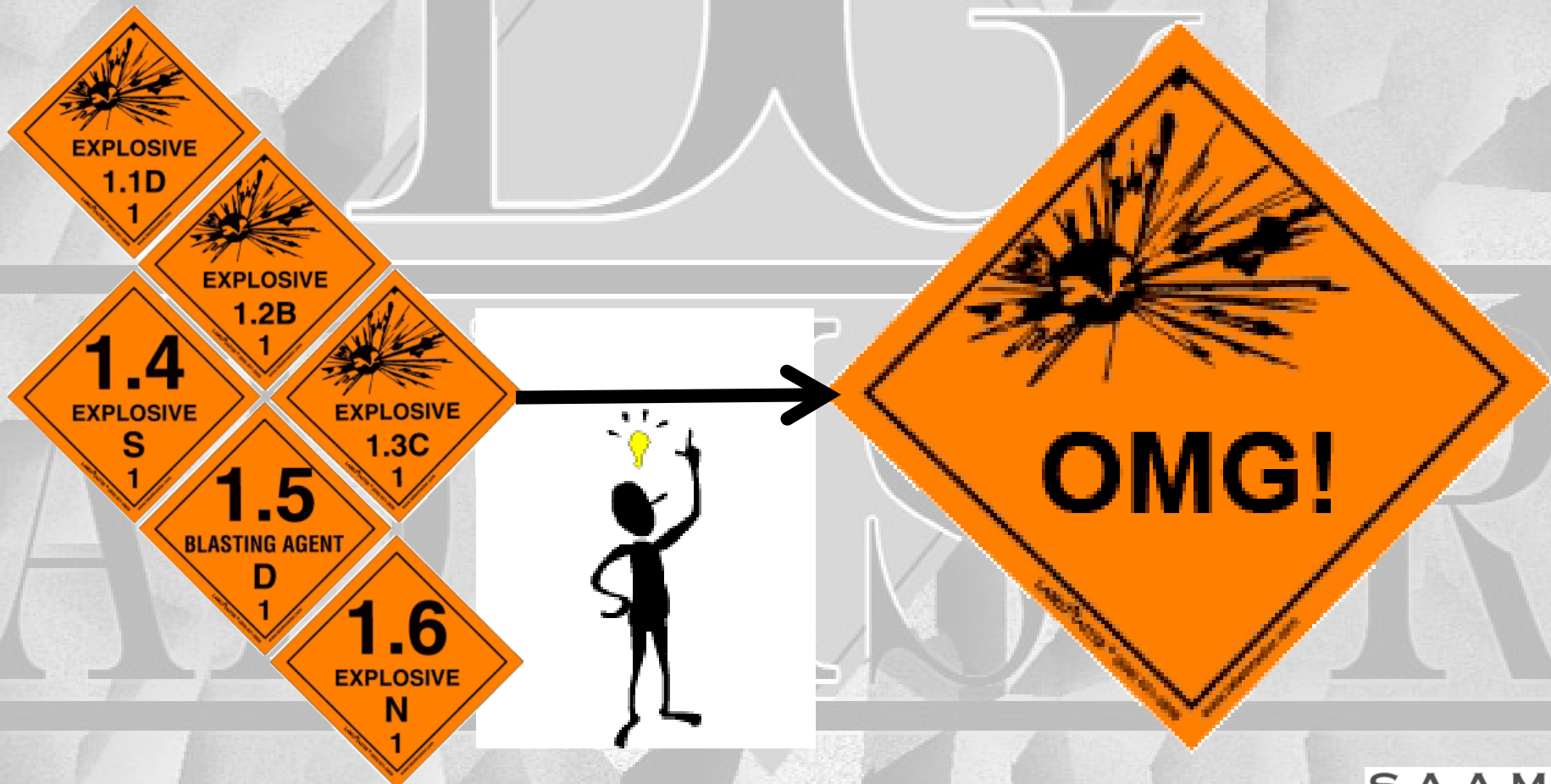


**Potential Affected Area
Far Exceeds Explosives**

- Chlorine Is Used To Treat Drinking Water & Prevent Disease, e.g. Cholera
- A Chlorine Plume From A Transport Incident Can Far Exceed The Consequences Of Any Explosive

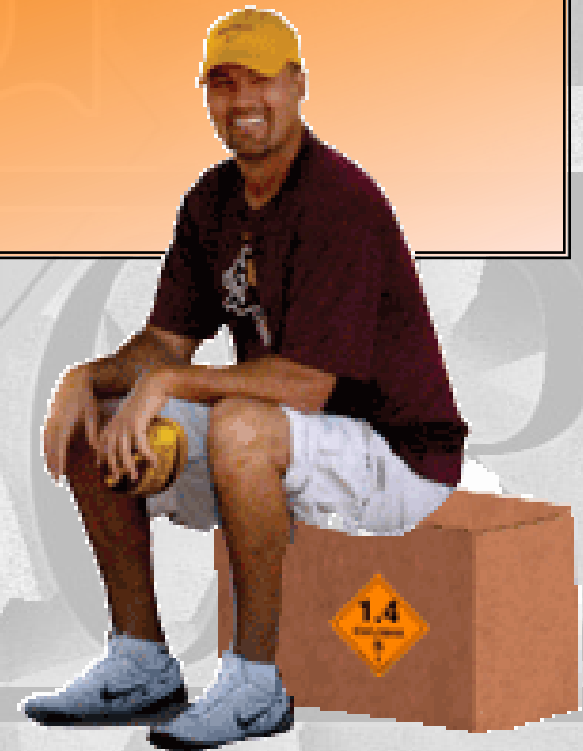
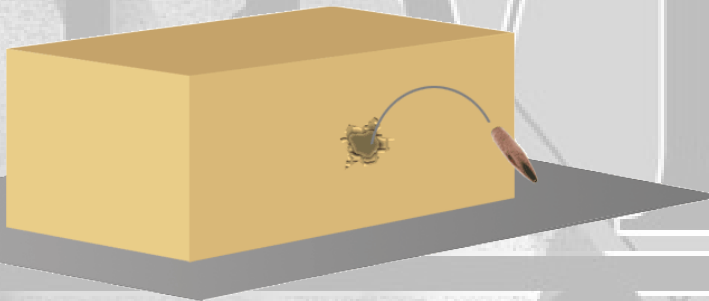
I SEE ORANGE!

- Explosives Vary Widely
- People See Orange And Don't Differentiate



1.4S DEFINITION

Substance or article so packed or designed that (1) any **hazardous effects** arising from accidental functioning are **confined within the package** (2) unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they **do not significantly hinder or prohibit fire fighting** or other emergency response efforts in the **immediate vicinity** of the package. *(Italics added)*



FIRE FIGHTING

- Fire Fighting Allowed For Dangerous Goods
- “S” Is Only Explosive For Which A Fire May Be Combated

2008 Emergency Response Guidebook



A GUIDEBOOK
FOR FIRST RESPONDERS
DURING THE INITIAL PHASE
OF A DANGEROUS GOODS/
HAZARDOUS MATERIALS
INCIDENT



BONFIRE TEST 6(c)



All blast or projection effects ... do not significantly hinder or prohibit fire fighting or other emergency response efforts in the immediate vicinity of the package.

1.4S CRITERIA:

- No Mass Explosion
- No Metal Projectiles Hazardous To Fire Fighters
- No Flame Balls >4m Diameter
- No Fiery Projections >5m
- Must Burn >330

DEREGULATION

CLASS 3 EXAMPLE

2.3.2.6 Hazard grouping based on flammability

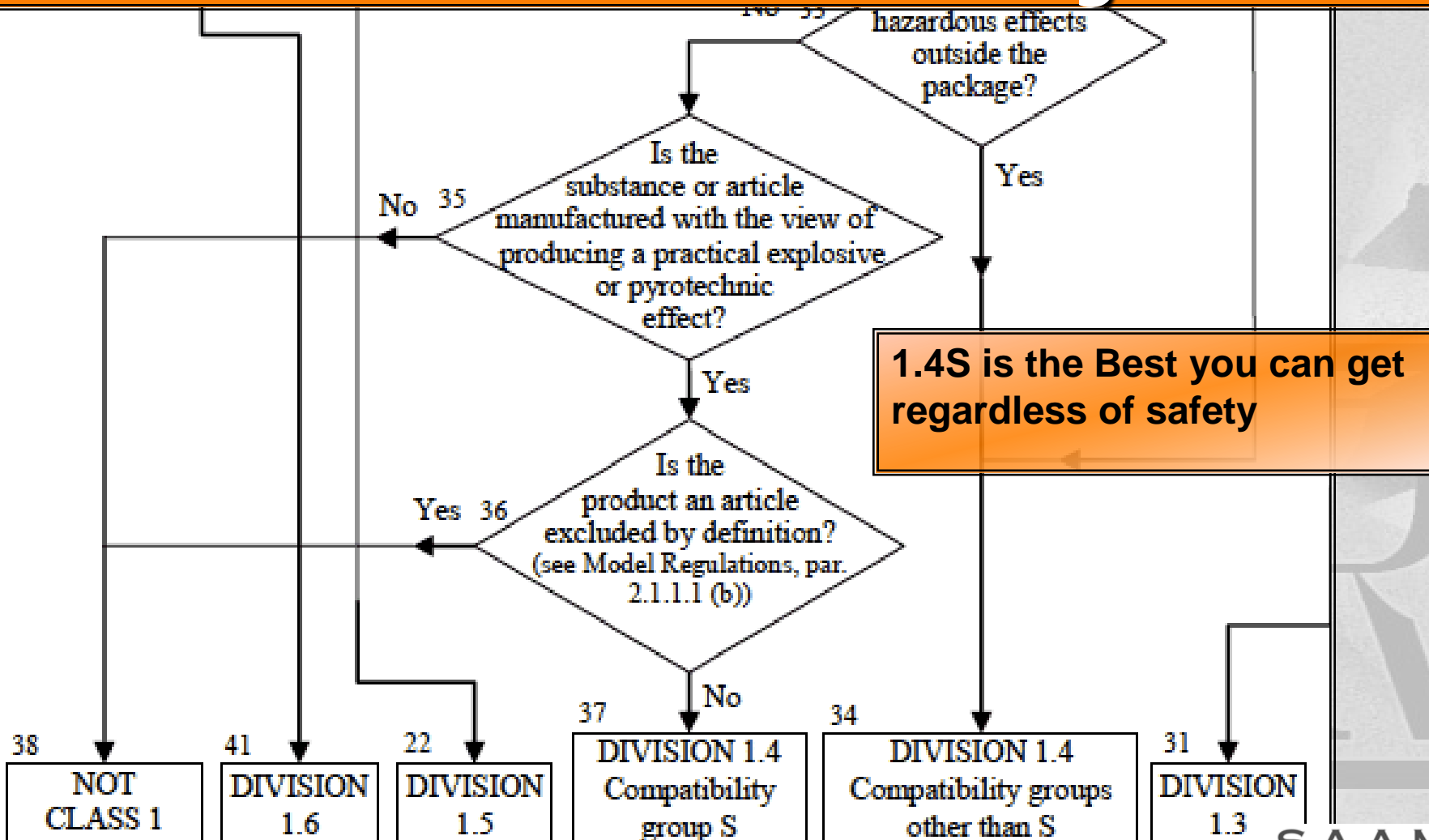
Packing group	Flash point (closed-cup)	Initial boiling point
I	--	≤ 35 °C
II	< 23 °C	> 35 °C
III	≥ 23 °C ≤ 60 °C	> 35 °C

CLASS 6 EXAMPLE

GROUPING CRITERIA FOR ADMINISTRATION THROUGH ORAL INGESTION, DERMAL CONTACT AND INHALATION OF DUSTS AND MISTS

Packing group	Oral toxicity LD ₅₀ (mg/kg)	Dermal toxicity LD ₅₀ (mg/kg)	Inhalation toxicity by dusts and mists LC ₅₀ (mg/l)
I	≤ 5.0	≤ 50	≤ 0.2
II	> 5.0 and ≤ 50	> 50 and ≤ 200	> 0.2 and ≤ 2.0
III ^a	> 50 and ≤ 300	> 200 and ≤ 1 000	> 2.0 and ≤ 4.0

Class 1 - No Deregulation Based on Safety



OTHER DG MAY FAIL 1.4S



NON-DG FAIL 1.4S

“...unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they do not significantly hinder or prohibit fire fighting or other emergency response efforts in the immediate vicinity of the package.”



LQ Versus Vessel Delay & Denial

CLASS	1.1 1.2 1.5	1.3 1.6	1.4	1.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9
Explosives 1.1, 1.2, 1.5	*	*	*	4	2												
Explosives 1.3, 1.6	*	*	*	4	2												
Explosives 1.4	*	*	*	2	1												
Flammable gases 2.1	4	4	2	X	X												
Non-toxic, non-flammable gases 2.2	2	2	1	X	X												
Toxic gases 2.3	2	2	1	X	X												
Flammable liquids 3	4	4	2	2	1												
Flammable solids (including self-reactive substances and solid desensitized explosives) 4.1	4	3	2	1	X												
Substances liable to spontaneous combustion 4.2	4	3	2	2	1												
Substances, which on contact with water, emit flammable gases 4.3	4	4	2	X	X												
Oxidizing substances (agents) 5.1	4	4	2	2	X												
Organic peroxides 5.2	4	4	2	2	1												
Toxic substances 6.1	2	2	X	X	X												
Infectious substances 6.2	4	4	4	4	2												
Radioactive material 7	2	2	2	2	1												
Corrosive substances 8	4	2	2	1	X												
Miscellaneous dangerous substances and articles 9	X	X	X	X	X												

- X's Are Good
- Numbers Mean Not In The Same Container
- 1.4S ships with 6.1 & 9 only
- LQ ships with EVERYTHING



STOWAGE CATEGORY A

Stowage category 01

Cargo ships (up to 12 passengers)

On deck in closed cargo transport unit or under deck

Passenger ships

On deck in closed cargo transport unit or under deck

Stowage category A

Cargo ships or passenger ships carrying a number of passengers limited to not more than 25 or to 1 passenger per 3 m of overall length, whichever is the greater number

} ON DECK OR UNDER DECK

Other passenger ships in which the limiting number of passengers transported is exceeded

} ON DECK OR UNDER DECK

- **3.4.3 Stowage** Dangerous goods packed in limited quantity are allocated stowage category A as defined in 7.1.3.2. The other stowage provisions indicated in column (16) of the Dangerous Goods List are not applicable.
- **No CTU Required - Ferries**

“Safe Transport of Dangerous Cargoes In Port Areas”

“The regulatory authority should grant any exemption necessary from their requirements in the case of explosives in class 1, division 1.4, compatibility group S in accordance with the IMDG Code.”

6

GENERAL RECOMMENDATIONS FOR REGULATORY AUTHORITIES, PORT AUTHORITIES, SHIPS, BERTH OPERATORS AND CARGO INTERESTS

6.1 Regulatory authorities and port authorities

6.1.1 Acceptability of dangerous cargoes in port areas

6.1.1.1 The *regulatory authority* should determine the classes and quantities of *dangerous cargoes* which may be permitted to transit or to enter a *port area* by any mode of *transport* and the conditions under which they are to be handled, having regard to the facilities available for the reception and keeping of *dangerous cargoes* and the location of the *port area* in relation to nearby installations and centres of population. The *regulatory authority* should make such information available in the national and, where appropriate, English languages.

Safe Transport of Dangerous Cargoes in Port Areas

12 EXPLOSIVES IN CLASS 1, DIVISION 1.4, COMPATIBILITY GROUP S

12.1 The regulatory authority should grant any exemption necessary from their requirements in the case of explosives in class 1, division 1.4, compatibility group S, in accordance with the IMDG Code.

FAL. 6 CIRCULAR 15

ANNEX

ADVICE ON THE SHIPMENT OF DANGEROUS CARGOES AND, IN PARTICULAR, SPORTING AMMUNITION AND RELATED COMPONENTS (IMDG CODE DIVISION 1.4S)

General

1 Shipments of dangerous cargoes, including IMDG Code division 1.4S materials, when carried in bulk, should comply with the relevant provisions of SOLAS Chapter VII, the IMDG Code and the relevant provisions of the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air, and related administrative requirements. IMDG Code division 1.4S dangerous cargoes and related administrative requirements in port areas (MSC/Circ. 675, as amended), should be considered as meeting the necessary safety requirements.

Specific advice

2 Materials of IMDG Code division 1.4S are recognized worldwide as being among the safest products of their nature. These materials are so packed and designed that any hazardous effects arising from accidental functioning are confined within the packages unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they do not scientifically hinder fire-fighting or other emergency operations.

“The Committee remains concerned about the potential adverse effects the denial of shipment of dangerous cargoes might have on international trade and expeditious handling and shipment of such cargoes.”

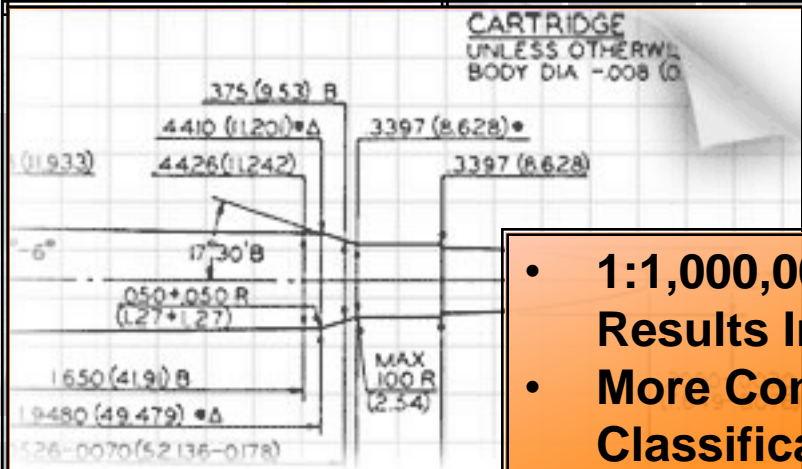
materials, IMDG Code division 1.4S dangerous cargoes meeting the

the safest packed and

Ammunition Is Different



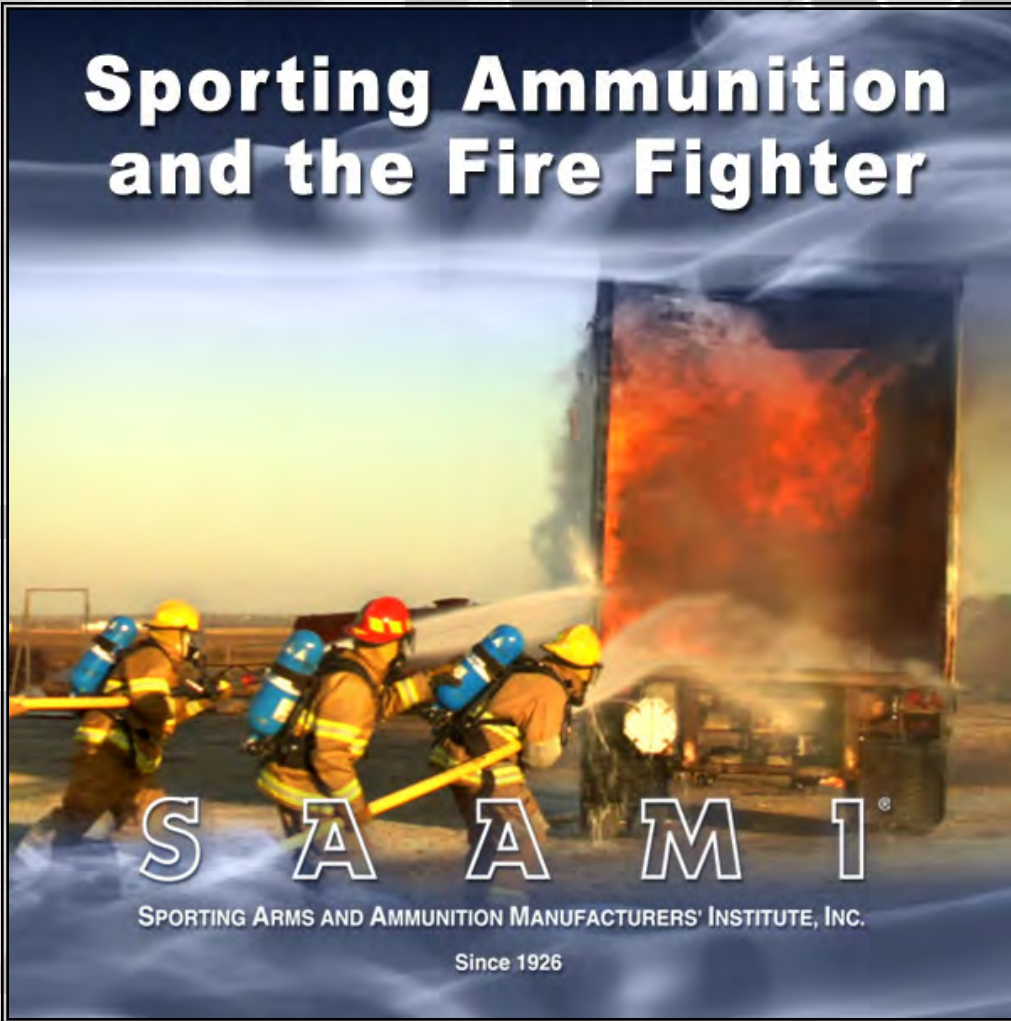
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- 1:1,000,00 Firearm Failure Rate Results In Recall
- More Controlled Than Classification Tests.

SAAMI VIDEOS

Sporting Ammunition and the Fire Fighter



- Unlikely To Ignite
- Regardless of Packaging:
 - Does Not Propagate
 - No Mass Explosion
- Fire Fighters Can Control Large Fire In 10 Seconds

SAAMI Video Training Tool



BALLISTICS
BRAND: REMINGTON
SHELL: 12 GAUGE 2 3/4"
SHOT: 1/2 OUNCE #8 LEAD
PROPELLANT: 6 GRAMS



UN 0161 Powder, smokeless



- **Tens of Millions Lbs. Transported Safely Annually**
- **2.5 Million Lbs. Per Year By Ocean.**
- **Propellant Producers Are Major US**

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Modern Process

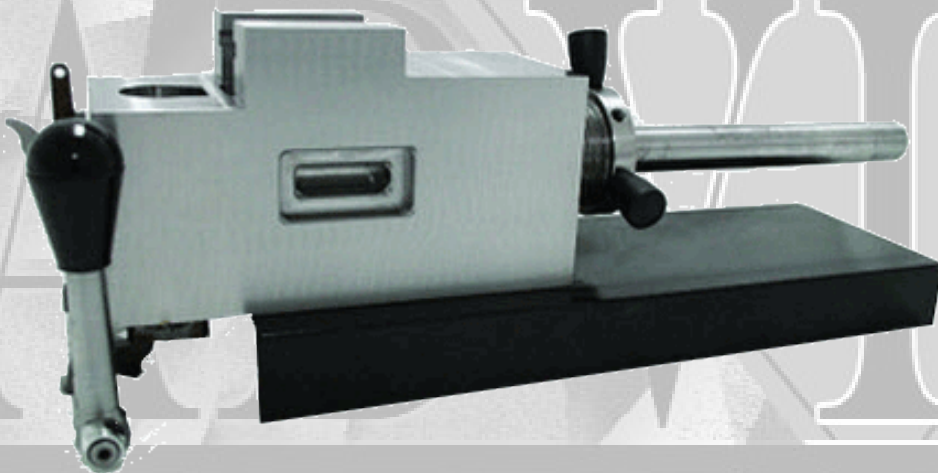
- **All Process Variables Rigorously Controlled.**
- **Computer Controlled Systems**
- **Statistics Process Control**
- **Thorough In-Process Testing.**



Quality Control

Finished Propellants Undergo Complete Acceptance Testing.

- **Product Stability**
- **Chemical Composition**
- **Physical Specifications**
- **Ballistics.**



UN Classification Testing

- All Propellants Meet UN Test Series 3 & 6
- Competent Authority Approved



Tight Specifications



Illustration of a propellant grain cross section

- **ISO 9001 (Quality System)**
- **ISO 14001 (Environmental System)**
- **OHSAS 18001 (Safety System).**
- **Registrar Performs 6-Month Audits**

UN 0161 Powder, Smokeless

- Loads Are Containerized In Accordance With All Applicable Specifications.
- Each Container Inspected And Accepted Prior To Release For Shipment.



INTERMODAL LOADING GUIDE for Products in Closed Trailers and Containers



Association of American Railroads

CONCLUSION

- ANALYSIS
- INFORMATION SHARING
- PARTNERSHIPS
- CHANGE





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