CARTRIDGES, SMALL ARMS

Mode of Transportation: International Air - Passenger and Cargo Aircraft

This is not an official document. It may be used for quick reference but is not intended to guarantee regulatory compliance.

PRODUCT OVERVIEW

Proper Shipping Name	Cartridges, small arms	Cartridges, small arms									
Identification Number	UN0012 Hazard Class 1.4S										
Commodity	primer and containing bot are designed to be fired ir Shotgun cartridges of any excludes: <i>Cartridges, sma</i>	a cartridge case fitted with a charge and soling charge and soling weapons of caliber not large caliber are included in this dell arms, blank, and some militartridges for weapons, inert pro	d projectile(s). They r than 19.1 mm. escription. The term ary small arms								

Executive Summary

The package, overpack and shipping paper should appear like the images below. The UN number, proper shipping name, hazard label, address, and net quantity should be located together, printed on or affixed to a side or top of the outer packaging.

Package Approach

Minimum Package Marking



Typical Pallet Overpack



Completing a Dangerous Goods Declaration (DGD)

Below is an example of how to complete the Dangerous Goods Declaration (DGD) for this scenario.

	Dangerous Goods Id					
UN or ID No.	Proper Shipping Name	Class or Division (subsidiary hazard)	Packing Group	Quantity and Type of Packing	Packing Inst.	Authorization
UN0012	Cartridges, small arms	1.4S		40 Fiberboard Boxes X 12.35 kg, 1.2 kg NEM Overpack Used Total Net City 494 kg, 48 kg NEM		These articles are of the kind described in 49 CFR § 173.56(h), and are authorized by USG-05 without documentation.

^{*}Reference the Shipping Paper Requirements section of this document for additional details.

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DANGEROUS GOODS LIST

UN/ID	UN/ID Proper Shipping no. Name/Description	Class	Hazard Label(s)			Passe	nger & Carg	o Aircraft	Cargo Ai	rcraft Only			
		or Div.		PG	EQ	Ltd Qty			Max			S.P See	ERG
no.		(Sub Risk)			See 2.6	Pkg Inst	Max Net Qty/Pkg	Pkg Inst	Net Qty/Pkg	Pkg Inst	Max Net Qty/Pkg	4.4	Code
A	В	С	D	E	F	G	н	I	J	К	L	М	N
0012	Cartridges, small arms †	1.48	Explosive 1.4		E0	E0 Forbidden		130	25 kg	130	100 kg	A802	3L

Any blank column of the Dangerous Goods List is not applicable.

Citation: IATA 4.2 - List of Dangerous Goods

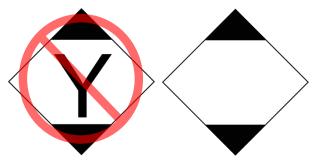
175.75 ACCESSIBILITY RESTRICTION FOR U.S.A. AIR SHIPMENTS

The U.S.A. (and no other country) has a special 25 kg net limitation on the amount of hazardous materials allowed on an aircraft when loaded in an inaccessible manner. The requirement is applied to international air shipments by U.S. Variation 13 for shipments to, from, or transiting the U.S.A.

The requirement is triggered when the hazmat is not accessible to the crew, e.g., the compartments in the belly of a passenger aircraft, or after the first row in a cargo aircraft using freight containers. Theoretically it is helpful if a crew member could access the freight during flight to mitigate a burning or leaking package, e.g. use a fire extinguisher.

While the accessibility requirement applies to all aircraft, the requirement is difficult or impossible to meet for passenger aircraft. The U.S.A. has a robust cargo aircraft network, but this is not true of the world in general. Passenger aircraft is normally the only way to get to commercially remote destinations, via the national passenger airline, e.g. Malaysia Airlines to get to Malaysia, or Turkish Airlines to get to Turkey. It is often difficult to switch airlines once outside the U.S.A. due to chain-of-custody requirements of the U.S.A. export regulations. Therefore the accessibility requirement impedes trade with remote locations.

Certain hazardous materials are excepted from this requirement, e.g., LQ (UN 0012), blank ammo (UN 0014), and empty primed cartridges (UN 0055). To qualify, the <u>packages should have the LQ mark</u> in accordance with 49 C.F.R. § 173.63(b)(1)(i), even though the shipment is being sent as fully regulated 1.4S. Packages not meeting § 173.63(b)(2) limited quantity requirements are not eligible and should not have the LQ mark.



should not be used.

The LQ-Y mark is allowed for air shipments in the U.S.A., but is not recommended. The LQ-Y mark is prohibited for international air shipments of ammo, because LQ air is prohibited by international air for ammunition.

If an LQ-Y package is offered for international air transport, it could result in large fines. Instead, use the method in this transport data sheet for international air to make U.S. domestic air shipments.

The LQ surface mark is allowed for air transport in the U.S.A., and is allowed and ignored for international air. Some air carriers do not accept this, but all should accept the method in this TDS. The surface LO mark should always appear on LO ammo, and the LO-Y mark

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This method also allows the ammo to be shipped by ground as LQ before and after the air leg of multi-modal journeys. For these ground legs, enforcement in some jurisdictions previously did not allow voluntary application of the 1.4S label on LQ packages, so text was introduced into the UN and ADR specifically allowing LQ transport of packages marked with both the LQ mark and 1.4S label. See United Nations Model Regulations § 3.4.8.1; ADR § 3.4.8.1.

Citations: $49 \text{ C.F.R.} \S\S 173.63(b)(1)(i)$, 173.63(b)(2), 175.75(c), 175.75(d)(1), 175.75(e)(1), 175.75(f)(Note 1)(e).

CLASSIFICATION

Cartridges, small arms, 50 caliber or less, with inert bullets (including tracers, but no incendiary or exploding bullets) may be self-classified by the manufacturer as UN0012, Cartridges, small arms, Division 1.4S explosive per 49 C.F.R. § 173.56(h). No EX-approval is required. Carriers may think that an EX approval is required, so this transport data sheet shows a dangerous goods declaration that points them to USG-05, the U.S. variation that requires an EX approval for shipping explosives but excepts certain ammunition.

Citation: 49 CFR § 173.56(h)

SEGREGATION

Dangerous goods are subject to segregation requirements at the package, overpack (e.g., pallet) and conveyance (e.g., aircraft) levels. Below is the IATA Segregation of Hazardous Materials Table 9.3.A. Some goods may be packaged together in the same package, but this is often restricted by packaging testing requirements.

- Some dangerous goods may be overpacked together.
- Some dangerous goods which can't be overpacked together can be transported together.
- Some dangerous goods may not be transported together.

HAZARD LABEL	1 excl. 1.4S	2.1	2.2, 2.3	3	le 9.3.A Seg 4.1	4.2	4.3	5.1	5.2	8	9 see 9.3.2.1
1 excluding 1.4S	See 9.3.2.2.5	(X)	(X)	(X)	×	(X)	×	(X)	(X)	(X)	X
2.1	\otimes	>	<	V	\	V	\	V	V	>	⊗
2.2 2.3	\otimes	>	<	V	>	>	>	>	>	>	V
3	\otimes	>	>	V	V	\	V	※	>	V	8
4.1	\otimes	>	<	V	\	>	V	\	>	V	⊗
4.2	※	>	V	V	V	V	V	⊗	V	V	V
4.3	\otimes	>	V	V	V	V	V	V	V	8	V
5.1	※	>	V	8	V	(X)	V	V	V	V	⊗
5.2	\otimes	>	V	V	V	V	V	V	V	V	V
8	\otimes	V	V	V	V	V	(X)	V	V	V	V
9 see 9.3.2.1.3	\otimes	\otimes	V	\otimes	×	V	V	×	V	V	V

Citation: IATA 9.3.2.2 - Separation of Explosive Substances and Articles

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Packages

Do not pack other goods with ammunition.

Citation: IATA Section 6.

OVERPACK

When consolidating two or more packages into an overpack, whether a pallet or another package, the shipper must ensure that the materials are in compliance with the Segregation and Compatibility Tables listed above, and are permitted to travel aboard the same aircraft type.

Note 2 to Table 9.3.A states, "Divisions 1.4S and Classes 6, 7 and 9 (other than lithium batteries, see 9.3.2.1.3) are not included in Table 9.3.A as they do not require segregation from other classes of dangerous goods."

Citation: IATA 9.3.2.2.5

Stowage in the Same Aircraft

See IATA 9.3.2.2.5.

Citation: Section 9.3.2.1.1; Table 9.3.A.

PACKAGING INFORMATION

Packing Instruction 130

1. Pursuant to the package weight limit in the Dangerous Goods Table, the net quantity per package must not exceed 25 kg.

This instruction applies to explosives on passenger and cargo aircraft and Cargo Aircraft Only.

The General Packing Requirements of Subsection 5.0.2, 5.1.0 and 5.1.1 must be met.

Unless otherwise provided for in these Regulations, packagings must meet Packing Group II performance standards.

Inner packagings are not required.

Intermediate packagings are not required.

OUTER PACKAGINGS

Туре	Drums						Boxes							
Desc.	Steel	Alu- min- ium	Plywood	Fibre	Plastic	Other metal	Steel	Alu- min- ium	Wood	Plywood	Reconstituted wood	Fibreboard	Plastic	Other metal
Spec.	1A1 1A2	1B1 1B2	1D	1G	1H1 1H2	1N1 1N2	4A	4B	4C1 4C2	4D	4F	4G	4H1 4H2	4N

- 2. In addition to meeting the requirements of Packing Instruction 130, packages must meet the limited quantity requirements of 49 C.F.R. § 173.63(b).
 - a. The following products may be shipped as a Limited Quantity:

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- (ii) Cartridges, small arms, Cartridges, power device (used to project fastening devices), Cartridges for tools, blank, and Cases, cartridge empty with primer that may be shipped as a limited quantity are as follows:
 - (A) Ammunition for rifle, pistol or shotgun;
 - (B) Ammunition with inert projectiles or blank ammunition;
 - (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;
 - (E) Cartridges for tools, blank; and
 - (F) Cases, cartridge, empty with primer.
 - (G) Cartridges, power device (used to project fastening devices).
- b. The following packaging requirements apply:
- (2) Packaging for Cartridges, small arms, Cartridges for tools, blank, Cases, cartridge empty with primer, and eligible Cartridges, power device as limited quantity must be as follows:
 - (i) Ammunition must be packed in inside boxes, or in partitions that 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 for tools, blank, Cartridges, power devices which are used to project fastening devices, Cases, cartridge, empty with primer, and 22 caliber rim-fire cartridges may be packaged loose in strong outside packagings.

Special Provision A802

1. The package must be tested and certified not to leak under normal transport conditions at the PG II level.

A802 Notwithstanding the absence of a packing group in column E, substances and articles assigned to these entries must be packed in UN Specification packagings that meet packing group II performance standards. This does not apply when aerosols are prepared for transport in accordance with the limited quantity provisions or for lithium batteries prepared in accordance with Section IB of Packing Instructions 965 or 968.

Citation: IATA Packing Instruction 131; IATA Special Provision A802; 49 C.F.R. § 173.63(b)

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PACKAGE LABELING & MARKING

Below is a summary of the marking requirements for the package.





Generally, all marks and the 1.4S hazard label should be on one panel, except the ground LQ mark and package test certification. The top is often the best panel to use.

The marks must be at least 6mm (1/4") tall, or an appropriate size for packages which are ≤ 5 kg net

Application of Label & Marking

The following label(s) and/or mark(s) are required for this package. Labels and marks can be pre-printed or affixed as stickers. Stickers must not wrap around an edge and must be affixed relatively straight.

1. UN Number

A UN number, or United Nations identification number, is a four-digit code that identifies dangerous goods for transportation.

2. Proper Shipping Name

A proper shipping name (PSN) is a standardized name used to identify a dangerous good during transportation.

3. Consignor and consignee's name & address

The package must be marked with the consignor and consignee's name and address.

4. Net quantity

The net quantity of hazardous materials contained in the package must be marked on the package. Additionally, the net quantity must be "adjacent to" the UN number and PSN, in other words, on the same panel.

5. A specification package must be used with the package test certification mark affixed Class 1 Explosives must meet the Packing Group II package testing requirements as listed in 49 CFR 178 Subpart M – Testing of Non-Bulk Packagings and Packages.

6. 1.4S Hazard Label

The hazard label communicates the class and division, and for explosives, the compatibility group.

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7. Ground Limited Quantity Mark

This mark allows for Limited Quantity shipments via road for the road segments of the shipment, and serves as a stamp of approval that the package meets the requirements of 49 C.F.R. § 173.63(b) for the air segment.

Citation: IATA Section 7 - Marking & Labeling

OVERPACKS

An overpack is an enclosure that is used by a single consignor to provide protection or convenience in handling of a package or to consolidate two or more packages. Overpack does not include a transport vehicle, freight container, or aircraft unit load device. Examples of overpacks are one or more packages:

- 1. Placed or stacked onto a load board such as a pallet and secured by strapping, shrink wrapping, stretch wrapping, or other suitable means; or
- 2. Placed in a protective packaging such as a box or crate.

Packages in an overpack must be prepared such that they could be compliantly transported without the overpack, including any required marks and hazard or handling labels.

When preparing an overpack:

- Overpacks must not be marked with a package test certification unless they are tested.
- The overpack must be marked "OVERPACK" when a package test certification mark is required on a package inside the overpack. This is not required if the UN number, proper shipping name and hazard label are visible at least once from the outside of the overpack.
 - o For example, EX numbers do not need to be replicated on overpacks.
- When the OVERPACK mark is required, also replicate the UN number, proper shipping name and hazard label on the overpack.
- When required, the word OVERPACK shall be at least 12 mm (1/2") high, preferably 1 inch tall.
- The OVERPACK mark may have a border, but it is not required.
- If there is more than one UN number in an overpack, write each UN number and the total quantity of dangerous goods for each UN number.
- If there are two or more overpacks, name and mark each pallet with a unique identification mark (which may be in any alpha-numeric format) and the total quantity of dangerous goods, as indicated on the Dangerous Goods Declaration.

Example of the OVERPACK mark



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Since there is so much information required, shippers may find it more convenient to print "OVERPACK" on a piece of paper instead, with "OVERPACK" and the UN number at least $\frac{1}{2}$ " tall, and affix the paper to each pallet as described on the shipper's declaration (see examples below).

Single overpack shipment label example

OVERPACK

FROM: Company Name Street Address City, State Zip Country

TO: Bristol Supply 42 Victoria Road London, LND NW4 2RP United Kingdom

UN 0012

Cartridges, small arms

Multiple overpack shipment label examples

OVERPACK #1

FROM: Company Name Street Address City, State Zip Country

TO: Bristol Supply 42 Victoria Road London, LND NW4 2RP United Kingdom

UN 0012

Cartridges, small arms

OVERPACK #2

FROM: Company Name Street Address City, State Zip Country

TO:
Bristol Supply
42 Victoria Road
London, LND NW4 2RP
United Kingdom

UN 0012

Cartridges, small arms

OVERPACK #3

FROM: Company Name Street Address City, State Zip Country

TO:
Bristol Supply
42 Victoria Road
London, LND NW4 2RP
United Kingdom

UN 0012

Cartridges, small arms

OVERPACK #4

FROM: Company Name Street Address City, State Zip Country

TO: Bristol Supply 42 Victoria Road London, LND NW4 2RP United Kingdom

UN 0012

Cartridges, small arms

Citation: IATA 7.1.7 - Markings of Overpacks

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Overpack Example



When overpacking one or more packages onto a pallet, secure the packages with either strapping or stretch wrap.

If the marks or labels can't be seen, e.g., when using black or other opaque stretch wrap, apply the following:

Labels:

1. 1.4S hazard label

Marks:

- 1. OVERPACK (at least 12 mm/1/2" high)
- 2. UN number (at least 12 mm/1/2" high)
- 3. Proper shipping name
- 4. Limited Quantity mark
- 5. Full name and address of the shipper and consignee

If transparent stretch wrap is used, and you can see the label, UN number, proper shipping name, and LQ mark at least once through the stretch wrap, then no action is required.

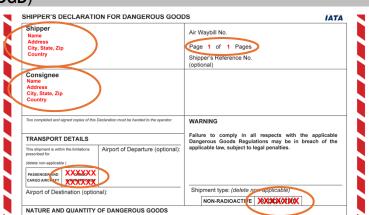
SHIPPING PAPER REQUIREMENTS

International air transport is subject to the requirements of the International Civil Aviation Organization (ICAO) regulations and the International Air Transport Association (IATA). A special document is required, referred to as a **Dangerous Goods Declaration (DGD)**. This document is required in addition to any standard Bill of Lading (BOL) that would be completed by the shipper.

Completing a Dangerous Goods Declaration (DGD)

Shipper & Consignee Information

- 1. Enter the SHIPPER information
- 2. Enter the **CONSIGNEE** information
- Enter the number of PAGES
- Select PASSENGER AND CARGO AIRCRAFT by typing X's over CARGO AIRCRAFT ONLY
- 5. Ensure that you place X's over **RADIOACTIVE** section below the warning statement.



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Nature & Quantity of Dangerous Goods Sequence 1 – Dangerous Goods Identification

- 1. The sequence is: "UN 0012, Cartridges, small arms, 1.45".
- 2. There is no packing group for this dangerous good.

Sequence 2 – Number and Type of Packagings, Quantity of Dangerous Goods

- 1. The sequence is QUANTITY / PACKAGING MATERIAL & TYPE X NET QUANTITY / UNITS, e.g. "40 fiberboard boxes X 12.35 kg, 1.2 kg NEM". Quantity is the number of shipping cases (packages). The degree of rounding is not specified, but may be to the nearest kilogram, and should be consistent between the DGD and the package and overpack markings. Packaging type is material and type, e.g. "fiberboard boxes" or "steel drums". Do not abbreviate or use packaging type codes here. Metric units must be used, which for solids is lower case "kg", not "KG". For ammunition, net explosive mass (NEM) is the powder and primer mix; however the amount of primer mix is often only 1/100th of the powder and may be lost in the rounding.
- 2. For multiple products, each change to Sequence 2 must be on a different line, e.g. different net weight, but Sequence 1 does not have to be repeated if it is still valid. See IATA DGR Figure 8.1.K.

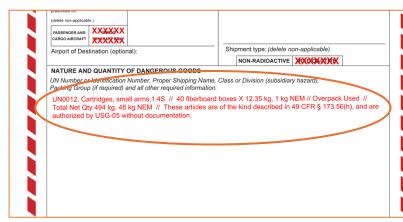
Sequence 3 - Packing Instructions

1. Write the number of the appliable packing instruction "130".

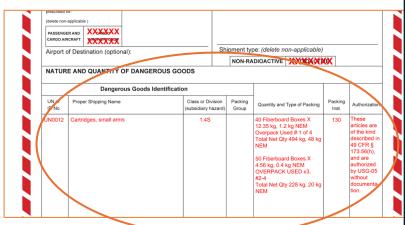
Sequence 4 - Authorizations

 Normally the EX number should be provided and the EX approval attached. However, this UN number

Dangerous Goods Declaration – Open Format



Dangerous Goods Declaration – Column Format



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does not require EX approvals for 50 caliber/8 gauge and below. Instead, make a statement and cite USG-05, a U.S. government variation stating that they require EX numbers, but that small arms ammunition is excepted per 49 173.56(h), e.g. "These articles are of the kind described in 49 CFR § 173.56(h), and are authorized by USG-05 without documentation."

Additional Handling Information & Authorization

- 1. The Shipper's Declaration for Dangerous Goods required by USG-12 must include an emergency response telephone number (including the area code and for telephone numbers for locations outside the US, the international access code or the "+" (plus) sign, country code and city code needed to complete the call from within the US) for use in the event of an incident involving the dangerous good(s). The number must be monitored at all times while the dangerous good is in transportation, including storage incident to transportation.
- 2. The name of the person signing the declaration is mandatory and must be entered on the declaration. This information may be printed or stamped.
 - a. If the Shipper's Declaration information is presented to the operator by means of EDP or EDI transmission techniques, the signature(s) may be electronic signature(s) or may be replaced by the name(s) (in capitals) of the person authorized to sign.

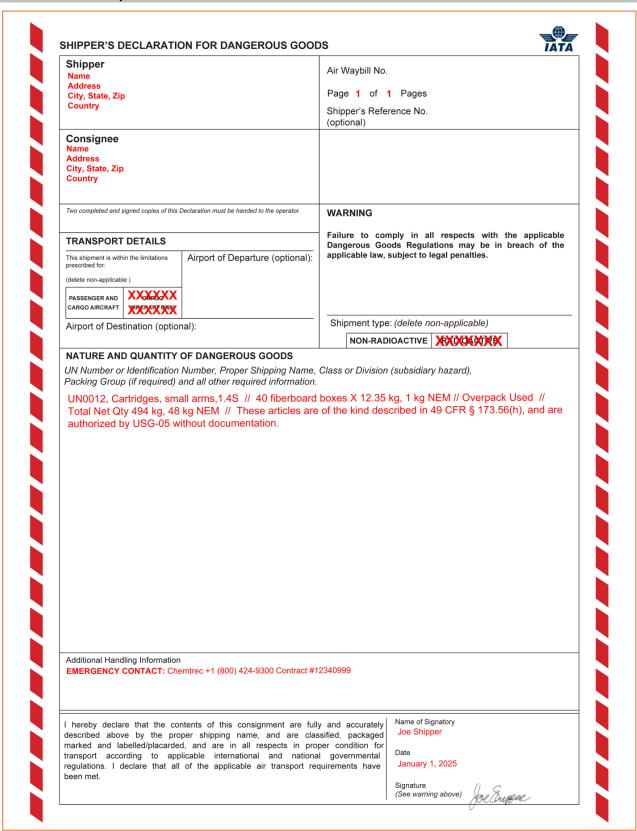
Citation: IATA 8.1.6.9-15; USG-12



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Completed DFD - Computer Format



CARTRIDGES, SMALL ARMS

Mode of Transportation: International Air - Passenger and Cargo Aircraft

Completed DFD - Column Format

