

# TRANSPORT DATA SHEET

## POWDER, SMOKELESS

Mode of Transportation: US Domestic Ground & Rail

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

### PRODUCT OVERVIEW

<b>Proper Shipping Name</b>	Powder, smokeless		
<b>Identification Number</b>	UN0509	<b>Hazard Class</b>	1.4C
<b>Commodity</b>	A substance based on nitrocellulose used as propellant. The term includes propellants with a single base (nitrocellulose (NC) alone), those with a double base (such as NC and nitroglycerin (NG)) and those with a triple base (such as NC/NG/nitroguanidine).		

### Executive Summary

The package, overpack and shipping paper should appear like the images below. The UN number, proper shipping name and hazard label 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 Bill of Lading

Below is an example of the Carrier Information section of the Bill of Lading (BOL) for this scenario. Additional details on completing the entire BOL is located in the [Shipping Paper Requirements](#) section of this Transport Data Sheet.

HANDLING UNIT		PACKAGE		GROSS WEIGHT (LBS)	NEM (LBS)	H.M (X)	COMMODITY DESCRIPTION <small>Commodity description, proper shipping name, additional care or attention to handling or stowage must be so marked and packaged as to ensure safe transportation in the ordinary course.</small>	LTL ONLY	
QTY	TYPE	QTY	TYPE					NMFC NUMBER	CLASS
1	PALLET	36	BOXES	450	360	X	UN0509, Powder, smokeless, 1.4C	[PER NMFC]	[PER NMFC]
		10	BOXES	70	50	X	UN0044, Primers, cap type, 1.4S	[PER NMFC]	[PER NMFC]
		2	BOXES	50			LTD QTY Cartridges, small arms	[PER NMFC]	[PER NMFC]

1	# Pallets @	60	pounds each	570	GROSS WEIGHT	410	NET EXPLOSIVE MASS (lbs)
		48	Total Pieces	60	PALLET WEIGHT		
				630	TOTAL GROSS		

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### HAZARDOUS MATERIALS TABLE

Symbols	Hazardous Materials Descriptions and Proper Shipping Name	Hazard Class or Division	Identification Numbers	PG	Label Codes	Special Provisions	(8)			(9)		(10)	
							Packaging (§ 173.***)			Quantity Limitations (see § 173.27 and § 175.75)		Vessel Stowage	
							Exceptions	Non-Bulk	Bulk	Passenger Aircraft/Vessel	Cargo Aircraft Only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Powder, smokeless	1.4C	UN0509		1.4C	16	171	62	None	Forbidden	75 kg	2	25

Any blank column of the HazMat table is not applicable.

Citation: [49 CFR § 172.101](#); [49 CFR § 172.102](#)

### CLASSIFICATION

Smokeless powder is classified by the Department of Transportation (DOT) in an EX approval issued to the manufacturer. UN0509 is assigned to smokeless powders packaged and tested to meet the criteria of Division 1.4. Propellants are assigned to Compatibility Group C. Shippers may re-ship smokeless powder using the manufacturer's EX approval including any special requirements.

EX approvals can be searched on the Pipeline and Hazardous Materials Safety Administration (PHMSA) website on the [Hazardous Materials Approval Search page](#).

Citation: [49 CFR § 173.56](#)

### SEGREGATION

Dangerous goods are subject to segregation requirements at the package, overpack (e.g., pallet) and conveyance (e.g., truck) levels. Below is the Segregation of Hazardous Materials along with the compatibility Table for Class 1 Explosives. 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.

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### 49 CFR 177.848 Segregation of Hazardous Materials

CLASS OR DIVISION	NOTES	1.1 1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3 GAS ZONE A	2.3 GAS ZONE B	3	4.1	4.2	4.3	5.1	5.2	6.1 LIQUID S PG 1 ZONE A	7	8 LIQUID S ONLY
EXPLOSIVES	1.1 & 1.2						⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
EXPLOSIVES	1.3						⊗		⊗	⊗	⊗		⊗	⊗	⊗	⊗	⊗		⊗
EXPLOSIVES	1.4						●		●	●	●		●				●		●
VERY INSENSITIVE EXPLOSIVES	1.5						⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
EXTREMELY INSENSITIVE	1.6																		
FLAMMABLE GASES	2.1		⊗	⊗	●	⊗			⊗	●							●	●	
NON-TOXIC, NON- FLAMMABLE GASES	2.2		⊗			⊗													
POISONOUS GAS ZONE A	2.3		⊗	⊗	●	⊗	⊗				⊗	⊗	⊗	⊗	⊗	⊗			⊗
POISONOUS GAS ZONE B	2.3		⊗	⊗	●	⊗	●				●	●	●	●	●	●			●
FLAMMABLE LIQUIDS	3		⊗	⊗	●	⊗			⊗	●					●				⊗
FLAMMABLE SOLIDS	4.1		⊗			⊗			⊗	●									⊗
SPONTANEOUSLY COMBUSTIBLE	4.2		⊗	⊗	●	⊗			⊗	●									⊗
DANGEROUS WHEN WET MATERIALS	4.3		⊗	⊗		⊗			⊗	●									⊗
OXIDIZERS	5.1	<b>A</b>	⊗	⊗		⊗			⊗	●	●								⊗
ORGANIC PEROXIDES	5.2		⊗	⊗		⊗			⊗	●									⊗
POISONOUS LIQUIDS PG 1 ZONE A	6.1		⊗	⊗	●	⊗	●				⊗	⊗	⊗	⊗	⊗	⊗			⊗
RADIOACTIVE MATERIALS	7		⊗			⊗	●												
CORROSIVE LIQUIDS	8		⊗	⊗	●	⊗			⊗	●		●	⊗	●	●	●			⊗

Reference 49 CFR § 177.848(f)  
Compatibility Table for  
Class 1 (Explosive) Materials



The absence of any hazard class or division or a blank space in the table indicates that no restrictions apply.



Do **NOT** overpack dangerous goods together



Materials may **NOT** be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation.

### 49 CFR 177.848(f) Compatibility Table for Class 1 (Explosive) Materials

COMPATIBILITY GROUP	A	B	C	D	E	F	G	H	J	K	L	N	S
A		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
B	⊗		⊗	4	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	4/5
C	⊗	⊗		2	2	⊗	6	⊗	⊗	⊗	⊗	3	4/5
D	⊗	4	2		⊗	⊗	⊗	⊗	⊗	⊗	⊗	3	4/5
E	⊗	⊗	2	⊗		⊗	⊗	⊗	⊗	⊗	⊗	3	4/5
F	⊗	⊗	⊗	⊗	⊗		⊗	⊗	⊗	⊗	⊗	⊗	4/5
G	⊗	⊗	6	⊗	⊗	⊗		⊗	⊗	⊗	⊗	⊗	4/5
H	⊗	⊗	⊗	⊗	⊗	⊗	⊗		⊗	⊗	⊗	⊗	4/5
J	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗		⊗	⊗	⊗	4/5
K	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗		⊗	⊗	4/5
L	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗		⊗	⊗
N	⊗	⊗	3	3	3	⊗	⊗	⊗	⊗	⊗	⊗	1	4/5
S	⊗	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	



Materials may **NOT** be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation.

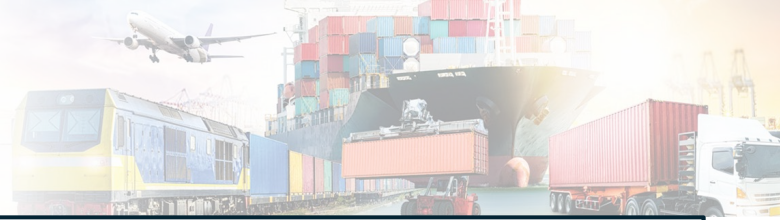
- (1) A blank space in the table indicates that no restrictions apply.
- (2) The letter "X" in the table indicates that explosives of different compatibility groups may not be carried on the same transport vehicle.
- (3) The numbers in the table mean the following:

"1" means an explosive from compatibility group L shall only be carried on the same transport vehicle with an identical explosive.  
 "2" means any combination of explosives from compatibility groups C, D, or E is assigned to compatibility group E.  
 "3" means any combination of explosives from compatibility groups C, D, or E with those in compatibility group N is assigned to compatibility group D.  
 "4" means see § 177.835(g) when transporting detonators.  
 "5" means Division 1.4S fireworks may not be loaded on the same transport vehicle with Division 1.1 or 1.2 (explosive) materials.  
 "6" means explosive articles in compatibility group G, other than fireworks and those requiring special handling, may be loaded, transported and stored with other explosive articles of compatibility groups C, D and E, provided that explosive substances (such as those not contained in articles) are not carried in the same transport vehicle.

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Citation: [49 CFR § 177.848 - Segregation and Separation Chart of Hazardous Materials](#)

### Packages

Smokeless powder must not be intermingled with other products within the same package.

### 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.

Citation: [49 CFR § 177.848](#)

### Stowage in the Same Motor Vehicle

When prohibited by the Segregation or Compatibility tables, smokeless powder may not be transported with other hazardous materials in the same freight container, trailer or straight truck; incompatible materials may be shipped in different trailers pulled by one truck.

Citation: [49 CFR § 177.848\(d-g\)](#)

## PACKAGING INFORMATION

Package smokeless powder as follows:

- Smokeless powder must be packed in accordance with the following packing instruction:

Packing instruction	Inner packagings	Intermediate packagings	Outer packagings
114(b)	Bags, Receptacles	Not necessary	Boxes, Drums
<b>PARTICULAR PACKING REQUIREMENTS OR EXCEPTIONS:</b> 1. For UN Nos. 0077, 0132, 0234, 0235 and 0236, packagings must be lead free 2. For UN0160 and UN0161, when metal drums (1A2, 1B2 or 1N2) are used as the outer packaging, metal packagings must be so constructed that the risk of explosion, by reason of increased internal pressure from internal or external causes, is prevented. 3. For UN0160, UN0161, and UN0508, inner packagings are not necessary if drums are used as the outer packaging. 4. For UN0508 and UN0509, metal packagings must not be used. Packagings of other material with a small amount of metal, for example metal closures or other metal fittings such as those mentioned in part 178 of this subchapter, are not considered metal packagings	<i>Bags.</i> paper, kraft, plastics textile, sift-proof woven plastics, sift-proof <i>Receptacles.</i> fiberboard metal paper plastics wood plastics, sift-proof		<i>Boxes.</i> natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fiberboard (4G) <i>Drums.</i> steel (1A1 or 1A2) aluminum (1B1 or 1B2) other metal (1N1 or 1N2) plywood (1D) fiber (1G) plastics (1H1 or 1H2)

- Metal packagings are prohibited for UN0509, with some exceptions (e.g., lids)
- The package must be tested and certified not to leak under normal transport conditions.
- The maximum gross weight is limited to 400 kg (882 pounds) per package. Reference the specific EX number for additional packing requirements which may reduce the package net weight.

Citation: [49 CFR § 173.62](#); [49 CFR 178 Subpart L](#); [49 CFR 178 Subpart M](#)

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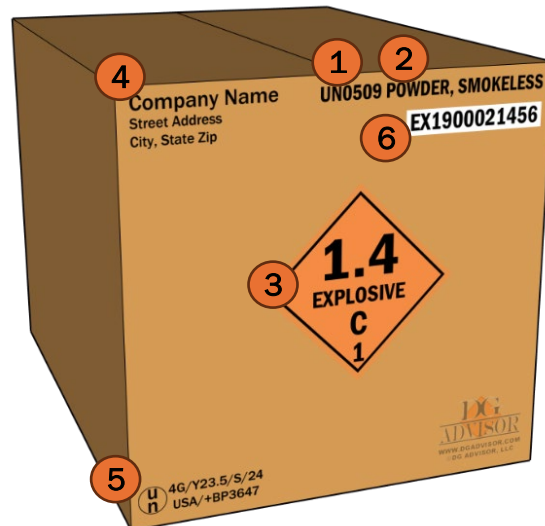
Mode of Transportation: *US Domestic Ground & Air*



### PACKAGE LABELING & MARKING

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

#### Minimum Package Marking



#### 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

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

##### 2. Proper Shipping Name

1. A proper shipping name is a standardized name used to identify a dangerous good during transportation.

##### 3. 1.4C Hazard Label

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

##### 4. Consignor or consignee's name & address

1. Per [49 CFR §172.301\(d\)](#), the package must be marked with the consignor or consignee's name and address unless the package is:
  1. Transported by highway only and will not be transferred from one carrier to the other;
  2. Part of a carload lot, truckload lot or freight container load, and the entire contents of the rail car, truck or freight container are shipped from one consignor to one consignee.

##### 5. A specification package must be used with the package test certification mark affixed

1. 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](#).

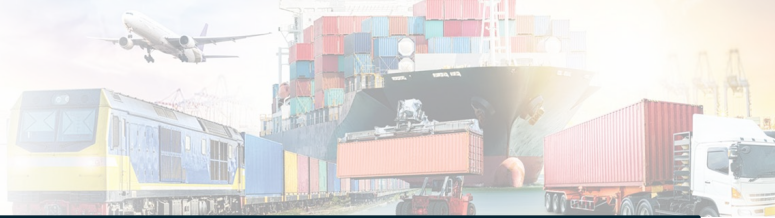
##### 6. EX number(s) of the Explosive(s)

1. Each package containing a Class 1 material must be marked with the EX number. Alternatively, either the EX number or product code on the EX approval may appear on the packaging or shipping paper.

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- NOTE: if more than 5 different Class 1 materials are packaged in the same package, the package may be marked with only five of the EX numbers.

Citation: [49 CFR § 172.301\(d\)](#); [49 CFR § 172.320](#); [49 CFR § 172.400](#); [49 CFR § 172.411\(c\)](#); [49 CFR Part 178 Subpart M](#)

### 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:

- Placed or stacked onto a load board such as a pallet and secured by strapping, shrink wrapping, stretch wrapping, or other suitable means; or
- 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 (e.g., LQ has slightly different rules). 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.
  - 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.

#### Example of the OVERPACK mark

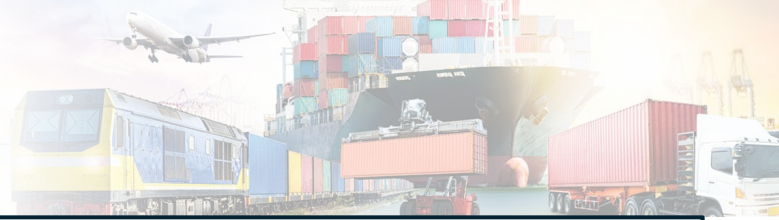


Citation: [49 CFR § 178.8 "Overpack"](#); [49 CFR § 173.25](#)

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### Overpack Examples



When overpacking one or more packages of Smokeless Powder into a protective outer packaging, apply the following:

#### Hazard Label:

1. 1.4C hazard label

#### Marks:

1. OVERPACK, and
2. UN number, and
3. Proper shipping name



When overpacking a Smokeless Powder package with Limited Quantity product(s) into a protective outer package, apply the following:

#### Hazard Label:

1. 1.4C hazard label

#### Marks:

1. Limited Quantity, and
2. OVERPACK, and
3. UN number, and
4. Proper shipping name

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

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

#### Hazard Label:

1. 1.4C hazard label

#### Marks:

1. OVERPACK, and
2. UN number, and
3. Proper shipping name

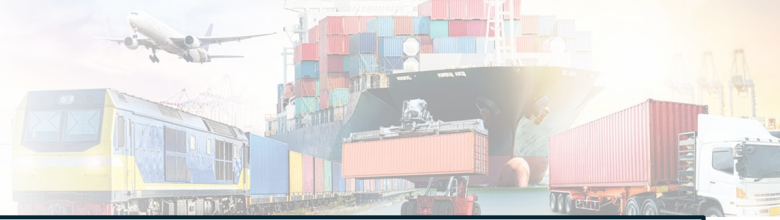
If transparent stretch wrap is used, and you can see the 1.4C hazard label, UN number and proper shipping name at least once through the stretch wrap, then no action is required.



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### SHIPPING PAPER REQUIREMENTS

Each person who offers a hazardous material for transportation shall describe the material on the shipping paper in the manner required under [49 CFR § Part 172; Subpart C – Shipping Papers](#). A standard Bill of Lading (BOL) may be augmented with the required hazmat information. No particular format is required except, but certain details are required in a certain way. Additionally:

- Shipping papers must be legible and printed (handwritten or printed) in English.
- Do not use any code or abbreviations, unless authorized. Abbreviations may be used for packaging types (e.g., “bx” for boxes, “drm” for drums) and units of measurement (e.g., “lbs”), provided they are commonly accepted and recognizable.
- Shippers are required to retain a paper or electronic copy of the shipping paper for 2 years following the date of acceptance by the carrier and must be available to an authorized official upon request.

Citation: [49 CFR § 172.200\(a\)](#); [49 CFR § 172.201](#);

### Completing a Bill of Lading

The BOL sections that are highlighted below are required sections, however the sections may appear in different locations depending on the Bill of Lading form being used. All other non-highlighted fields are optional.

#### General Information

1. The shipper’s name and address should appear on the shipping paper. Alternatively, a contract number must appear with the emergency response phone number.
2. Enter the **DATE**
3. Enter the number of **PAGES**. If there are more materials being shipped than there is space for on the BOL, attach additional pages as necessary. The shipper must ensure the document reflects Page [X] of [Y] pages.
4. Include an Emergency Response Telephone Number and the name of the service. Enter a contract number if the shipper’s name is not on the shipping paper (e.g., when prepared by a third party).
5. Include the Shipper’s Certification ([49 CFR § 172.204\(a\)\(1\)](#)). Use this text exactly: “This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.” A different version for international shipments is available (.e.g., USA and Canada or Mexico).
6. Must be legibly signed by a representative (e.g., employee) of the shipper, whether manually or pre-printed.

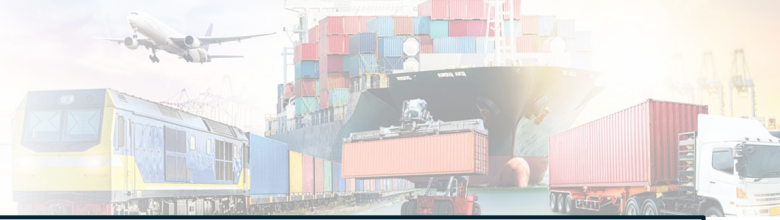
Company Name		STRAIGHT BILL OF LADING	
Address		SHORT FORM - Original - Not Negotiable	
City, State, Zip		DATE	1/1/2024
		PAGE	1 of 1
<small>The Property described below, in apparent good order, except as noted (contents and conditions of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any said property over all or any portion of said route to destination, and as to each party at any time interested in any or all of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained (as specified in Appendix B to part 1035) which are hereby agreed to by the shipper and accepted for himself and his assigns.</small>			
<b>SHIP FROM</b>		<b>BILL OF LADING NUMBER</b>	
Company Name			
Address			
City, State, Zip			
<b>SHIP TO</b>		<b>CARRIER NAME</b>	
Company Name		_____	
Address		<b>TRAILER NO</b>	
City, State, Zip		_____	
<b>SPECIAL INSTRUCTIONS</b>		<b>SEAL NUMBER (S)</b>	
Enter any special instructions for this specific shipment here.			



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### Placement of Dangerous Goods Information

Dangerous goods must be differentiated from non-dangerous goods on the shipping paper.

There are three options:

1. Group all the dangerous goods together before the non-dangerous goods; or
2. Use a contrasting color for the dangerous goods; or
3. Include a column captioned "HM" and place an "X" in that column for each dangerous good.

### Shipping Description

The following information must appear in order with no other information interspersed:

1. UN number, proper shipping name, hazard class or division, packing group.
  1. For example, UN 0509, Powder, smokeless, 1.4C. There is no packing group, and it is non-compliant to include one.
2. Information required before or after the Shipping Description:
  1. Quantity & Description of Dangerous Goods
    - The number and type of packages must be indicated. The type of packages must be indicated by description of the package (for example, "36 boxes").
  2. Weight
    - The total amount of hazardous materials covered by each description must be indicated with the applicable unit of measurement, for example, "360 pounds"
    - For Class 1 materials, the quantity must be the net explosive mass, but in the US only this is the net weight of the explosives. Therefore, use the net weight. The gross weight of the shipment may be shown elsewhere on the shipping paper.

NOTE: Liability limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. 14706(c)(1)(A) and (B)

HANDLING UNIT		PACKAGE		GROSS WEIGHT (LBS)	NEM (LBS)	H.M (X)	COMMODITY DESCRIPTION	LTL ONLY	
QTY	TYPE	QTY	TYPE					NMFC NUMBER	CLASS
1	PALLET	36	BOXES	450	360	X	UN0509, Powder, smokeless, 1.4C	[PER NMFC]	[PER NMFC]
		10	BOXES	70	50	X	UN0044, Primers, cap type, 1.4S	[PER NMFC]	[PER NMFC]
		2	BOXES	50			LTD QTY Cartridges, small arms	[PER NMFC]	[PER NMFC]

1	# Pallets @	60	pounds each	570	GROSS WEIGHT	410	NET EXPLOSIVE MASS (lbs)
	Total Pieces	48		60	PALLET WEIGHT		
				630	TOTAL GROSS		

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and in proper condition for transportation according to the applicable regulations of the Department of Transportation.

PLACARDS REQUIRED \_\_\_\_\_ PLACARDS SUPPLIED \_\_\_\_\_ SHIPPER SIGNATURE Joe Shipper

SHIPPER: Joe Shipper DATE 1/1/2024

EMERGENCY RESPONSE TELEPHONE NUMBER: **Chemtec +1 (800) 424-9300**

CARRIER SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

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**Completed Bill of Lading**

**Company Name**

Address

City, State, Zip

## STRAIGHT BILL OF LADING

**SHORT FORM - Original - Not Negotiable**

DATE 1/1/2024

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The Property described below, in apparent good order, except as noted (contents and conditions of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any said property over all or any portion of said route to destination, and as to each party at any time interested in any or all of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained (as specified in Appendix B to part (1035) which are hereby agreed to by the shipper and accepted for himself and his assigns.

**SHIP FROM**

**Company Name**

Address

City, State, Zip

**BILL OF LADING NUMBER**

[Empty box for Bill of Lading Number]

**SHIP TO**

**Company Name**

Address

City, State, Zip

**CARRIER NAME** \_\_\_\_\_

**TRAILER NO** \_\_\_\_\_

**SEAL NUMBER (S)** \_\_\_\_\_

**SPECIAL INSTRUCTIONS**

Enter any special instructions for this specific shipment here.

**NOTE: Liability limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. 14706(c)(1)(A) and (B)**

HANDLING UNIT		PACKAGE		GROSS WEIGHT (LBS)	NEM (LBS)	H.M (X)	COMMODITY DESCRIPTION <small>Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care.</small>	LTL ONLY	
QTY	TYPE	QTY	TYPE					NMFC NUMBER	CLASS
1	PALLET	36	BOXES	450	360	X	UN0509, Powder, smokeless, 1.4C	[PER NMFC]	[PER NMFC]
		10	BOXES	70	50	X	UN0044, Primers, cap type, 1.4S	[PER NMFC]	[PER NMFC]
		2	BOXES	50			LTD QTY Cartridges, small arms	[PER NMFC]	[PER NMFC]

1	# Pallets @	60	pounds each	570	<b>GROSS WEIGHT</b>	410	<b>NET EXPLOSIVE MASS (lbs)</b>
		48	Total Pieces	60	<b>PALLET WEIGHT</b>		
				630	<b>TOTAL GROSS</b>		

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and in proper condition for transportation according to the applicable regulations of the Department of Transportation.

PLACARDS REQUIRED \_\_\_\_\_ PLACARDS SUPPLIED \_\_\_\_\_ SHIPPER SIGNATURE Joe Shipper

SHIPPER: Joe Shipper DATE 1/1/2024

**EMERGENCY RESPONSE TELEPHONE NUMBER: Chemtrec +1 (800) 424-9300**

CARRIER SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

# TRANSPORT DATA SHEET

## POWDER, SMOKELESS

Mode of Transportation: *US Domestic Ground & Air*



Citation: [Appendix A to Part 1035 – Uniform Straight Bill of Lading](#); [49 CFR Part 172 – Subpart C Shipping Papers](#)

### PLACARDS

Each motor vehicle, transport vehicle or freight container must be placard in accordance with [49 CFR § 172 Subpart F – Placarding](#).

- When exceeding 1,000 pounds gross weight of Table 2 dangerous goods in a transport conveyance, placards must be placed on all four sides of the freight container, transport vehicle (e.g., trailer) or straight truck.
  - The shipper must provide the required placards to the motor carrier upon demand.
  - If more than one division of class 1 explosives are being shipped in the same transport vehicle or freight container, display the lowest division number.
  - If more than 2 different medium or low hazard (Table 2) dangerous goods requiring different placards are being transported in the same transport vehicle or freight container, the carrier may substitute the placard with the DANGEROUS placard. Dangerous goods exceeding 1,000 pounds per placard type require their normal placard.
- Placards can be made of plastic, metal or other material capable of withstanding a 30-day exposure to open weather conditions and coloring on the placard withstand a 72-hour fadeometer test.
- Placards must be at least 250 mm (9.84 inches) on each side, placed square on point, and must have a 12.5 mm solid line inside and parallel to the edge.
- Placards must be in good condition and unobscured.
- Reference the general placarding requirements in Table 1 and Table 2 below.

49 CFR § 172.504 GENERAL PLACARDING REQUIREMENTS

Table 1

Category of material Hazard class or division number and additional description, as appropriate	Placard name	Placard design section reference (49 CFR § )
1.1	EXPLOSIVES 1.1	172.522
1.2	EXPLOSIVES 1.2	172.522
1.3	EXPLOSIVES 1.3	172.522
2.3	POISON GAS	172.540
4.3	DANGEROUS WHEN WET	172.548
5.2 (Organic peroxide, Type B, liquid or solid, temperature controlled)	ORGANIC PEROXIDE	172.552
6.1 (material poisonous by inhalation (see § 171.8 of this subchapter))	POISON INHALATION HAZARD	172.555
7 (Radioactive Yellow III label only)	RADIOACTIVE*	172.556



**Any quantity of these hazardous materials require placarding.**

\* See 49 CFR § 172.504 for additional instructions

49 CFR § 172.504 GENERAL PLACARDING REQUIREMENTS

Table 2

Category of material Hazard class or division number and additional description, as appropriate	Placard name	Placard design section reference (49 CFR § )
1.4	EXPLOSIVES 1.4	172.523
1.5	EXPLOSIVES 1.5	172.524
1.6	EXPLOSIVES 1.6	172.525
2.1	FLAMMABLE GAS	172.532
2.2	NON-FLAMMABLE GAS	172.528
3	FLAMMABLE	172.542
Combustible liquid	COMBUSTIBLE	172.544
4.1	FLAMMABLE SOLID	172.546
4.2	SPONTANEOUSLY COMBUSTIBLE	172.547
5.1	OXIDIZER	172.550
5.2 (Other than organic peroxide, Type B, liquid or solid, temperature controlled)	ORGANIC PEROXIDE	172.552
6.1 (other than material poisonous by inhalation)	POISON	172.554
6.2	NONE	N/A
8	CORROSIVE	172.558
9	CLASS 9 (see § 172.504(f)(9))	172.560



**Shipping more than 454 kg (1,001 pounds) aggregate gross weight of the listed dangerous goods require placarding.**

Citation: [49 CFR § 172 Subpart F – Placarding](#)