



National Motor Freight Classification®

Supplement 4 to NMF 100-AU

(Supplements 1, 2, 3 and 4 contain all changes)

Issued: November 4, 2021

Effective: December 4, 2021

(Except as otherwise provided herein)

Expires: January 29, 2022

Issued by:

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Carriers and other transportation companies who use or refer to any provisions of the National Motor Freight Classification® are required to be bona fide participants in the Classification.

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PARTICIPATING MEMBER INTERSTATE CARRIERS

The following NMFTA member carriers are participants in or licensed to participate in this Classification for interstate, intrastate and foreign commerce under authority of powers of attorney issued to National Motor Freight Traffic Association, Inc., Agent or licenses issued by the National Motor Freight Traffic Association, Inc. The provisions of this Classification are limited to intrastate application within the states where the carrier is authorized to operate.

SCAC	CARRIER NAME and DOMICILE	U.S. DOT Number	MC Number
⊕GDCO	Groupe Dicom Transport Canada, GLS Logistics Systems Canada Ltd., d/b/a, Brampton, ON, Canada .	2628421	875446
PENS	▲Peninsula Truck Lines, Inc., Auburn, WA	8329	113165
⊕SVSE	Supervan Service Co., Inc., St. Louis, MO	246353	174458

PARTICIPATING MEMBER INTRASTATE CARRIERS

The following NMFTA member carriers are participants in or licensed to participate in this Classification for intrastate commerce under authority of powers of attorney issued to National Motor Freight Traffic Association, Inc., Agent or licenses issued by the National Motor Freight Traffic Association, Inc. The provisions of this Classification are limited to intrastate application within the states where the carrier is authorized to operate.

SCAC	CARRIER NAME and DOMICILE	U.S. DOT Number
⊕RAMQ	Ramirez Trucking Co., Los Angeles, CA.....	387001

PARTICIPATING BROKER LICENSEES

The following interstate brokers are licensed to participate in this Classification under authority of powers of attorney issued to National Motor Freight Traffic Association, Inc., Agent or licenses issued by the National Motor Freight Traffic Association, Inc. The participation of each broker named herein is limited, on interstate, intrastate and foreign commerce, to provisions of this Classification applying on the articles and commodities for which the broker is authorized to arrange transportation.

SCAC	BROKER NAME and DOMICILE	U.S. DOT Number	MC or FF Number
⊕SXPL	Summit Expedited Logistics, Inc., Chicago, IL	982283	417762

CUMULATIVE LIST OF ITEMS AND NUMBERED PACKAGES IN SUPPLEMENTS

Listed below are items and numbered packages that have been added, amended or brought forward in this supplement and previous supplements.

ITEM	SUP	ITEM	SUP	ITEM	SUP	ITEM	SUP	ITEM	SUP	ITEM	SUP
180-A	4	15773-A	1	24282-A	2	34092-A	1	★42446	4	44920-A	2
181-A	4	15897-A	1	24740-A	1	34120-A	1	42450-A	2	44950-A	2
183-C	4	16653-A	1	24742-A	1	34720-A	2	★42451	2	44960-A	2
220-A	2	16657-A	1	24910-A	1	35540-A	4	42460-A	4	45260-A	2
235-B	2	16658-A	1	25120-A	1	35570-A	2	42470-A	4	★45322	2
240-A	2	16910-A	1	25331-A	1	35930-A	1	42480-A	4	★45323	2
250-A	2	17540-A	4	25610-A	1	36700-A	1	42500-A	2	★45324	2
257-A	1	18260-A	2	25863-A	4	36712-A	1	42600-A	1	45325-A	2
258-A	1	18262-A	2	26490-A	1	36750-A	1	42603-A	1	45460-A	4
260-A	1	18265-A	2	26660-A	4	36800-A	1	42604-A	1	45462-A	4
270-A	1	18266-A	2	26860-A	4	37150-A	1	42620-A	1	45463-A	1
292-A	4	18267-A	2	27140-A	1	37200-A	1	42647-C	4	45464-A	1
296-A	1	18268-A	2	27660-A	1	37300-A	1	42648-B	2	45467-C	4
680-B	4	18660-A	4	27720-A	4	37310-A	1	42649-B	4	45468-C	4
682-B	4	19480-A	2	27780-A	2	38600-A	1	42652-A	4	★45470	2
687-A	4	21420-A	1	27800-A	2	38840-A	1	42653-A	4	★45471	2
689-A	4	21470-A	4	27802-A	2	38950-A	1	★42654	4	★45472	2
1060-A	2	21472-A	4	28705-A	1	38960-A	1	42655-A	1	45480-A	1
4620-A	2	21495-A	1	29080-A	4	38965-A	1	42660-A	2	45615-C	4
4621-A	2	21560-A	1	29090-A	1	38966-A	1	42661-A	2	45616-C	4
4622-A	2	21620-A	1	29110-A	4	★39120	2	42870-A	4	45618-A	1
8540-A	1	22060-A	2	29112-A	4	39340-A	4	42920-B	4	45680-A	2
10380-A	1	22170-A	1	29140-A	4	39455-A	4	43080-A	4	45750-A	1
10920-A	4	22172-A	1	29780-A	4	39460-A	4	43150-A	4	45900-A	2
10922-A	4	22300-A	1	29785-A	4	39462-A	4	43170-A	4	45960-A	2
10924-A	4	22310-A	1	29786-A	4	39463-A	4	43180-A	4	46023-A	2
★13450	2	22320-A	1	29790-A	4	39710-A	2	43230-A	4	46030-A	2
★13451	2	22330-A	1	29792-A	4	39980-A	4	43260-A	4	46031-A	2
13490-A	2	22332-A	1	29800-A	4	40340-A	2	43290-A	4	46032-A	2
13795-A	1	22470-A	1	29805-A	4	40380-A	2	43490-A	1	46160-A	4
14020-A	1	22472-A	1	29810-A	4	40560-B	4	43510-A	2	46170-A	4
14022-A	1	22920-A	1	★29900	4	40610-A	2	43730-A	4	46180-A	4
14280-A	1	23160-A	1	30300-A	1	40960-A	2	43865-A	2	46190-A	4
14530-A	2	23162-A	1	30400-A	1	40970-A	2	44155-C	4	46220-A	4
★14535	2	23260-A	1	30860-A	1	40980-A	2	44156-C	4	46222-A	4
★14536	2	23360-A	1	30900-A	1	42300-A	2	44380-A	2	46270-A	2
14540-A	2	23810-A	4	32100-A	2	42310-A	2	44381-A	2	46290-A	1
14560-A	2	23880-A	1	★32102	2	42312-A	2	44500-C	4	46300-A	4
15220-A	2	23900-A	1	32104-A	2	42315-A	2	44501-C	4	46340-B	2
15221-A	2	23910-A	1	32106-A	2	42318-A	2	44515-C	4	46341-A	2
15260-A	2	23940-A	1	32280-A	1	42320-A	2	44516-C	4	46360-B	2
15300-A	4	23975-A	4	32282-A	1	42330-A	2	44570-B	2	46361-A	2
15380-A	2	24080-A	4	32284-A	1	42350-A	2	44571-A	2	46460-A	4
15382-A	2	24120-A	2	32570-A	1	42380-A	2	★44625	2	46480-A	2
15420-A	2	24220-A	2	32590-A	1	42381-A	2	★44626	2	46530-A	2
15730-A	1	24240-A	2	32850-A	1	42390-A	2	44690-A	2	46540-A	4
15732-A	1	24242-A	2	33880-A	2	42410-A	2	44720-A	1	46570-A	4
15770-A	1	24260-A	2	33881-A	2	42436-A	2	44855-A	2	46640-A	4
15772-A	1	24280-A	2	34090-A	1	★42445	4	44910-A	2	46670-A	4

CUMULATIVE LIST OF ITEMS AND NUMBERED PACKAGES IN SUPPLEMENTS

Listed below are items and numbered packages that have been added, amended or brought forward in this supplement and previous supplements.

ITEM	SUP	ITEM	SUP	ITEM	SUP	ITEM	SUP	ITEM	SUP	ITEM	SUP
46690-A	2	50228-A	2	56294-A	4	61111-A	4	72310-A	4	84260-A	4
46700-A	4	50229-A	2	56295-A	4	62647-A	1	72311-A	4	84261-A	4
46850-A	2	50236-A	4	56400-A	2	62725-A	2	72460-A	2	84262-A	4
46870-A	2	50239-A	4	56401-A	2	62740-A	2	72560-A	1	86540-A	1
46890-A	2	50240-B	2	56545-A	2	63570-B	2	72561-A	1	86700-A	1
46910-A	2	50241-A	2	★56546	2	63571-B	2	72680-A	1	86701-A	1
46920-B	2	50260-B	2	★56547	2	63572-A	2	72681-A	1	86702-A	1
46921-A	2	50261-A	2	56710-A	2	64300-A	4	72760-A	4	86900-A	1
46930-A	2	50312-A	2	56711-A	2	64301-A	4	72762-A	4	86902-A	1
46970-A	2	50313-A	2	56714-A	2	64302-A	4	72800-A	4	87590-A	4
46990-A	1	50314-A	2	56785-A	2	64460-A	2	72802-A	4	87630-A	4
46992-A	1	50340-A	1	56786-A	2	65660-A	2	72910-B	4	87700-A	2
47100-A	2	50390-A	4	★56787	2	65780-A	2	72911-B	4	87810-A	4
47110-A	2	50395-A	2	★56788	2	65800-A	2	72914-B	4	87811-A	4
47500-A	4	50475-A	2	★56789	2	67050-A	2	72916-B	4	87812-A	4
47501-A	4	50476-A	2	56790-A	2	67051-A	2	72917-B	4	87813-A	4
47650-A	2	53180-A	1	56791-A	2	67052-A	2	73227-C	4	87814-A	4
47651-A	2	53181-A	1	56792-A	2	67940-A	2	73229-C	4	88160-A	1
48050-A	4	53182-A	1	56793-A	4	67960-A	2	73233-C	4	88161-A	1
48120-A	4	53183-A	1	★56975	4	67970-A	2	73235-C	4	88540-A	4
48150-A	4	53390-A	4	57100-B	2	68660-A	2	73260-A	4	89710-A	4
48160-A	4	53391-A	4	57101-B	2	68960-A	2	73261-A	4	89820-A	4
48170-A	4	53392-A	4	57102-B	2	69790-A	2	73270-A	1	89990-A	4
48210-A	4	54230-A	2	57103-A	2	69930-A	2	★73365	4	90650-A	4
48375-A	2	54670-A	2	57420-A	4	69932-A	2	★73366	4	90970-A	4
48383-A	2	55060-A	2	57580-A	2	69980-A	2	73570-A	4	91120-A	4
48420-A	4	55380-A	4	57900-A	2	69990-A	2	74035-A	4	91140-A	4
48580-B	4	55382-A	4	58340-A	4	70000-A	2	74150-A	2	91200-A	4
48583-B	4	★55450	4	58520-A	1	70010-A	2	74450-A	1	91220-A	4
48585-B	4	★55451	4	58692-B	2	70012-A	2	74451-A	1	91280-A	4
49017-A	4	55470-A	4	58770-B	2	70680-A	2	74490-A	4	91360-A	2
49390-A	2	★55471	4	58771-A	2	70681-A	2	74491-A	4	91400-A	4
49392-A	2	55472-A	4	58772-B	2	71000-B	4	74495-A	1	91440-A	4
49880-A	2	55500-A	2	58773-B	2	71002-B	4	74700-A	4	94880-A	2
49881-A	2	55510-A	2	58960-A	2	71004-B	4	74720-A	2	96360-A	1
49885-A	2	55742-A	4	59070-A	2	71006-B	4	74800-A	1	97470-A	4
49886-A	2	55890-A	4	59380-A	4	71120-A	2	74801-A	1	98390-A	4
50020-A	2	55892-A	4	59382-A	4	71121-A	2	74910-A	1	98870-A	4
50023-A	2	55895-A	2	59384-A	4	★71122	2	74990-A	4	99190-A	4
50086-A	2	55897-A	2	59420-B	2	★71123	2	75400-A	4	99200-A	4
50087-A	2	55905-A	2	59421-B	2	71130-A	2	81370-A	4	99210-A	4
50090-A	4	56040-A	4	60280-B	2	71240-A	2	82285-A	1	99230-A	4
50155-A	1	56041-A	4	60281-A	2	71840-A	2	82286-A	1	99250-A	4
50157-A	1	56042-A	4	60630-A	4	72040-A	1	83250-A	4	99320-A	4
50180-A	1	56210-A	2	60680-A	4	72042-A	1	83252-A	4	100800-A	4
50185-A	1	56290-A	4	60700-A	4	72043-A	1	83390-A	1	101682-A	2
50195-A	4	56291-A	4	60702-A	4	72260-A	4	83470-A	4	101683-A	2
50196-A	4	56292-A	4	60703-A	4	72270-A	1	83740-A	4	101720-B	4
50227-A	2	56293-A	4	61110-A	4	72271-A	1	84100-A	4	101721-B	4

CUMULATIVE LIST OF ITEMS AND NUMBERED PACKAGES IN SUPPLEMENTS

Listed below are items and numbered packages that have been added, amended or brought forward in this supplement and previous supplements.

ITEM	SUP	ITEM	SUP	ITEM	SUP	ITEM	SUP	ITEM	SUP	PACKAGE	SUP
103080-A	2	124590-A	4	149610-A	2	158400-A	4	178160-A	1	133	1
109700-B	4	125540-A	4	149612-A	2	158401-A	4	★178161	1	169	2
109701-B	4	125600-A	4	149980-B	4	158880-A	4	178162-A	1	183	1
109702-B	4	125640-A	4	149982-B	4	158881-A	4	183120-A	4	195	1
109703-B	4	125660-A	4	152720-A	4	158882-A	4	183121-A	4	198	1
109704-B	4	125745-A	4	152840-A	4	159000-A	2	186080-A	4	200	1
109705-B	4	125746-A	4	152841-A	4	159003-A	4	186620-A	4	210	1
109706-B	4	125747-A	4	153440-A	4	★159005	4	186621-A	4	220	1
110120-A	4	126040-A	4	153442-A	4	159506-A	4	186622-A	4	221	1
110160-A	4	126120-A	4	153900-A	4	★160420	2	187470-A	2	245	1
110270-A	4	127760-A	4	153901-A	4	★160421	2	187471-A	2	247	1
110290-A	4	★130207	4	153902-A	4	164240-A	1	187620-A	4	248	1
110497-A	4	130500-A	2	154410-A	4	164390-B	4	187645-A	4	255	1
111450-B	4	130502-A	2	154415-A	4	164391-B	4	187682-A	4	264	1
111451-B	4	130504-A	2	154416-A	4	164393-B	4	188690-A	4	266	1
111470-A	4	130506-A	2	154418-A	4	164394-B	4	189800-A	4	279	2
111473-A	4	130508-A	2	155023-A	4	170060-A	2	189804-A	4	301	1
112360-A	4	131310-A	4	155025-A	4	170061-A	2	193821-A	2	310	1
112380-A	4	131620-A	4	155035-A	4	170080-A	2	193823-A	2	352	1
112870-A	4	131860-A	4	155050-B	2	170081-A	2	193860-A	2	355	4
112871-A	4	131862-A	4	155051-B	2	171260-A	2	194120-A	4	359	1
112872-A	4	133300-A	2	155052-B	2	171262-A	2	194130-A	4	360	1
112980-A	4	134010-A	2	155053-B	2	171410-B	4	194132-A	4	361	2
★113560	4	134012-A	2	155054-B	2	★171411	4	196160-A	2	391	2
115720-A	4	134100-A	4	155126-B	2	172680-A	2	196161-A	2	397	2
115880-A	4	134220-A	4	155250-B	2	175080-A	4	196162-A	2	399	2
116030-A	1	134280-A	4	155252-B	2	176050-B	4	196180-A	2	401	2
116031-A	1	134300-A	4	155255-B	2	176051-B	4	196181-A	2	404	2
116033-A	1	134470-A	1	156200-B	2	176052-B	4	198200-A	4	405	2
116034-A	1	134472-A	1	156240-A	2	176053-B	4	199770-A	1	410	2
116035-A	1	134570-A	4	156241-A	2	176054-B	4	200070-A	4	413	2
116036-A	1	135620-A	4	156300-B	4	176370-A	1	200160-A	4	414	2
116037-A	1	135660-A	4	156302-B	4	177120-A	2	200430-A	2	498	2
116038-A	1	136040-A	4	156303-B	4	177122-A	2	200432-A	2	518	2
116400-A	4	137360-A	4	156304-B	4	★177400	2	200460-A	4	579	2
116670-A	4	137380-A	4	156600-B	4	★177401	2	250100-A	1	591	2
116730-A	4	138460-A	2	156602-B	4	177430-A	2	250150-B	4	600	1
117200-A	4	138461-A	2	156603-B	4	177432-A	2	250160-A	4	601	2
117240-A	4	138462-A	2	156604-B	4	177434-A	2	300100-A	1	678	2
117360-A	4	139640-A	2	156830-A	2	177450-B	2	300105-A	1	759	4
118220-A	4	139642-A	2	156831-A	2	177470-A	2	★500200	1	762	4
119060-A	4	140940-A	1	156832-A	2	177500-A	2	PACKAGE	SUP	773	4
122000-A	4	140942-A	1	156834-A	2	177520-A	2	19	1	776	4
122001-A	4	144790-B	2	156900-A	4	177540-A	2	23	1	788	4
122002-A	4	144791-A	2	156902-A	4	177560-A	2	37	1	789	4
122003-A	4	149240-A	4	157320-A	4	177580-A	2	46	1	794	4
123600-A	2	149242-A	4	157342-A	4	177600-A	2	85	1	795	4
123601-A	2	149520-B	2	157344-A	4	177620-A	2	97	4	801	4
124265-A	1	149521-A	2	157346-A	4	177640-A	2	106	1	802	4

Only participants in the NMFC at the time the transportation occurs may use the provisions herein.
For explanation of abbreviations and reference marks, see last page of this Supplement. ©NMFTA 2021

CUMULATIVE LIST OF ITEMS AND NUMBERED PACKAGES IN SUPPLEMENTS

Listed below are items and numbered packages that have been added, amended or brought forward in this supplement and previous supplements.

PACKAGE	SUP	PACKAGE	SUP	PACKAGE	SUP	PACKAGE	SUP	PACKAGE	SUP	PACKAGE	SUP
814	4	846	4	934	4	1380	1	2226	1	2387	4
818	4	868	4	978	4	1381	1	2304	4	2388	4
825	4	870	4	1014	1	1388	1	2305	4	2395	1
826	4	881	4	1029	4	1425	1	2322	1	2413	4
827	4	886	4	1190	1	2009	1	2332	4	2467	1
834	4	911	4	1266	4	2032	1	2336	1	2508	4
838	4	919	4	1291	1	2144	4	2369	1	2529	4
841	4	932	4	1306	4	2180	1	2379	1		

INDEX TO ARTICLES

Article	Item	Article	Item	Article	Item
A		Boxes:		Charcoal Briquettes or Charcoal Pellets	
Ⓟ Accelerators, rubber, NOI	171410	Ⓟ Album, book, magazine or reference text holding or organizing, fiberboard or paperboard	29785	Ⓟ Charcoal Briquettes or Charcoal Pellets, NOI, not activated, not required by DOT to bear a Hazard Class or Hazard Division label or placard	42445
Ⓟ Accelerators, rubber, NOI, not required by DOT to bear a Hazard Class or Hazard Division label or placard	171410	Ⓟ Album, book, magazine or reference text holding or organizing, fiberboard, paperboard or wood	29785	Ⓟ Cheese:	
Adhesive(s):		Ⓟ Ammunition	29790	Ⓟ Dehydrated or dried, granulated, grated or powdered	55450
Ⓟ Sprayable product	42652	Ⓟ Ammunition, NOI	29900	Ⓟ Imitation, made from vegetable oils	72330
Ⓟ Sprayable product, not required by DOT to bear a Hazard Class or Hazard Division label or placard	42652	Ⓟ Cheese, cylindrical, wooden	29080	Ⓟ NOI	55470
Ⓟ Adjuvants, sprayable product	42652	Ⓟ Chemically hardened fiber	29780	Ⓟ Spoiled or stale, not refrigerated	55490
Ⓟ Adjuvants, sprayable product, not required by DOT to bear a Hazard Class or Hazard Division label or placard	42652	Ⓟ Cigar, fiberboard or wooden	29110	Ⓟ Cheese and potatoes, in sauce	73227
Ⓟ Aluminum Phosphate	42870	Ⓟ Core, wooden	29140	Ⓟ Cheese Crisps	73260
Ⓟ Ammonia, aqua, NOI	42920	Ⓟ Fishing tackle	29790	Ⓟ Cheese Food, NOI	55470
Ⓟ Ammoniacal Liquor, NOI	42920	Ⓟ Fishing tackle, NOI	29900	Ⓟ Cheese, imitation	72330
Ⓟ Ammonium Silicofluoride	43080	Ⓟ Oil cake press	126040, 126060	Ⓟ Cheese or Cheese Food	55470
Ⓟ Amyl Chloride	43170	Ⓟ Oil cake press, iron or steel	126060	Ⓟ Cheese Snacks, dried	73260
Ⓟ Amyl Phenol	43180	Ⓟ Tool	29790	Ⓟ Cheese, spoiled or stale	55490
Ⓟ Antimony Salts, NOI	43230	Ⓟ Tool, NOI	29900	Chests:	
Ⓟ Antimony Sulfides, NOI	43260	Ⓟ Wood and wire combined, NOI	29810	Ⓟ Ammunition	29790
Ⓟ Antimony, sulfurated	43260	Ⓟ Wood, NOI	29785	Ⓟ Ammunition, NOI	29900
Ⓟ Aqua Ammonia, NOI	42920	Ⓟ Wooden, NOI, capacity less than 135 cu. ft.	29800	Ⓟ Fishing tackle	29790
Ⓟ Arsenic Disulfide	43290	Ⓟ Wooden, NOI, capacity not less than 135 cu. ft.	29805	Ⓟ Fishing tackle, NOI	29900
Ⓟ Arsenic, red (Arsenic Disulfide)	43290	Bran:		Ⓟ Tool	29790
Ash(es):		Ⓟ Mold	89710	Ⓟ Tool, NOI	29900
Ⓟ Lead	110120	Briquettes:		Chips:	
Attachments:		Ⓟ Charcoal	42480	Ⓟ Wood, not charred	113560
Ⓟ Grading - as listed	122000	Ⓟ Charcoal, NOI, not activated, not required by DOT to bear a Hazard Class or Hazard Division label or placard	42445	Ⓟ Chunks, wood, not charred	113560
Ⓟ Grading - specific listing	122000	Ⓟ Bullion, lead base	110160	Clippers:	
Ⓟ Road making - as listed	122000	Butter(s):		Ⓟ Oat or rice	116670
Ⓟ Road making - specific listing	122000	Ⓟ Fruit	73227	Clippings:	
B		Ⓟ Fruit, canned or preserved	73365	Ⓟ Mink hide, pelt or skin	98870
Ⓟ Baking Soda	46220	C		Coating(s):	
Ⓟ Ballasts, lamp	60630, 194250	Cabinets:		Ⓟ Ink, not required by DOT to bear a Hazard Class or Hazard Division label or placard	101720
Ⓟ Ballasts, lamp, not enclosed in lamp channels or chassis	60630	Ⓟ Ammunition, NOI	29900	Collars:	
Ⓟ Ballasts, lamp, old, spent	194250	Ⓟ Fishing tackle, NOI	29900	Ⓟ Retort, graphite	89990
Balls:		Ⓟ Garage, storage	39340	Compound(s):	
Ⓟ Inflated, NOI	15560, 84260	Ⓟ Shop, storage	39340	Ⓟ Food coating (prebreeding mix), milk and egg, dry	73227
Ⓟ Inflated, NOI, official or regulation size and weight	15560	Ⓟ Storage, tool or parts	39340	Ⓟ Gas absorbing	50195
Ⓟ Inflated, NOI, other than official or regulation size and weight	84260	Ⓟ Tool	39340, 39455, 39460	Ⓟ Gas absorbing, NOI	50195
Ⓟ Lightning rod, glass	87590	Ⓟ Tool, NOI	29900	Ⓟ Motor fuel antiknock, poison	45615
Band(s):		Ⓟ Candle Sets	56290	Cookers:	
Ⓟ Plant	112980	Ⓟ Candle Sets, consisting of Wax Candle and Plastic Floral Designs	56290	Ⓟ Cereal, nickel	118220
Ⓟ Baptistries	21470	Cans:		Copper:	
Ⓟ Baptistries, plastic	21470	Ⓟ Chemically hardened fiber	29780	Ⓟ Chromium	135620
Beans:		Ⓟ Cream aerating or cooling	117360	Ⓟ Sheet, electrolytically deposited	30800
Ⓟ Edible, NOI, canned or preserved	73365	Ⓟ Cream separating	119060	Ⓟ Silicon	136260
Ⓟ Beans and Pork, canned or preserved	73227	Ⓟ Milk aerating or cooling	117360	Cord:	
Ⓟ Bicycles	189800	Ⓟ Roving	29780	Ⓟ Kite, natural or synthetic fiber	53391
Ⓟ Bicycles, other than self-propelled	189800	Caps:		Crates:	
Ⓟ Bidet Seats, NOI	159005	Ⓟ Paper, NOI	98390	Ⓟ Wood and wire combined, NOI	29810
Black(s):		Cartridges:		Ⓟ Wood, NOI	29785
Ⓟ Aerated coal	23975	Ⓟ Gas absorbing compound	50195	Ⓟ Wooden, NOI, capacity less than 135 cu. ft.	29800
Ⓟ Aerated, coal, powdered	23975	Cases:		Ⓟ Wooden, NOI, capacity not less than 135 cu. ft.	29805
Blades:		Ⓟ Map	81370	Ⓟ Creme, marshmallow	73260
Ⓟ Box, tractor attaching	122000	Charcoal:		Ⓟ Crisps, bagel, bread, cheese, corn, fruit, potato or vegetable	73260
Bodies:		Ⓟ Animal	27720	Ⓟ Crisps, bagel, bread, corn, fruit, potato or vegetable	73260
Ⓟ Roving can	29780	Ⓟ NOI, not activated, not required by DOT to bear a Hazard Class or Hazard Division label or placard	42445	Crystals:	
Bone(s):		Ⓟ Other than animal or wood, NOI, not activated	42460	Ⓟ Galvanizing blanket	83740
Ⓟ Charred filtering	27720	Ⓟ Wood, NOI, not activated	42470	Cups:	
Ⓟ Meat	134570	Ⓟ Woodpulp, not activated	200070	Ⓟ Paper, NOI, nested or KD flat	152840
Ⓟ Box Blades, tractor attaching	122000			Ⓟ Paper, pulpboard or wood pulp, NOI, nested or KD flat	152840

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Cups: (Cont'd)		Fittings:		Lining(s):	
ⓑPulpboard or wood pulp, NOI, nested or KD flat.....	152840	ⓑToilet, other than seats or tank floats.....	158880	ⓑCheese or milk vat, metal.....	117240
Cutters:		ⒶToilet, other than toilet tank floats or toilet or bidet seats.....	158880	ⓑLint Removers, hand held, or Lint Remover Refills.....	56290
ⓑSod.....	186080	Fixtures:		ⒶLint Removers, handheld, or Lint Remover Refills.....	56290
ⒶSod, power.....	130207	ⒶBathroom, NOI.....	158880	Liquor(s):	
D		ⓑBathroom or lavatory, NOI.....	158880	ⓑAmmoniacal, NOI.....	42920
ⓑDelinters, seed.....	126120	ⒶLavatory, NOI.....	158880	ⓑSodium cyanide.....	46300
Devices:		Food(s):		M	
ⓑPacking, internal combustion engine, mechanical power train or running gear maintenance or repair.....	194130	ⓑCheese.....	55470	Machinery or Machines:	
ⓑDisinfectants:		ⒶCheese, NOI.....	55470	ⓑCan washing, cheese factory, creamery or dairy.....	117200
ⓑLiquid, corrosive.....	44155	ⓑFoodstuffs, other than frozen, group I.....	73227	ⓑCheck protecting.....	115880
ⓑLiquid or solid, toxic.....	45615	Fruit(s):		ⓑFlour bolting or scalping, NOI, reel or sieve.....	116730
ⓑNOI, other than medicinal or toilet preparations, not required by DOT to bear a Hazard Class or Hazard Division label or placard.....	57100	ⓑCanned, NOI.....	73365	ⓑMeal bolting or scalping, NOI, reel or sieve.....	116730
ⒶDisinfectants, NOI, other than medicinal or toilet preparations, not required by DOT to bear a Hazard Class or Hazard Division label or placard.....	57100	ⓑDrained.....	73227	ⓑVanning.....	125660
Dispensers:		ⓑPickled or preserved, NOI.....	73227	ⒶManifolds, gas, furnace, stove or heater, without valves.....	26660
ⓑGround coffee, household.....	100800	ⒶPreserved, NOI.....	73365	ⓑManifolds, gas, furnace, stove or heater, without valves, not enameled nor plated.....	26660
ⓑMalting milk, household.....	100800	G		Markers:	
ⓑTea, household.....	100800	ⒶGas Manifolds, furnace, stove or heater, without valves.....	26660	ⓑTalc.....	134100
ⒶDoll Heads or Doll Bodies.....	84100	Gaskets:		ⒶMarmalades, canned or preserved, NOI.....	73365
ⓑDough, prepared.....	72800	ⓑInternal combustion engine maintenance or repair.....	194130	ⓑMarshmallow Creme.....	73260
ⒶDough, prepared, other than frozen...	72800	ⓑMechanical power train maintenance or repair.....	194130	Material(s):	
Dross:		ⓑRunning gear maintenance or repair	194130	ⓑBox, wood and wire combined, folded or in panels.....	29810
ⓑBabbitt metal.....	135660	Grease:		ⓑBox, wooden, fiberboard or paper covered, in shooks or panels, NOI	112360
ⓑLead.....	110270	ⓑTanners'.....	90970	ⓑBox, wooden, in panels.....	29800
Dust:		Gum(s):		ⓑCrate, wood and wire combined, folded or in panels.....	29810
ⓑFlue, lead.....	110290	ⓑAccroides.....	91120	ⓑCrate, wooden, fiberboard or paper covered, in shooks or panels, NOI	112360
E		ⓑAloes.....	91140	ⓑCrate, wooden, in panels.....	29800
Extender(s):		ⓑBalta.....	91200	ⓑShipping drum, wooden, fiberboard or paper covered, in shooks or panels, NOI.....	112360
ⓑMilk powder, blended.....	73227	ⓑBox toe.....	91220	Mats:	
ⓑExtensions:		ⓑCongo.....	91280	ⓑBlasting, rope, NOI.....	134220
ⓑTailpipe, automobile, steel, copper plate or terne plate.....	125850	ⓑIlles.....	91400	ⓑBowling pit, rope, NOI.....	134220
ⓑTire.....	131620	ⓑKauri.....	91440	Meal:	
ⓑTrough, elevator.....	9125	ⓑKawrie.....	91440	ⓑHoof or horn.....	134280
ⒶExtensions, tailpipe, automobile, steel, copper plate or terne plate....	125850	H		ⓑKapok seed.....	134300
ⒶExtensions, trough; forage, grain or hay handling elevator conveyor.....	9125	Hats:		ⓑMincemeat.....	73227
F		ⓑPaper, NOI.....	98390	Mix(es):	
Faucets:		Hides:		ⓑPrebreeding (food coating compounds), milk and egg, dry.....	73227
ⒶBathtub, drinking fountain, lavatory, laundry tub, shower, sink or urinal	158400	ⓑSea animal or sea fish, NOI, not dressed nor tanned, green salted ...	99250	Mixture(s):	
ⓑBathtub, drinking fountain, lavatory, laundry tub, shower, sink or urinal, other than plastic.....	158400	ⓑHominy, canned or preserved.....	73227	ⓑMotor fuel antiknock, poison.....	45615
Files:		I		ⓑMush.....	72310
ⓑAlbum, book, magazine or reference text holding or organizing, fiberboard or paperboard.....	29785	Implements:		Mushrooms:	
ⒶAlbum, book, magazine or reference text holding or organizing, fiberboard, paperboard or wood.....	29785	ⒶGrading - as listed.....	122000	ⓑCanned.....	73227
Filler(s):		ⓑGrading - specific listing.....	122000	ⒶCanned, other than truffles.....	73365
ⓑBattery, glass.....	87630	ⒶRoad making - as listed.....	122000	ⓑPreserved.....	73227
ⓑFish Roe, other than caviar; cooked, pickled or preserved.....	73227	ⓑRoad making - specific listing.....	122000	ⒶPreserved, other than truffles.....	73365
		ⒶIntravenous Solutions.....	59380	N	
		J		ⒶNutmeats in Syrup.....	73260
		ⒶJams, canned or preserved, NOI.....	73365	ⓑNutmeats, in syrup or liquor, not pickled.....	73227
		ⓑJams, edible, NOI.....	73227	Nuts:	
		ⒶJellies, canned or preserved, NOI.....	73365	ⒶIn syrup.....	73260
		ⓑJellies, edible, NOI.....	73227	ⓑIn syrup or liquor, not pickled.....	73227
		K		ⓑPickled, NOI.....	73227
		Kits:			
		ⒶOvulation test.....	56975		
		ⓑPregnancy test.....	56975		
		L			
		ⓑLaminates, plastic or rubber.....	156900, 156905		

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O					
ⓑOdorants, gas.....	45460	ⓑRed Arsenic.....	43290	Sheet(s):	
ⓑOlives.....	73227	Retorts:		ⒶCopper, electrolytically deposited.....	30800
ⒶOlives, canned or preserved.....	73365	ⓑGraphite.....	89990	Shells:	
ⒶOvulation Tests or Test Kits.....	56975	ⓑRoe, fish, other than caviar; cooked, pickled or preserved.....	73227	ⓑConverter, iron.....	125600
P					
Paste(s):		Roll(s):		Skimmings:	
ⓑTomato.....	73227	ⒶAccounting card machine ink.....	115720	ⓑBabbitt metal.....	135660
ⒶTomato, canned or preserved.....	73365	Rubber:		ⓑLead.....	110270
Peel:		ⓑExpanded, ground or shredded.....	157320	Skins:	
ⓑCitrus fruit, in brine.....	73227	ⒶExpanded; ground or shredded.....	157320	ⓑHog, not dressed nor tanned, frozen.....	99190
ⓑFruit, drained.....	73227	ⓑRubber Accelerators or Softeners, NOI.....	171410	ⓑHog, not dressed nor tanned, green salted, not frozen.....	99200
Pellets:		ⒶRubber Accelerators or Softeners, NOI, not required by DOT to bear a Hazard Class or Hazard Division label or placard.....	171410	ⓑHog, not dressed nor tanned, pickled.....	99210
ⓑCharcoal.....	42480	S			
ⒶCharcoal, NOI, not activated, not required by DOT to bear a Hazard Class or Hazard Division label or placard.....	42445	Salads:		ⓑOstrich, not dressed nor tanned, green, green salted or pickled.....	99230
Pelts:		ⓑFish.....	73227	ⓑPig, not dressed nor tanned, frozen.....	99190
ⓑSea animal or sea fish, NOI, not dressed nor tanned, green salted.....	99250	ⓑFruit.....	72770	ⓑPig, not dressed nor tanned, green salted, not frozen.....	99200
ⒸPickles, NOI.....	73365	ⓑMacaroni.....	73227	ⓑPig, not dressed nor tanned, pickled.....	99210
ⓑPimientos, canned.....	73227	ⓑMeat.....	73227	ⓑSea animal or sea fish, NOI, not dressed nor tanned, green salted.....	99250
ⒶPimientos, canned or preserved.....	73365	ⓑPasta.....	72770	ⓑSlipcases, album, book, magazine or reference text holding or organizing, fiberboard or paperboard.....	29785
Plates:		ⓑVegetable.....	72770, 73227	ⒶSlipcases, album, book, magazine or reference text holding or organizing, fiberboard, paperboard or wood.....	29785
ⓑOil cake press, brass or brass and iron.....	126040	ⒶSalads, fruit, pasta or vegetable.....	72770	ⒶSnacks, cheese, dried.....	73260
Pockets:		Salt(s):		ⒶSod Cutters, power.....	130207
ⓑAlbum, book, magazine or reference text holding or organizing, fiberboard or paperboard.....	29785	ⓑAntimony, NOI.....	43230	Soda:	
ⒶAlbum, book, magazine or reference text holding or organizing, fiberboard, paperboard or wood.....	29785	Sauce(s):		ⒶBaking.....	46220
ⓑPork and Beans, canned or preserved.....	73227	ⒸDessert, NOI.....	73260	ⓑSodium Bichromate.....	46160
ⒶPorridge.....	72310	ⒸIce cream, NOI.....	73260	ⓑSodium Bifluoride.....	46170
ⓑPotatoes and cheese, in sauce.....	73227	Scooters:		ⓑSodium Bisulfite, dry.....	46180
Pots:		ⓑChildren's.....	189800	ⓑSodium Bisulfite, liquid.....	46190
ⓑForehearth.....	125540	ⒶChildren's, other than self-propelled.....	189800	ⓑSodium Cyanide Liquor.....	46300
ⓑSettling.....	125540	ⓑScrapple, canned.....	73227	ⓑSodium Oxalate.....	46460
ⓑPregnancy Test Kits.....	56793	Scrap(s):		ⓑSodium Resinate.....	46540
ⒶPregnancy Tests or Test Kits.....	56975	ⓑMink hide, pelt or skin.....	98870	ⓑSodium Silicate, dry.....	46570
Preparations:		Seats:		ⓑSodium Sulfide.....	46640
ⓑBeverage, NOI.....	74490	ⒶBicycle.....	172670	ⓑSodium Zincate.....	46700
ⒶBeverage, NOI, other than straws containing beverage preparations.....	74490	ⓑBicycle or boat.....	172670	Softeners:	
ⓑDessert.....	72760	ⒶBidet, NOI.....	159005	ⓑRubber, NOI.....	171410
ⒶDessert, NOI, other than frozen.....	72760	ⒶBoat.....	172670	ⒶRubber, NOI, not required by DOT to bear a Hazard Class or Hazard Division label or placard.....	171410
ⒶPreserves, canned or preserved, NOI.....	73365	ⓑToilet, hollow-molded plastic or rubber.....	156600	Solution(s):	
ⓑPreserves, edible, NOI.....	73227	ⒶToilet, NOI.....	159005	ⓑAnticoagulant.....	59380
ⓑPuddings.....	73227	ⓑToilet, other than hollow-molded plastic and other than with cellular or expanded plastic cushioning.....	159003	ⓑNOI.....	59380
Pulp:		ⓑWater closet, hollow-molded plastic or rubber.....	156600	ⓑNutritional.....	59380
ⓑFruit.....	73227	ⓑWater closet, other than hollow- molded plastic and other than with cellular or expanded plastic cushioning.....	159003	ⓑSaline.....	59380
ⒶFruit, canned or preserved.....	73365	Separators:		Spreaders:	
ⓑMineral.....	137360	ⓑCream, gravity.....	119060	ⓑSprayable product.....	42652
ⒶMineral; papermakers', calcium aluminate, lithopone pulp or satin white.....	137360	Sets:		ⒶSprayable product, not required by DOT to bear a Hazard Class or Hazard Division label or placard.....	42652
ⓑTomato.....	73227	ⓑCandle.....	56290	ⒶSprinkles, ice cream or dessert topping.....	73260
ⒶTomato, canned or preserved.....	73365	ⒶCandle, consisting of wax candle and plastic floral designs.....	56290	ⒶSteel Wool, NOI.....	200160
Pumps:		ⓑSmokers', glass.....	88540	ⓑStickers, sprayable product.....	42652
ⓑLink belt box water elevator.....	127760	ⓑToilet.....	88540, 183420, 183440	ⒶStickers, sprayable product, not required by DOT to bear a Hazard Class or Hazard Division label or placard.....	42652
ⓑPuree, tomato.....	73227	ⒶToilet, not plated nor trimmed with silver or other precious metals.....	183440	Straps:	
ⒶPuree, tomato, canned or preserved.....	73365	ⒶToilet, silver-plated or silver-trimmed.....	183420	ⓑLug, textile machine.....	131310
R					
Racks:		Sheeting:		ⓑString:	
ⓑCanning, KD flat or bodies nested.....	116400	ⒶExpanded plastic or rubber, NOI.....	157320	ⓑKite, natural or synthetic fiber.....	53391
		ⒶExpanded polypropylene, polyethylene or polystyrene, density less than 1 pcf.....	157463	ⓑNOI.....	53390
		ⓑPlastic or rubber, expanded.....	157320, 157463	ⓑWorn-out.....	196200

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ⒶString, NOI	53390	Trimmings: (Cont'd)		Ventilators: (Cont'd)	
ⒶString, worn-out	196200	ⒷHog hide, not dressed nor tanned, green salted, not frozen	99200	ⒶDoor, steel or steel with wooden frames	97470
Subassemblies:		ⒷHog hide, not dressed nor tanned, pickled	99210	ⒷWindow, steel or steel with wooden frame	97470
ⒷBulb or tube, glass.....	87810	ⒷPig hide, not dressed nor tanned, frozen	99190	ⒶWindow, steel or steel with wooden frames	97470
ⒶGlass bulb or tube	87810	ⒷPig hide, not dressed nor tanned, green salted, not frozen	99200		
ⒷSulfurated Antimony	43260	ⒷPig hide, not dressed nor tanned, pickled	99210	W	
Switches:		ⒷTrisodium Phosphate, chlorinated	46670	Washers:	
ⒷCattle, not dressed nor tanned, dry...	99320	Trucks:		ⒷInternal combustion engine maintenance or repair	194130
ⒷHorse, not dressed nor tanned, dry...	99320	ⒷCoal cutting machine conveying	125640	ⒷMechanical power train maintenance or repair	194130
T				ⒷRunning gear maintenance or repair	194130
ⒷTails, cattle or horse, not dressed nor tanned, dry	99320	U		Water:	
ⒶTests or Test Kits, pregnancy or ovulation	56975	ⒷUnicycles	189800	ⒶDistilled.....	196500
ⒶToilet Seats, children's	172700	ⒶUnicycles, other than self-propelled	189800	ⒷDistilled, intravenous.....	59380
ⒶToilet Seats, NOI.....	159005	Units:		ⒷDistilled, plain	59380
ⒷTomatoes, canned	73227	ⒶRadiator, windowsill height	26860	ⒷDistilled, saline.....	59380
ⒶTomatoes, canned or preserved.....	73365	ⒶVentilator, windowsill height.....	26860	ⒸPlain	196500
ⒷToppings:		ⒷWindowsill height radiator or ventilator.....	26860	ⒶSterile, intravenous.....	59380
ⒷDessert, aerated	74000	V		Weights:	
ⒷDessert, NOI.....	73227	Vegetables:		ⒷDress, lead	110497
ⒷIce cream, NOI	73227	ⒸCanned, NOI	73365	ⒶWood Chips or Wood Chunks, not charred	113560
ⒶToppings, dessert, aerated	74000	ⒷPickled or preserved, NOI.....	73227	ⒷWoodpulp:	
ⒶToppings, ice cream or dessert, NOI, in other than pressurized containers	73260	ⒶPreserved, NOI.....	73365	ⒷCharred	200070
ⒷTricycles, adult	189620	Vehicles:		ⒷNOI, not powdered	200080
ⒶTricycles, adult, other than self- propelled	189620	ⒷChildren's, NOI	189800	ⒷPulverized	198200
ⒷTricycles, children's	189800	ⒶChildren's, NOI, other than self- propelled	189800	ⒶWoodpulp, not powdered, NOI	200080
ⒶTricycles, children's, other than self- propelled	189800	Ventilators:		ⒶWoodpulp, pulverized	198200
Trimmings:		ⒷDoor, steel or steel with wooden frame	97470	Wool:	
ⒷHog hide, not dressed nor tanned, frozen	99190			ⒷSteel	200160
				ⒶSteel, NOI.....	200160
				ⒷWort, brewers'	72260
				ⒶWort, brewers', dry	72260

RULES

ITEM 180-A

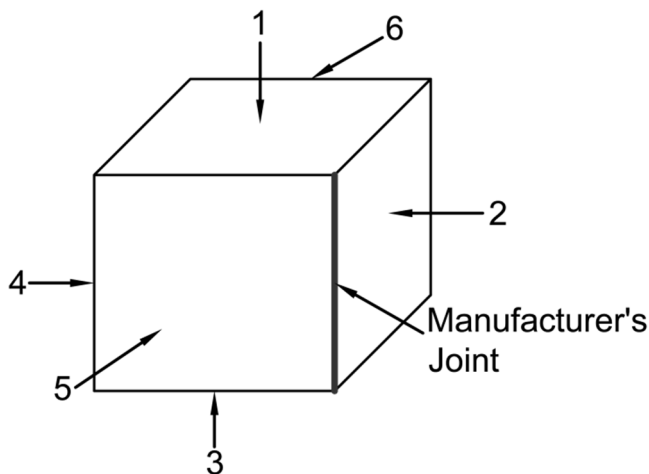
PERFORMANCE TESTING OF SHIPPING CONTAINERS

► This rule provides an alternative to the other packaging rules (except those relating to drums, pails and bags) and the Numbered Packages. It is recommended for solving chronic damage problems and for providing an acceptable assurance level of packaging for articles of great value. In order to qualify as authorized methods of packaging under this rule, shipping containers, including palletized loads, must be preshipment tested and successfully pass the following prescribed performance test requirements and meet the acceptance criteria as indicated.

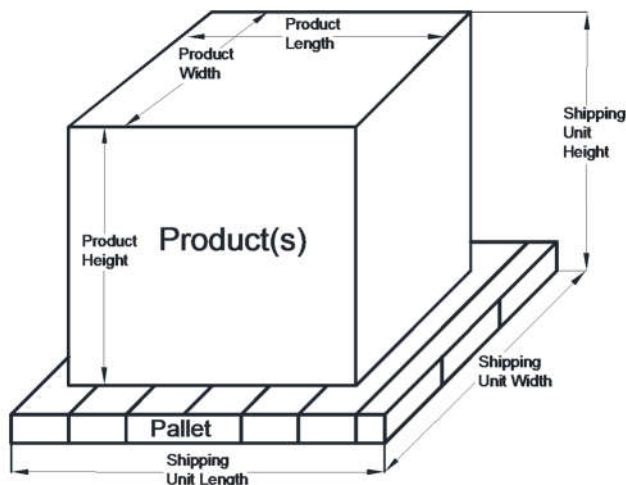
Shippers will be required to perform the specified minimum tests as often as necessary to maintain a satisfactory performance level of the packaged article (see Section VII. Certification). Multiple test specimens are recommended when available and all specimens tested must pass.

This rule does not purport to address all of the safety issues, if any, associated with its use. It is the responsibility of the user of this rule to establish appropriate safety and health practices and to determine the applicability of regulatory limitations or requirements prior to use.

Orientation and Nomenclature for Test Specimens Consisting of a Shipping Container without Lift Truck Skid or Pallet Outside Base: For test specimens consisting of a shipping container not on or not having a lift truck skid or pallet outside base, place the container in its normal shipping orientation with the front facing forward and then proceed with marking the faces according to the diagram shown below. Note the Manufacturer's Joint, when present, may or may not be located in the same position as shown in the diagram.



Orientation and Nomenclature for Test Specimens with Lift Truck Skid or Pallet Outside Base: For test specimens consisting of one or more shipping containers on or having a lift truck skid or pallet outside base, place the shipping unit in its normal shipping orientation with the front facing forward. Use the diagram below to determine the dimensions of the product(s), and the overall dimensions of the shipping unit.



PERFORMANCE TEST REQUIREMENTS: All applicable shipping units must be tested as follows:

Section I. Conditioning

Except as provided in Note 1, all specimens must be conditioned in an atmosphere of 73°F (23°C) minimum and 50% RH minimum for at least 24 hours for paper-based packaging and 12 hours for all others. Testing should be conducted in the same minimum atmosphere, and conditions must be recorded for each test conducted. If testing cannot be conducted in the minimum atmosphere, conduct the tests as soon as possible after the packaged products have been stored for 24 hours in the testing environment.

NOTE 1—Alternatively, fiberboard packaging may be conditioned in an atmosphere of 40°F (4°C) and 85% RH or 100°F (38°C) and 85% RH for at least 72 hours.

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Section II. Compression/Vibration Test

Two alternate methods of testing are permissible: Method (A)—Stacked Compressive Load/Vibration Testing, or Method (B)—Separate Compressive Load/Vibration Testing. Either may be utilized, depending on test capability or product characteristics. Unless the shipping container has a lift truck skid or pallet outside base, or is marked with upright arrow symbols, the container must be tested on Faces 3, 4 and 6. If the shipping unit has either a lift truck skid or pallet outside base or is marked with upright arrow symbols, the compressive load or force requirements in Methods (A) and (B) for Faces 4 and 6 may be omitted. If the shipping unit is 6 ft (1.83 m) or taller in height, and has a lift truck skid or pallet outside base, the compressive load or force requirements in Methods (A) and (B) may be omitted.

Method (A)—Stacked Compressive Load/Vibration Testing

Shipping units must be vibration tested under a stacked compressive load using either an identical shipping unit, or a concentrated dead weight load as described below.

(1) **Calculating Concentrated Dead Weight Loads:** When conducting concentrated dead weight load vibration tests, the size of the package changes with the three shipping orientations of the package, and the concentrated dead load weights on the top of the package will change accordingly. Use a concentrated dead load (see Description of Load Apparatus in Paragraph (2)(a) below) to simulate miscellaneous freight loaded on top of a floor-stowed shipping unit in a trailer. Determine the required loads, rounded to the nearest 5 pounds (lbs), from the formulas in Table 1 or 2:

Table 1: Method (A) Load Calculation

Orientation — Face 3 Down:

$$\text{LOAD} = \frac{10 \times (108 - h) \times (l \times w)}{1728}$$

Orientation — Face 4 Down:

$$\text{LOAD} = \frac{10 \times (108 - w) \times (l \times h)}{1728}$$

Orientation — Face 6 Down:

$$\text{LOAD} = \frac{10 \times (108 - l) \times (w \times h)}{1728}$$

Where:	LOAD =	pounds (lbs)
	10 =	average density of LTL freight (pcf)
	108 =	inside height of trailer (in), see Note 2
	1728 =	conversion factor (in ³ /ft ³)
	h =	height of product(s) or shipping unit (in)
	l =	length of product(s) (in)
	w =	width of product(s) (in)

Table 2: Method (A) Load Calculation (Metric)

Orientation — Face 3 Down:

$$\text{LOAD} = 162 \times (2.7 - h) \times (l \times w) \times 9.8$$

Orientation — Face 4 Down:

$$\text{LOAD} = 162 \times (2.7 - w) \times (l \times h) \times 9.8$$

Orientation — Face 6 Down:

$$\text{LOAD} = 162 \times (2.7 - l) \times (w \times h) \times 9.8$$

Where:	LOAD =	kilograms (kg)
	162 =	average density of LTL freight (kg/m ³)
	2.7 =	inside height of trailer (m), see Note 2
	h =	height of product(s) or shipping unit (m)
	l =	length of product(s) (m)
	w =	width of product(s) (m)
	9.8 =	metric conversion factor (m/s ²)

NOTE 2—If the package weighs less than 30 lbs (14 kg) or is 2 ft³ (0.056 m³) or less in size, the factor is reduced to 54 in (1.4 m) instead of 108 in (2.7 m).

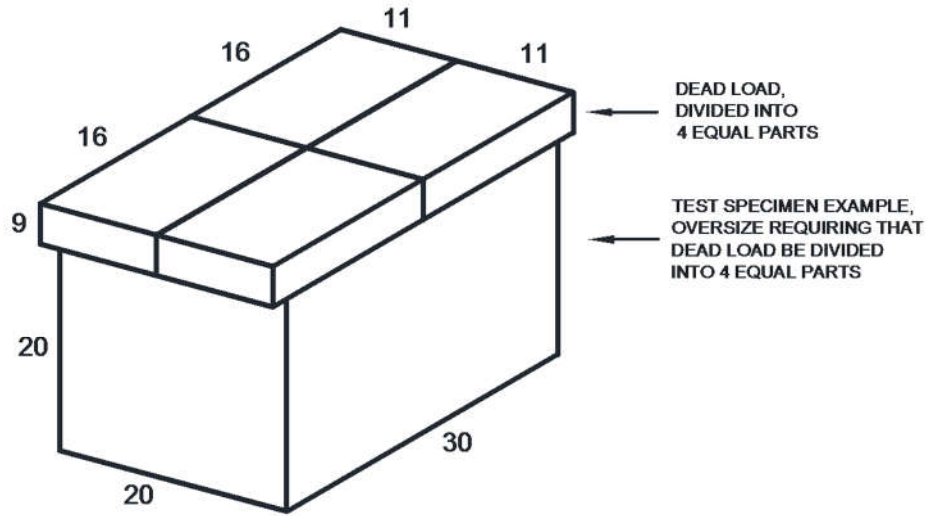
(2)(a) **Description of Load Apparatus:** The concentrated dead load shall consist of the following: corrugated trays or HSC-style container(s) of doublewall construction having a corrugated medium maximum basis weight of 33 lbs (15 kg); a plywood sheet with a minimum thickness of 0.5 in (13 mm) resting inside the container on the complete area of the bottom inner flaps of the container; and a block of lead or sand contained in plastic bag(s) evenly distributed over the bottom surface of the container to complete the required calculated load (sand weighs approximately 110 pcf (50 kg/m³)). The dead load container(s) must be larger than the test specimen, but must not overhang the specimen by more than 1.5 in (38 mm). The dead load container(s) must be affixed so that it cannot move inside the perimeter of the test specimen during testing. The test specimen should not be fastened to the vibration table and should be allowed some lateral movement, yet restricted so that it does not move from under the perimeter of the dead load.

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(2)(b) When test units have large top surfaces, i.e., any dimension exceeding 18 in (0.46 m), the dead load must be subdivided into smaller portions. If only one dimension exceeds 18 in (0.46 m), the load must be divided into two equal portions along the longer dimension. If both dimensions exceed 18 in (0.46 m), the load must be divided into four equal portions, as shown in the diagram below.



DEAD LOAD,
DIVIDED INTO
4 EQUAL PARTS

TEST SPECIMEN EXAMPLE,
OVERSIZE REQUIRING THAT
DEAD LOAD BE DIVIDED
INTO 4 EQUAL PARTS

EXAMPLE OF CONCENTRATED DEAD LOAD ON TEST SPECIMEN FOR RANDOM VIBRATION TEST

TEST SPECIMEN SHOWN IN EXAMPLE MEASURES 30" X 20" X 20", LARGER THAN 18" IN BOTH LENGTH AND WIDTH, REQUIRING THAT THE DEAD LOAD BE DIVIDED INTO 4 EQUAL PARTS.

(3) **Vibration Testing:** Properly position either the identical shipping unit or the concentrated dead weight load on the shipping unit. Using procedure ASTM D4169 Schedule D, Assurance Level II, for random vibration under a stacked compressive load, test the shipping unit. Conduct the vibration testing on all three faces, except as noted below. Face 3 must be tested for one hour and Faces 4 and 6 must be tested for 30 minutes each, for a total duration of two hours. If the shipping unit has either a lift truck skid or pallet outside base or is marked with upright arrow symbols, only Face 3 must be vibrated under the compressive load for two hours.

Method (B)—Separate Compressive Load/Vibration Testing

Shipping units must be subjected to compression and vibration in separate tests. The compression test is conducted first and then the same shipping unit is vibration tested.

(1) **Compression Testing:** Except as noted below, compression testing is required to be conducted on Faces 3, 4 and 6 of the same shipping unit, using either a machine compression test (per ASTM D642) or a constant load (dead weight) test (per ASTM D4577), see Table 3. When conducting compression tests, the size of the package changes with the three shipping orientations of the package, so the required concentrated forces or dead loads on the top of the package will change accordingly. Using the formulas below in Table 4 or 5, calculate the required force or load, depending upon which compression method is used, for each of the three faces, rounded to the nearest 5 pounds force (lbf) or pounds (lbs), respectively. Apply the required compressive force or load on the shipping unit depending upon selected method found in Table 3. If the shipping container has a lift truck skid or pallet outside base, or is marked with upright arrow symbols, only Face 3 should be compressed.

Table 3: Compression Method

Compression Type	Length of Compression Time	Compression Value Designation
Machine Compression Test per ASTM D642	Remove immediately once required force is reached	FORCE
Constant Load (Dead Weight) Test per ASTM D4577	1 hour/face	LOAD

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Table 4: Method (B) Force or Load Calculation

Orientation — Face 3 Down:

$$\text{FORCE or LOAD} = \frac{10 \times (108 - h) \times (l \times w) \times \text{DF}}{1728}$$

Orientation — Face 4 Down:

$$\text{FORCE or LOAD} = \frac{10 \times (108 - w) \times (l \times h) \times \text{DF}}{1728}$$

Orientation — Face 6 Down:

$$\text{FORCE or LOAD} = \frac{10 \times (108 - l) \times (w \times h) \times \text{DF}}{1728}$$

Where:	FORCE =	pounds force (lbf)
	or	or
	LOAD =	pounds (lbs)
	10 =	average density of LTL freight (pcf)
	108 =	inside height of trailer (in), see Note 3
	1728 =	conversion factor (in ³ /ft ³)
	DF =	Design Factor from Table 6

Table 5: Method (B) Force or Load Calculation (Metric)

Orientation — Face 3 Down:

$$\text{FORCE or LOAD} = 162 \times (2.7 - h) \times (l \times w) \times \text{DF} \times 9.8$$

Orientation — Face 4 Down:

$$\text{FORCE or LOAD} = 162 \times (2.7 - w) \times (l \times h) \times \text{DF} \times 9.8$$

Orientation — Face 6 Down:

$$\text{FORCE or LOAD} = 162 \times (2.7 - l) \times (w \times h) \times \text{DF} \times 9.8$$

Where:	FORCE =	Newtons of force (Nf)
	or	or
	LOAD =	Newtons (N)
	162 =	average density of LTL freight (kg/m ³)
	2.7 =	inside height of trailer (m), see Note 3
	h =	height of product(s) or shipping unit (m)
	DF =	Design Factor from Table 6
	9.8 =	metric conversion factor (m/s ²)

NOTE 3—If the package weighs less than 30 lbs (14 kg) or is 2 ft³ (0.056 m³) or less in size, the factor is reduced to 54 in (1.4 m) instead of 108 in (2.7 m).

Table 6: Design Factor

Shipping Unit Construction	Design Factor (DF)	
	Machine Compression ASTM D642	Dead Weight ASTM D4577
(a) A corrugated fiberboard or plastic container that may or may not have stress-bearing interior packaging using these materials, and where the product does not support any of the load. An example is a plastic bottled product in a corrugated box with a corrugated interior packing.	7.0, see Note 4	5.3, see Note 4
(b) A corrugated fiberboard or plastic container that has stress-bearing interior packaging with rigid inserts such as wood. An example is an appliance packed in a corrugated box with wood-reinforced corner posts.	4.5	3.4
(c) A container constructed of materials other than fiberboard or plastic that are not temperature or humidity sensitive or where the product supports the load directly. An example is a wood crate or box.	3.0	2.3

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NOTE 4—When testing fiberboard containers that have been conditioned to 40°F (4°C) and 85% RH or 100°F (38°C) and 85% RH, **the Design Factor should be reduced by 50%.**

(2) **Vibration Testing:** Using the same shipping unit, conduct vibration testing on all three faces, except as noted below. Face 3 must be tested for one hour and Faces 4 and 6 must be tested for 30 minutes each, for a total duration of two hours, using any of the three following vibration methods, see Note 5:

- (a) Random Vibration, ASTM D4169 Schedule E Level II;
- (b) Repetitive Shock, ASTM D4169 Schedule F (vertical-linear motion); or
- (c) Repetitive Shock, ASTM D4169 Schedule F (rotary motion).

If the shipping unit has a lift truck skid or pallet outside base, or is marked with upright arrow symbols, only Face 3 should be vibrated under the compressive load for two hours.

NOTE 5—For high or unstable shipping units, random or vertical-linear tests may be preferred.

Section III. Impact/Handling Test

Following compression/vibration tests, the same shipping units must be impact/handling tested using the following procedures:

Procedure (A)

For packages having no external attached or integral pallet or skid and not in a palletized load, perform an impact/handling test as follows, see Notes 6 and 7:

- (1) Under 200 lbs (91 kg) gross weight—perform a free-fall drop test in accordance with ASTM D5276, using the following height and sequence:

Table 7: Procedure (A) Drop Heights

For Shipping Weight, lbs (kg)	Drop Height, in (m)
Up to and including 40 (18)	24 (0.61)
41 (19) up to and including 80 (36)	18 (0.46)
81 (37) up to and including 100 (45)	12 (0.30)
101 (46) up to and including 199 (90)	10 (0.25)

- (a) Top;
- (b) A side (using the side most prone to damage, if known);
- (c) An adjacent side (using the adjacent side most prone to damage, if known);
- (d) A bottom corner (using bottom corner most prone to damage, if known);
- (e) A bottom edge radiating from the diagonally opposite bottom corner (using the edge most prone to damage, if known).
- (f) *The final drop must be on the bottom from a drop height at 1.5 times the specified height*, where the bottom is defined as the surface upon which the package is most likely to rest during shipment (upright arrows also define the bottom for transport).

NOTE 6—If a package with a long dimension begins to fall over after dropping on a corner or edge, do not catch or restrain the package. Let it fall over. However, if any package dimension is more than twice the drop height in its drop orientations, once dropped, the package may be prevented from tipping over.

NOTE 7—The package should be designed to withstand drops from the specified height from any drop orientation.

(2) For 200 lbs (91 kg) gross weight and over—perform an incline impact or a pendulum impact test according to ASTM D880, or a horizontal impact on a test machine with short duration shock programmer (ASTM D4003), as follows:

- (a) Impact the top, two adjacent sides and bottom at a final minimum velocity of 5.75 ft/sec (1.75 m/sec); **OR**
- (b) Alternately, the impact test may be provided by free-fall from a drop height of 6.0 in (0.15 m) on the top, two adjacent sides and bottom.
- (c) Also conduct a rotational corner drop test (ASTM D6179) from a 6.0 in (0.15 m) height on a bottom corner and a rotational edge drop test on a bottom edge radiating from the diagonally opposite bottom corner.

Procedure (B)

For individual packages with external attached or integral pallets/skids, including crates, perform impact and handling tests as follows:

- (1) Based on the gross weight of the total load, perform a Rotational Flat Drop Test according to ASTM D6179 as follows:

Table 8: Procedure (B) Drop Heights

Weight, lbs (kg)	Drop Height, in (m)
Up to 500 (227)	12 (0.30)
500 (227) and over	9 (0.23)

(a) With one bottom handling edge of the shipping unit supported by the floor, raise the other end to prescribed height and release it to fall flat on the floor. Repeat the test by lifting and dropping opposite bottom edge of shipping unit from same height.

(b) When using the specified drop heights would result in an unstable (unsafe) condition, the greatest drop height consistent with safety should be used. The drop height should be carefully measured and recorded.

(2) **Impact Test**—Perform an incline impact test or a pendulum impact test according to ASTM D880, or a horizontal impact on a test machine with short duration shock programmer (ASTM D4003), impacting each of the four sides at the final minimum velocity of 4.0 ft/sec (1.2 m/sec).

Procedure (C)

For palletized loads made up of a multiple number of containers or unitized loads of a bulk configuration, perform both impact tests in Procedure (B). In addition:

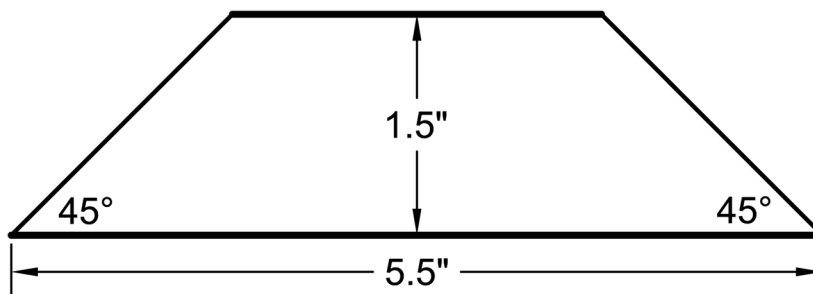
- (1) Conduct a fork truck handling test according to ASTM D6055:

Pick up shipping unit with lift truck having 36 in (0.9 m) forks (for longer forks, penetrate pallet only 36 in (0.9 m)); transport around test course, and set down. Repeat the moves four more times for a total of five moves. The test course should include at least one right angle turn on a rigid flat surface representative of carrier terminals and warehouses. A modified 2 in x 6 in board with long edge beveled full height at 45 degrees (see diagram below) shall be placed on the course in a position where both lift truck wheels on one side must pass over it during each handling sequence, and a second modified 2 in x 6 in board shall be placed on the course after the right angle turn in such a position that both lift truck wheels on the opposite side must pass over it during each handling sequence. The speed of the truck passing over the 2 in x 6 in boards and rounding the right angle turn shall be at least 2 mph (3.2 km/hr). Vertical alignment of palletized containers must be reasonably maintained throughout the test.

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OR

(2) Conduct a repetitive shock test (Rotary Motion) in accordance with ASTM D999, Method 2A:

Unitized pallet load of individual cases on a pallet must be subject to 10 minutes each in the "X" and "Y" directions. Place the load on the repetitive (Rotary) vibration machine. Operate equipment at 30° out of phase between 165 and 200 rpm (180 rpm recommended) for duration of 10 minutes. Rotate 90° after 10 minutes and continue for the remainder of 10 minutes. Inspect for load containment and damage during and following testing.

Section IV. Concentrated Impacts

To accommodate the use of this rule for packages where wrapping materials such as stretch wrap, shrink wrap, or paper are used in lieu of rigid outside containers, in addition to meeting the applicable performance requirements of Sections II and III, wrapped packages must be tested in accordance with ASTM D6344 Standard Test Method for Concentrated Impacts to Transport Packages. All faces of the package must be tested where wrapping is the only material covering a portion of the face, unless that face is the bottom of a package with an integral handling platform. Vertical distance of the test shall be 8 in (0.2 m), on impact energy of 1.0 foot-pounds (1.4 J).

Section V. Documentation

Test methods, conditions, and results must be recorded on the following form and permanently held on file for the duration the article is subject to this rule. The name shown above the certification symbol (Section VII) shall be the contact for such documentation. Changes in product construction and/or material or packaging require subsequent testing and documentation. At a minimum, the report should include the following:

- (1) Shipper requesting tests (including contact name, address, phone number and email);
- (2) Description of article, including model number, size, weight and other distinguishing features;
- (3) Description of shipping unit, including specifications of container and interior packaging;
- (4) Testing performed;
- (5) Conditioning and test conditions;
- (6) Acceptance criteria;
- (7) Condition of specimens (article and packaging) after testing; and
- (8) Laboratory performing tests (including contact name, address, phone number and email)

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National Motor Freight Classification – Item 180
Package Performance Laboratory Test Report

FCDC-Registered Testing Laboratory

Date:
Lab:
Address:
City, State Zip:
Country:

Reference No.:
Lab Technician:
Email:
Phone Number:
Signature:

Product / Package Information and Warehouse / Distribution Environment

I. Product Information (including product name and model number)

II. Package Information

- a. External container dimensions:
- b. Gross weight of packaged product:
- c. Sample size:
- d. Description of packaging and/or palletizing (including interior packing forms):

III. Warehouse / Distribution Environment

- | | | |
|-----------------------|-----|----|
| a. Clamp Lifts: | Yes | No |
| b. Basiloid Lifts: | Yes | No |
| c. Hanging Conveyors: | Yes | No |

Test Conditions and Procedure

IV. Description of Conditioning and Test Conditions

- a. Average temperature:
- b. Average relative humidity:
- c. Length of time under conditions:

V. Testing Performed (detailed description of test equipment used and test method followed)

- a. Compression / Vibration Testing
 - i. Method (A)

- ii. Method (B)

- b. Impact / Handling Testing
 - i. Procedure (A)

- ii. Procedure (B)

- iii. Procedure (C)

- c. Concentrated Impact Testing

VI. Acceptance Criteria (full description of the test pass / fail criteria)

VII. Results of Test (condition of specimen after testing)

VIII. Attach photos of test specimen before and after testing.

Shipper / Manufacturer

Company Name:
Address:
City, State Zip:
Country:

Contact Name:
Email:
Phone Number:
Registration Number:

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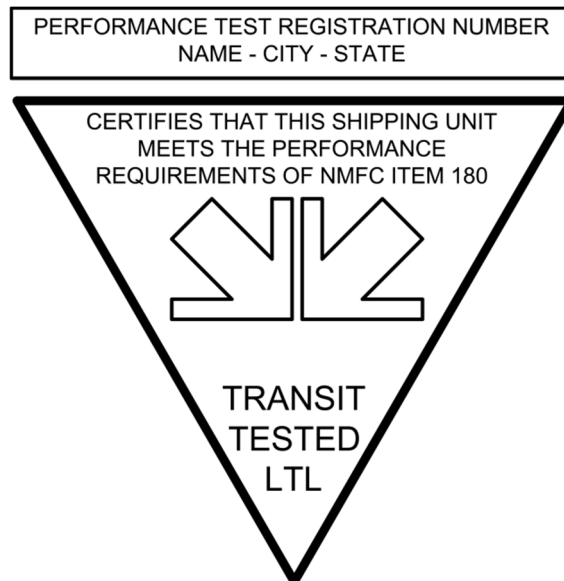
Section VI. Acceptance Criteria

- (1) The shipping unit shall be deemed acceptable after performance testing if the following criteria are met:
 - (a) The article is neither damaged nor nonfunctional.
 - (b) The shipping unit has maintained its integrity and still affords reasonable protection against the normal rigors of transportation.
- (2) The acceptance criteria of article damage and nonfunctionality must be predetermined before testing and included in the report.

Section VII. Certification

(1) Packages tested in accordance with this rule and certified as such by the Freight Classification Development Council's (FCDC's) Packaging Consultant must conspicuously bear the following triangular symbol that is 3 in wide at the top and 3.75 in high, showing that they meet the minimum performance requirements specified. This marking is the responsibility of the shipper or testing laboratory as identified above the symbol by name, city and state. Testing must be conducted by a testing laboratory that is registered with the FCDC, see Note 9.

(2) Directly above each certification symbol there must be printed a FCDC Performance Test Registration Number. Such number will be issued on an annual basis by the FCDC upon receipt of a properly completed form requesting such a Registration Number, signed by the FCDC's Packaging Consultant or other FCDC member and certifying that the symbol and Registration Number will be imprinted only on those packages which have met the minimum performance test requirements specified. Further, the applicant must divulge on the form the location or locations where completed test report forms are available for inspection upon reasonable request.



(a) In the event of a damage claim, carriers may request a retest at a different FCDC-registered laboratory (see Note 9). The retest must be conducted according to the same test plan as was used for the certification testing; no alternative procedures or types of test equipment may be substituted. Should the shipping unit fail the retest, a second retest of two shipping units may be conducted at the second laboratory and both shipping units must pass the retest.

(b) All shipping unit configurations and article sizes and variations must be tested and new reports filed for the purpose of certification by this rule (see Note 8). Any time a packaging or product change is made, the required performance tests must be repeated.

(c) When minor variations are made in articles, a single test sequence may be performed for certification, provided the variations have no effect on the degree of protective packaging required. Examples of minor variations may be color differences, electrical voltage/wiring, or left hand/right hand.

NOTE 8—When the shipping unit certified is a palletized load or a unitized load, the packaged products in the load are not certified as individual shipping units unless they are also successfully tested as individual packages and are so certified. Such palletized or unitized loads must show the triangular certification symbol on an upper position of not less than one sidewall.

NOTE 9—To qualify as a third party laboratory, the facility must register on an annual basis with the FCDC. A list of registered third party laboratories is provided in Item 183. For the most up-to-date list of registered labs, please refer to the FCDC's website, www.nmfta.org. Shippers with in-house laboratories that test their own products must also register on an annual basis with the FCDC.

RULES

ITEM 181-A

FURNITURE PACKAGE PERFORMANCE TESTING

► This rule provides an alternative to Item 180, packaging provisions as found within the Furniture Group (item 79000) and the Furniture Parts Group (item 82750), and the Numbered Packages, including the "F" and "S" Packages. It is recommended for solving chronic damage problems and for providing an acceptable assurance level of packaging for articles of furniture. This test procedure is to represent normal handling and distribution of boxed furniture or furniture parts. This rule does not purport to address all of the safety issues, if any, associated with its use. It is the responsibility of the user of this rule to establish appropriate safety and health practices.

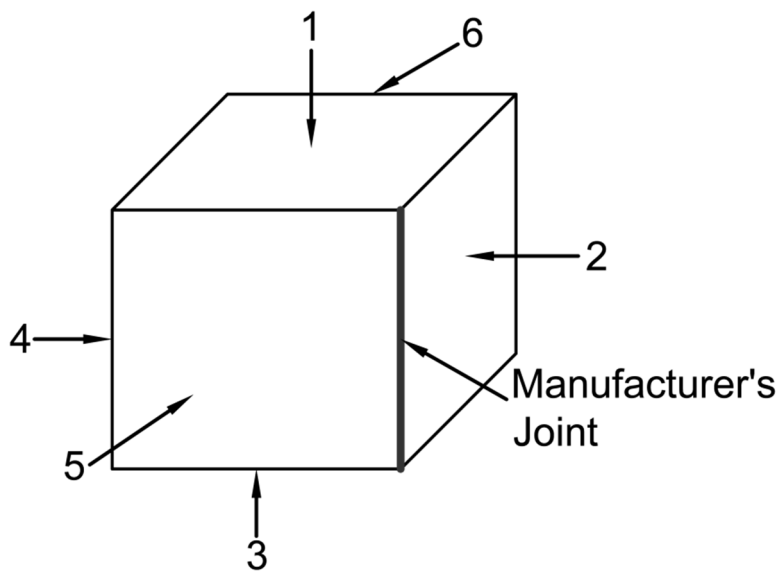
This test procedure does not apply to packages utilizing stretch or shrink plastic film wrap-style shipping units. This procedure applies only to furniture that is fully contained within corrugated fiberboard shipping containers. Exceptions include corrugated fiberboard flanged, open-bottom containers only when the container is appropriately marked with UP arrows. Furniture tendered in a corrugated fiberboard container secured on a lift truck skid or pallet, or with a lift truck skid or pallet base, should be tested under Item 180.

In order to qualify as authorized methods of packaging under this rule, shipping containers must be preshipment tested and successfully pass the following prescribed performance test requirements and must meet the acceptance criteria as indicated.

Shippers will be required to perform the following specified minimum tests to be considered as an approved package and be eligible to certify shipping containers as specified within Section VI herein. Multiple test specimens are recommended when available, and all specimens tested must pass.

For the purpose of retest uniformity, handling steps utilized in transporting the article (once fully packaged) from the production line to the warehouse to the testing laboratory, i.e., clamp trucks, baseloid lift trucks, hanging conveyors, must be identified and documented on test report form so that these procedures may be repeatable.

Orientation and Nomenclature for Test Specimens: Place the container in its normal shipping orientation with the front facing forward and then proceed with marking the faces according to the diagram shown below. Note the Manufacturer's Joint, when present, may or may not be located in the same position as shown in the diagram.



PERFORMANCE TEST REQUIREMENTS: All applicable shipping units must be tested as follows:

Section I. Conditioning

Except as provided in Note 1, all specimens must be conditioned in an atmosphere of 73°F (23°C) minimum and 50% RH minimum for at least 24 hours. Testing should be conducted in the same minimum atmosphere, and conditions must be recorded for each test conducted. If testing cannot be conducted in the minimum atmosphere, conduct the tests as soon as possible after the packaged products have been stored for 24 hours in the testing environment.

NOTE 1—Alternatively, fiberboard packaging may be conditioned in an atmosphere of 40°F (4°C) and 85% RH or 100°F (38°C) and 85% RH for at least 72 hours.

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Section II. Compression/Vibration Test

Two alternate methods of testing are permissible: Method (A)—Stacked Compressive Load/Vibration Testing, or Method (B)—Separate Compressive Load/Vibration Testing. Either may be utilized, depending on test capability or product characteristics. Unless the shipping container is marked with upright arrow symbols, the container must be tested on Faces 3, 4 and 6. If the shipping unit is marked with upright arrow symbols, the compressive load or force requirements in Methods (A) and (B) for Faces 4 and 6 may be omitted.

Method (A)—Stacked Compressive Load/Vibration Testing

Shipping units must be vibration tested under a stacked compressive load using either an identical shipping unit, or a concentrated dead weight load as described below.

(1) **Calculating Concentrated Dead Weight Loads:** When conducting concentrated dead weight load vibration tests, the size of the package changes with the three shipping orientations of the package, and the concentrated dead load weights on the top of the package will change accordingly. Use a concentrated dead load (see Description of Load Apparatus in Paragraph (2)(a) below) to simulate miscellaneous freight loaded on top of a floor-stowed shipping unit in a trailer. Determine the required loads, rounded up to the nearest 5 pounds (lbs), from the formulas in Table 1 or 2. See Notes 2 and 3.

Table 1: Method (A) Load Calculation

Orientation — Face 3 Down:

$$\text{LOAD} = \frac{10 \times (108 - h) \times (l \times w)}{1728}$$

Orientation — Face 4 Down:

$$\text{LOAD} = \frac{10 \times (108 - w) \times (l \times h)}{1728}$$

Orientation — Face 6 Down:

$$\text{LOAD} = \frac{10 \times (108 - l) \times (w \times h)}{1728}$$

Where:	LOAD =	pounds (lbs)
	10 =	average density of LTL freight (pcf)
	108 =	inside height of trailer (in)
	1728 =	conversion factor (in ³ /ft ³)
	h =	height of shipping unit (in)
	l =	length of shipping unit (in)
	w =	width of shipping unit (in)

Table 2: Method (A) Load Calculation (Metric)

Orientation — Face 3 Down:

$$\text{LOAD} = 162 \times (2.7 - h) \times (l \times w) \times 9.8$$

Orientation — Face 4 Down:

$$\text{LOAD} = 162 \times (2.7 - w) \times (l \times h) \times 9.8$$

Orientation — Face 6 Down:

$$\text{LOAD} = 162 \times (2.7 - l) \times (w \times h) \times 9.8$$

Where:	LOAD =	kilograms (kg)
	162 =	average density of LTL freight (kg/m ³)
	2.7 =	inside height of trailer (m)
	h =	height of shipping unit (m)
	l =	length of shipping unit (m)
	w =	width of shipping unit (m)
	9.8 =	metric conversion factor (m/s ²)

NOTE 2—To avoid any gross distortion of calculated loads, a maximum dead load of 750 lbs (340 kg) should be utilized when the calculated dead load exceeds this limitation.

NOTE 3—For step or form-fitting containers, the load may be applied proportionately, dividing the total load by the surface area of the panels formed by stepping.

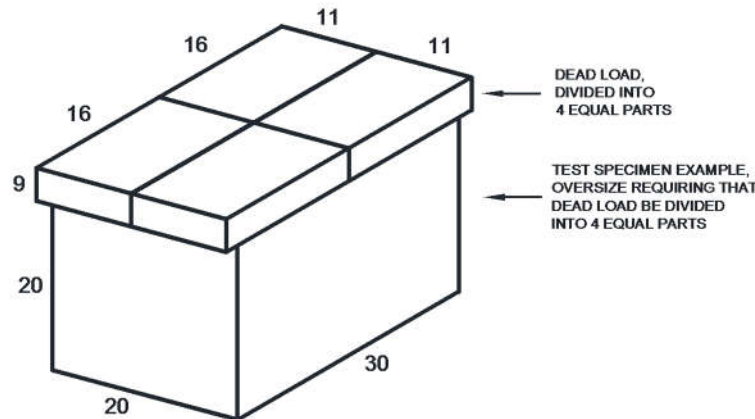
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RULES

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(2)(a) **Description of Load Apparatus:** The concentrated dead load shall consist of the following: corrugated trays or HSC-style container(s) of doublewall construction having a corrugated medium maximum basis weight of 33 lbs (15 kg); a plywood sheet with a minimum thickness of 0.5 in (13 mm) resting inside the container on the complete area of the bottom inner flaps of the container; and a block of lead or sand contained in plastic bag(s) evenly distributed over the bottom surface of the container to complete the required calculated load (sand weighs approximately 110 pcf (50 kg/m³)). The dead load container(s) must be larger than the test specimen, but must not overhang the specimen by more than 1.5 in (38 mm). The dead load container(s) must be affixed so that it cannot move inside the perimeter of the test specimen during testing. The test specimen should not be fastened to the vibration table and should be allowed some lateral movement, yet restricted so that it does not move from under the perimeter of the dead load.

(2)(b) When test units have large top surfaces, i.e., any dimension exceeding 18 in (0.46 m), the dead load must be subdivided into smaller portions. If only one dimension exceeds 18 in (0.46 m), the load must be divided into two equal portions along the longer dimension. If both dimensions exceed 18 in (0.46 m), the load must be divided into four equal portions, as shown in the diagram below.



EXAMPLE OF CONCENTRATED DEAD LOAD ON TEST SPECIMEN FOR RANDOM VIBRATION TEST

TEST SPECIMEN SHOWN IN EXAMPLE MEASURES 30" X 20" X 20", LARGER THAN 18" IN BOTH LENGTH AND WIDTH, REQUIRING THAT THE DEAD LOAD BE DIVIDED INTO 4 EQUAL PARTS.

(3) **Vibration Testing:** Properly position either the identical shipping unit or the concentrated dead weight load on the shipping unit. Using procedure ASTM D4169 Schedule D, Truck Profile, Assurance Level II, for random vibration load, or procedure ASTM D4169 Schedule F for vertical-linear vibration under a stacked compressive load, test the shipping unit. Conduct the vibration testing on all three faces, except as noted below. Face 3 must be tested for one hour and Faces 4 and 6 must be tested for 30 minutes each, for a total duration of two hours. If the shipping unit is marked with upright arrow symbols, only Face 3 must be vibrated under the compressive load for two hours.

Method (B)—Separate Compressive Load/Vibration Testing

Shipping units must be subjected to compression and vibration in separate tests. The compression test is conducted first and then the same shipping unit is vibration tested.

(1) **Compression Testing:** Except as noted below, compression testing is required to be conducted on Faces 3, 4 and 6 of the same shipping unit, using either a machine compression test (per ASTM D642) or a constant load (dead weight) test (per ASTM D4577), see Table 3. When conducting compression tests, the size of the package changes with the three shipping orientations of the package, so the required concentrated forces or dead loads on the top of the package will change accordingly. Using the formulas below in Table 4 or 5, calculate the required force or load, depending upon which compression method is used, for each of the three faces, rounded up to the nearest 5 pounds force (lbf) or pounds (lbs), respectively. Apply the required compressive force or load on the shipping unit depending upon selected method found in Table 3. If the shipping container is marked with upright arrow symbols, only Face 3 should be compressed.

Table 3: Compression Method

Compression Type	Length of Compression Time	Compression Value Designation	Design Factor (DF)
Machine Compression Test per ASTM D642	Remove immediately once required force is reached	FORCE	7
Constant Load (Dead Weight) Test per ASTM D4577	1 hour/face	LOAD	5

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ITEM 181-A-Continued

Table 4: Method (B) Force or Load Calculation

Orientation — Face 3 Down:

$$\text{FORCE or LOAD} = \frac{10 \times (108 - h) \times (l \times w) \times \text{DF}}{1728}$$

Orientation — Face 4 Down:

$$\text{FORCE or LOAD} = \frac{10 \times (108 - w) \times (l \times h) \times \text{DF}}{1728}$$

Orientation — Face 6 Down:

$$\text{FORCE or LOAD} = \frac{10 \times (108 - l) \times (w \times h) \times \text{DF}}{1728}$$

Where:	FORCE =	pounds force (lbf)
	or	or
	LOAD =	pounds (lbs)
	10 =	average density of LTL freight (pcf)
	108 =	inside height of trailer (in)
	1728 =	conversion factor (in ³ /ft ³)
	h =	height of shipping unit (in)
	l =	length of shipping unit (in)
	w =	width of shipping unit (in)
	DF =	Design Factor from Table 3

Table 5: Method (B) Force or Load Calculation (Metric)

Orientation — Face 3 Down:

$$\text{FORCE or LOAD} = 162 \times (2.7 - h) \times (l \times w) \times \text{DF} \times 9.8$$

Orientation — Face 4 Down:

$$\text{FORCE or LOAD} = 162 \times (2.7 - w) \times (l \times h) \times \text{DF} \times 9.8$$

Orientation — Face 6 Down:

$$\text{FORCE or LOAD} = 162 \times (2.7 - l) \times (w \times h) \times \text{DF} \times 9.8$$

Where:	FORCE =	Newtons of force (Nf)
	or	or
	LOAD =	Newtons (N)
	162 =	average density of LTL freight (kg/m ³)
	2.7 =	inside height of trailer (m)
	h =	height of shipping unit (m)
	l =	length of shipping unit (m)
	w =	width of shipping unit (m)
	DF =	Design Factor from Table 3
	9.8 =	metric conversion factor (m/s ²)

NOTE 4—To avoid any gross distortion of calculated loads, a maximum dead load of 750 lbs (340 kg) should be utilized when the calculated dead load exceeds this limitation.

NOTE 5—For step or form-fitting containers, the load may be applied proportionately, dividing the total load by the surface area of the panels formed by stepping.

(2) **Vibration Testing:** Using the same shipping unit, conduct vibration testing on all three faces, except as noted below. Face 3 must be tested for one hour and Faces 4 and 6 must be tested for 30 minutes each, for a total duration of two hours, using any of the three following vibration methods:

- (a) Random Vibration, ASTM D4169 Schedule E, Truck Profile, Assurance Level II;
- (b) Repetitive Shock, ASTM D4169 Schedule F (vertical-linear motion); or
- (c) Repetitive Shock, ASTM D4169 Schedule F (rotary motion).

If the shipping unit is marked with upright arrow symbols, only Face 3 should be vibrated for two hours.

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ITEM 181-A-Continued

Section III. Impact/Handling Tests

Following compression/vibration tests, the same shipping units must be impact/handling tested using one of the following procedures:

Procedure (A)

Under 150 lbs AND under 130 united inches, from the formula of $(2 \times l) + (2 \times w) + h$, perform a free-fall drop test on six faces, three edges, and one corner using the heights in Table 6 and sequence in Table 7:

Table 6: Procedure (A) Drop Heights

Shipping Weight, lbs (kg)	Drop Height, in (cm)
0 – 25 (0 – 11)	30 (76)
Over 25 – 40 (Over 11 – 18)	24 (61)
Over 40 – 80 (Over 18 – 36)	18 (46)
Over 80 – 100 (Over 36 – 45)	12 (31)
Over 100 – 150 (Over 45 – 68)	10 (25)

Table 7: Procedure (A) Drop Sequence

Sequence #	Orientation	Specific face, edge or corner
1	Corner	Most fragile face-3 corner, if not known, test 2-3-5
2	Edge	Shortest edge radiating from the corner tested
3	Edge	Next shortest edge radiating from the corner tested
4	Edge	Longest edge radiating from the corner tested
5	Face	One of the smallest faces
6	Face	Opposite small face
7	Face	One of the medium faces
8	Face	Opposite medium face
9	Face	One of the largest faces
10	Face	Opposite large face

Procedure (B)

Perform tests as described in sections (1) AND (2) below:

(1) For 150 lbs or greater AND/OR 130 united inches or greater from the formula of $(2 \times l) + (2 \times w) + h$:

(a) Perform an incline impact test according to ASTM D880, or a horizontal impact on a test machine with short duration shock programmer (ASTM D4003). Impact velocity of 5.75 ft/sec (1.75 m/sec), using the sequence in Table 8.

Table 8: Procedure (B) Impact Sequence

Sequence	Location of Impact
1	One of the smallest faces
2	Opposite small face
3	One of the medium faces
4	Opposite medium face
5	One of the largest faces
6	Opposite large face

OR

(b) Perform a free-fall drop height of 6 in (0.15 m) on the top (face 1), two adjacent sides (faces 2 and 5), and the bottom (face 3) of shipping container for a total of four drops.

(2) In addition, when the shipping container length dimension is greater than the height dimension, conduct an 8 in (0.20 m) rotational edge drop in accordance with ASTM D6179-9.1 on the following four edges formed by faces: 4 and 5, 2 and 5, 4 and 6, and finally 2 and 6 for a total of four drops. If the shipping container height dimension is greater than the length dimension, perform test on the following four edges formed by faces: 3 and 6, 3 and 5, 1 and 5, and finally 1 and 6.

Section IV. Documentation

Test methods, conditions, and results must be recorded on the following form and permanently held on file for the duration the article is subject to this rule. The name shown in the certification symbol, displayed in Section VI of this rule, shall be the contact for such documentation. Changes in product construction and/or material or packaging require subsequent testing and documentation. At a minimum, the report should include the following:

- (1) Shipper requesting tests (including contact name, address, phone number and email);
- (2) Description of article, including model number, size, weight and other distinguishing features;
- (3) Description of shipping unit, including specifications of container and interior packaging;
- (4) Testing performed;
- (5) Conditioning and test conditions;
- (6) Acceptance criteria;
- (7) Condition of specimens (article and packaging) after testing; and
- (8) Laboratory performing tests (including contact name, address, phone number and email)

(Continued on following page)

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ITEM 181-A-Continued

National Motor Freight Classification – Item 181
Furniture Package Performance Laboratory Test Report

FCDC-Registered Testing Laboratory

Date:

Lab:

Address:

City, State Zip:

Country:

Reference No.:

Lab Technician:

Email:

Phone Number:

Signature:

Product / Package Information and Warehouse / Distribution Environment

I. Product Information (including product name and model number)

II. Package Information

- a. External container dimensions:
- b. Gross weight of packaged product:
- c. Sample size:
- d. Description of packaging and/or palletizing (including interior packing forms):

III. Warehouse / Distribution Environment

- | | | |
|-----------------------|-----|----|
| a. Clamp Lifts: | Yes | No |
| b. Basiloid Lifts: | Yes | No |
| c. Hanging Conveyors: | Yes | No |

Test Conditions and Procedure

IV. Description of Conditioning and Test Conditions

- a. Average temperature:
- b. Average relative humidity:
- c. Length of time under conditions:

V. Testing Performed (detailed description of test equipment used and test method followed)

- a. Compression / Vibration Testing
 - i. Method (A)

- ii. Method (B)

- b. Impact / Handling Testing
 - i. Procedure (A)

- ii. Procedure (B)

VI. Acceptance Criteria (full description of the test pass / fail criteria)

VII. Results of Test (condition of specimen after testing)

VIII. Attach photos of test specimen before and after testing.

Shipper / Manufacturer

Company Name:

Address:

City, State Zip:

Country:

Contact Name:

Email:

Phone Number:

Registration Number:

RULES

ITEM 181-A-Continued

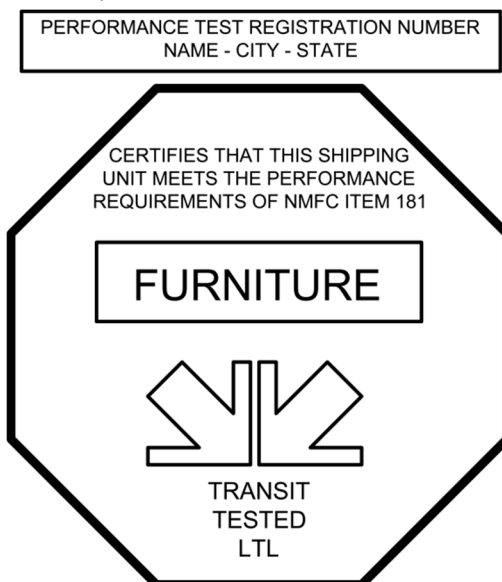
Section V. Acceptance Criteria

- (1) The shipping unit shall be deemed acceptable after performance testing if the following criteria are met:
- (a) The article is neither damaged nor nonfunctional.
 - (b) The shipping unit has maintained its integrity and still affords reasonable protection against the normal rigors of transportation.
- (2) The acceptance criteria of article damage and nonfunctionality must be predetermined before testing and included in the report.

Section VI. Certification

(1) Packages tested in accordance with this rule and certified as such by the Freight Classification Development Council's (FCDC's) Packaging Consultant must conspicuously bear the following octagonal symbol that is 3 in by 3 in showing that they meet the minimum performance requirements specified, see Note 6. This marking is the responsibility of the shipper or FCDC-registered testing laboratory, identified within the symbol by name, city and state. Testing must be conducted by the shipper on their own products or by any FCDC-registered testing laboratory, see Note 7.

(2) Directly above each certification symbol there must be printed a FCDC Performance Test Registration Number. Such number will be issued on an annual basis by the FCDC upon receipt of a properly completed form requesting such a Registration Number, signed by the FCDC's Packaging Consultant or other FCDC member and certifying that the symbol and Registration Number will be imprinted only on those packages which have met the minimum performance test requirements specified. Further, the applicant must divulge on the form the location or locations where completed test report forms are available for inspection upon reasonable request.



NOTE 6—The use of the above certification symbol does not negate container marking required in Note, item 79022, paragraph (c).

(3) In the event of repeated damages, carriers may request a retest at a FCDC-registered laboratory. The retest must be conducted according to the same test plan as used for the initial certification testing. No alternative procedures or types of test equipment may be substituted. Should the shipping unit fail the retest, a second retest of two shipping units may be conducted at a FCDC-registered laboratory and both shipping units must pass the retest.

NOTE 7—To qualify as a third party laboratory, the facility must register on an annual basis with the FCDC. A list of registered third party laboratories is provided in Item 183. For the most up-to-date list of registered labs, please refer to the FCDC's website, www.nmfta.org. Shippers with in-house laboratories that test their own products must also register on an annual basis with the FCDC.

RULES

ITEM 183-C

FCDC-REGISTERED THIRD PARTY PACKAGE TESTING LABORATORIES

The package testing laboratories named below are registered with the Freight Classification Development Council and are qualified to conduct the performance test procedures detailed in Items 180 and 181. For the most up-to-date list of registered labs, please refer to the FCDC's website, www.nmfta.org/pages/FCDCRegistered.

Laboratory	Location	Contact	Phone Number
Advanced Packaging Technology Laboratories, Inc.	Wheeling, IL	Monica White	847.520.4343
ANAMA Package & Container Testing Services, Inc.	Stamford, CT	Anton Cotaj	203.658.8490
Bureau Veritas Consumer Products Services Vietnam	Ho Chi Minh City, Vietnam	Ryan Nguyen	84.966.357953
Bureau Veritas Shenzhen Company Ltd.	Nanshan District, Shenzhen, China	Larry Ching	86.755.86185200
China Packaging Research & Test Center	Tianjin, China	Wang Qing	86.22.66237185
FedEx Services Packaging Lab	Collierville, TN	Evan Edwards	901.850.3597
gh Package & Product Testing and Consulting, Inc.	Fairfield, OH	Tim Glasmeier	513.870.0080
Intertek Testing Service Shenzhen Limited, Guangzhou Branch	Guangzhou, Guangdong, China	Bo Wang	86.20.82139764
Intertek Testing Services Shenzhen Ltd.	Shenzhen, Guangdong, China	Michael Zhang	86.755.2602.0286
★Multi-Wall Packaging Corp.	Danville, VA	Rob Reynolds	434.836.7802
Outlook Technical Services Vietnam Ltd.	Vietnam	Christine Nguyen	84.774.356.503
Packaging Corporation of America	Mundelein, IL	Brandon Hink	847.388.6034
Performance Testing Laboratories, LLC	Santa Ana, CA	Mary Beth Proctor	714.957.9300
Pro-Pack Testing Laboratory, Inc.	Belleville, IL	Manuel Rosa, Jr.	618.277.1160
SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch	Guangdong Province, China	Heather Meng	86.757.2280.5851
UPS Customer Solutions - Package Design and Test Lab	Addison, IL	Jason Twu	630.628.3703
WestRock	Carol Stream, IL	Jim Rivera	630.384.5237

►ITEM 292-A

SPECIFICATIONS FOR FIBER PAILS FOR DRY,
SOLID OR SEMI-SOLID COMMODITIES

(a) **Greaseproof-waterproof fiber pails for dry, solid or semi-solid articles** must conform with the requirements of Item 291, except that the interior of the pail must be lined or so treated as to prevent penetration by the material with which the pail is filled for shipping.

(b) Sidewall must be constructed of more than one ply not spirally wound, no single ply to be less than 0.012 inch in thickness, with outer ply waterproofed and all plies firmly glued together;

OR

Sidewalls may be constructed of fiberboard of single ply meeting the test requirements in paragraph (a) of Item 291, with outer face waterproofed and the ends of fiberboard forming joint or overlap must extend at least two inches beyond beginning of the overlap and must be firmly glued together throughout entire area of overlap and such overlap must be reinforced by metal rivets, staples or stitches not more than six inches apart, or must be fastened by a double row of metal rivets, staples or stitches not more than two inches apart in each row, or secured by a barbed steel strip not less than 22 gauge and not less than one inch wide extending entire length of joint with barbs pressed through fiberboard and clinched on inside.

(c) Tops and bottoms must be so fastened to sidewalls as to provide a tight seal and withstand ordinary handling and shipping without showing signs of sifting or loss of any contents. When tops and bottoms are made of fiberboard having wooden segments reinforcing circumference not less than $\frac{1}{2}$ inch thick, and not less than $1\frac{1}{4}$ inches wide at joint between segments, fiberboard may be not less than same test as shell.

(d) Drums described in Items 294 and 296 also may be used for transporting semi-solid articles.

RULES

ITEM 680-B

PACKING OR PACKAGING—GENERAL

General

Sec. 1. (a) The separate descriptions of articles provide the minimum, acceptable packaging requirements, see Note 1. Numbered packages or other packaging provisions (other than 'DOT Specification Number' packages, for which, see DOT's hazardous materials regulations) are authorized for use only when item descriptions contain reference thereto. The definitions of or specifications for packaging requirements are provided in: (1) Items 200 through 299, (2) numbered packages and (3) Note references. The minimum requirements notwithstanding, articles must be tendered for shipment in such a manner as to withstand the normal rigors of the less-than-truckload environment. Whether or not part of the specific requirements, protective packing forms or other packaging materials must be used where necessary to afford adequate protection against damage to the articles being shipped. Articles or articles and necessary interior packing forms must reasonably occupy the full cubic capacity of the outer shipping container, see Notes 2(a), 3 and 4. Articles unitized or secured on lift truck skids, pallets or platforms must reasonably occupy the full surface area of the lift truck skid, pallet or platform, see Note 2(b) and (c).

Note 1—The term 'packaging requirements' as used in this Classification or in tariffs governed thereby means the provisions which specify: (1) the kinds or specifications of the containers, packages or other manner in which the articles shall be packed or protected for shipment, and (2) how the articles shall be packed or protected by or within such containers, packages or other manner.

Note 2—

(a) Reasonable Occupancy of Shipping Container. Unless otherwise provided, commodities in shipping containers (not containers within containers) shall be deemed to be in compliance when filled to not less than 65 percent of the capacity of such containers. When filled to less than 65 percent of capacity, the gross weight of the container and its contents will be subject to the class applicable to either the container or its contents, whichever is higher.

(b) Reasonable Occupancy of Lift Truck Skid, Pallet or Platform Deck. Unless otherwise provided, and except as permitted in paragraph (c), commodities unitized or secured on lift truck skids, pallets or platforms shall be deemed to be in compliance when occupying not less than 65 percent of the full surface area (deck) of the lift truck skid, pallet or platform. The surface area occupied shall be determined by multiplying the greatest straight-line dimensions of length and width of the commodity(ies). Banding, strapping, wrapping or other materials used for securement to the lift truck skid, pallet or platform will not be considered in the determination of occupancy. When less than 65 percent of the surface area of the lift truck skid, pallet or platform is occupied, the gross weight of the lift truck skid, pallet or platform and the commodity(ies) unitized or secured thereon will be subject to the class applicable to either the lift truck skid, pallet or platform or the commodity(ies), whichever is higher.

Any part of the commodity(ies) shipped that may overhang the lift truck skid, pallet or platform will not be used in determining occupancy of the surface area, but will be used in the computation of density. (See Item 110, Sec. 8-8(d).)

(c) Maximum Allowable Dimensions of Lift Truck Skids, Pallets or Platforms for 'Potentially Unstable Commodities.' For the purpose of this rule, commodities having an overall height 1.5 times or more their shortest base dimension shall be considered potentially unstable. For such commodities, the lift truck skid, pallet or platform may be of sufficient size to provide adequate stability. The maximum allowable dimensions of the lift truck skid, pallet or platform are determined using the following formulas.

The **Maximum Allowable Length** is the larger result of the following calculations:

$$\text{Maximum Allowable Length (in)} = \text{Commodity's(ies') Height (in)} \times 0.67$$

OR

$$\text{Maximum Allowable Length (in)} = \text{Commodity's(ies') Length (in)} + 12 \text{ (in)}$$

The **Maximum Allowable Width** is the larger result of the following calculations:

$$\text{Maximum Allowable Width (in)} = \text{Commodity's(ies') Height (in)} \times 0.67$$

OR

$$\text{Maximum Allowable Width (in)} = \text{Commodity's(ies') Width (in)} + 12 \text{ (in)}$$

If the lift truck skid, pallet or platform exceeds the maximum allowable length or width, as calculated above, the gross weight of the handling unit will be subject to the class applicable to either the lift truck skid, pallet or platform or the commodity(ies) being shipped, whichever is higher.

Note 3—Unless otherwise provided, articles tendered on reels shall be deemed to be in compliance when the reel is filled to not less than 65 percent of capacity. When filled to less than 65 percent of capacity, the gross weight of the reel and its contents will be subject to the class applicable to either the reel or its contents, whichever is higher.

Note 4—Unless otherwise provided and unless subject to classes based on density, liquid, powdered or granular commodities or materials packaged in rigid or semirigid primary containers in an authorized outer shipping container must occupy at least 65 percent of the primary container's cubic capacity. When filled to less than 65 percent of the primary container's cubic capacity, the gross weight of the commodity as packaged for shipment will be subject to the class applicable to either the primary container or its contents, whichever is higher. Does not apply when primary inner containers are in intermediate inner containers and then placed in an outer shipping container.

Sec. 1. (b) Unless otherwise provided for in the separate descriptions of articles, where classes are provided for 'loose' or 'in bulk,' such classes will also apply on the same articles when in packages; or if no packing or form of acceptance is mentioned, the classes will also apply on the same articles when loose or in packages. See also Secs. 5(a) and (b).

Carrier's Option to Accept or Refuse

Sec. 2. Except as provided in Item 423, whether or not the authorized minimum packing requirements are observed, outer (shipping) containers or packages, inner containers, interior protection devices, method of packing within containers or packages, or other form of shipment authorized must be made of materials of such strength or be of such nature as to afford a reasonable and proper protection of lading and to protect against damage to other freight or equipment, and carriers may for good reason refuse to accept freight the transportation of which, in their judgment, would not be reasonably safe and practicable and so notify the shipper.

(Continued on following page)

RULES

ITEM 680-B-Continued

Liquids, or Commodities that will Expand, Liquefy or Vaporize

Sec. 3. Liquids, or commodities that will expand, liquefy or vaporize under any conditions during transportation must be secured in containers that will prevent leakage from such containers.

Recoopering

Sec. 4. Provided that the shipper is notified beforehand, the carrier shall have the right to perform necessary recoopering at owner's or shipper's expense except when necessitated by carrier's negligence.

Definitions of the Terms 'In Packages' and 'Loose'

Sec. 5. (a) When the term 'in packages' is provided in connection with the separate descriptions of articles, such articles will be accepted for transportation in any container or in any other form tendered to carrier which will permit handling into or out of vehicles as units, provided such containers or tendered forms will render the transportation of freight reasonably safe and practicable so that it will withstand the normal rigors of the less-than-truckload environment. The term 'in packages' includes articles securely fastened to lift truck skids, pallets or platforms, or unitized quantities, but does not include articles 'in bulk,' 'loose,' 'on skids' or articles racked or braced in vehicles.

Sec. 5. (b) The term 'loose' is defined as freight that is not packaged, not unitized, not on skids and not securely fastened to lift truck skids, pallets or platforms. When the term 'loose' is provided in connection with the separate descriptions of articles or where no packing or form of acceptance is specified, articles may be tendered loose for transportation only when the transportation of the articles is reasonably safe and practicable so that it will withstand the normal rigors of the less-than-truckload environment. Where necessary to afford adequate protection against damage, articles must be packaged or otherwise protected by packing forms or other packaging materials.

Outer Containers (Packages) versus Inner Containers (Packages)

Sec. 6. (a) Outer containers are the shipping packages specified in individual item descriptions. Unless otherwise provided, the classes shown in connection therewith apply whether or not the contents are in inner containers.

Sec. 6. (b) Inner containers are packages that contain or hold the article(s) being shipped and are packed within an outer container (shipping package).

Sec. 6. (c) Unless otherwise provided in individual item descriptions, classes shown for articles in glass inner containers will also apply on the same articles in earthenware or molded plastic inner containers.

Sec. 6. (d) Where in individual items classes are provided for articles in metal inner containers, such classes apply only on articles in inner containers constructed of metal and having rigid, self-supporting sides.

Articles Secured to Skids or to Lift Truck Skids, Pallets or Platforms, or Bundled Together

Sec. 7. (a) Articles in packages or shipping forms, as authorized in individual item descriptions, will be accepted when secured on skids meeting the requirements of Item 270. When articles are authorized to move 'on skids' within individual item descriptions, skids must meet the requirements of Item 270.

Sec. 7. (b)

(1) Except as required in Paragraph (2), articles in packages or shipping forms, as authorized in individual item descriptions, will be accepted when unitized or secured on lift truck skids, pallets or platforms meeting the requirements of Item 265. Unless otherwise provided, when in the specifications of numbered packages or in individual item descriptions articles are required to move on lift truck skids, pallets or platforms, such skids, pallets or platforms must meet the requirements of Item 265. Except where required by the applicable provisions, it is recommended that articles unitized or secured on lift truck skids, pallets or platforms not overhang the skid, pallet or platform deck.

(2) Articles in bags complying with the construction requirements for such containers, as authorized in individual item descriptions, will be accepted when unitized on lift truck skids, pallets or platforms meeting the requirements of Item 265, provided the bottom tiers of bags are placed within a fiberboard tray, with or without a separate fiberboard sleeve, on the lift truck skid, pallet or platform deck. Depth of the tray or tray and sleeve, as the case may be, must extend at least 20 inches from the lift truck skid, pallet or platform deck ►(see Note 5). Bags, tray and, where present, sleeve must not overhang the deck, and the entire handling unit must be secured together with plastic film and with strapping in opposing directions, at least two straps in each direction. Fiberboard protectors or a barrier sheet of fiberboard, heavy-duty Kraft paper or similar material must be used to prevent direct contact between straps and bags. See Note ►6.

►**Note 5**—When bags are stacked to a height of less than 20 inches, depth of the tray or tray and sleeve, as the case may be, must extend the full height of the bags.

Note ►6—These requirements do not apply on articles in flexible intermediate bulk containers (FIBCs), including bulk bags.

Sec. 7. (c) Articles in fiberboard boxes complying with the construction requirements for such containers, as authorized in individual item descriptions, will be accepted when unitized into bundles with stretch or heat-shrinkable plastic film, or the strapping materials named in Item 680, Sec. 9. Materials used to bundle containers must be of sufficient number and strength to maintain the integrity of the unit during transportation.

Packing—Mixed Shipments

Sec. 8. Unless otherwise provided in the separate description of articles, the package specifications, conditions and all other requirements governing articles in straight shipments apply on the same articles when in mixed shipments.

Strapping or Taping of Articles or Packages

Sec. 9. (a) Unless otherwise provided, where the use of rope, wire or metal bands or straps is specifically authorized or required, or where an article must be 'strapped,' metal, plastic or synthetic fiber strapping, or adhesive tape, may be used provided such strapping or tape is of sufficient strength so as to withstand the normal rigors of the less-than-truckload environment.

Sec. 9. (b) Unless otherwise provided, article(s) or package(s) may be secured to lift truck skids, pallets or platforms with metal, plastic or synthetic fiber strapping of sufficient strength so as to withstand the normal rigors of the less-than-truckload environment. Strapping must be placed in opposing directions, with at least two straps in each direction. Additional strapping is required on handling units exceeding 48 inches in length or width. Contact points that may be damaged by strapping must be protected by packing forms or other packaging materials.

(Continued on following page)

RULES

ITEM 680-B-Continued

Definition of 'Wrapped'

Sec. 10. (a) When in the separate description of articles the word 'wrapped' is referred to as a form of exterior packaging, such articles must be enclosed or enfolded within packaging material which completely covers the article. Such wrappers must be securely fastened. This method of packaging must render the transportation of freight reasonably safe and practicable so that it will withstand the normal rigors of the less-than-truckload environment.

Sec. 10. (b) Except as provided elsewhere in this Classification, when plastic film wrap is used, the film strength should afford sufficient protection to the freight. The plastic film must be wrapped so as to adequately secure the freight together and to the lift truck skid, pallet or platform, when present.

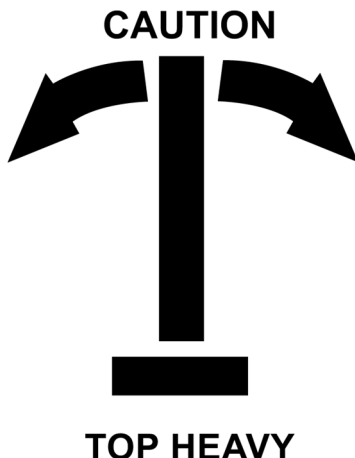
In order to test the sufficiency of plastic film wrap, performance tests may be conducted. To simulate fork truck handling, test according to ASTM D880, Test Method for Impact Testing for Shipping Containers and Systems; D4003, Methods of Programmable Horizontal Impact Test for Shipping Containers and Systems; D6055, Test Methods for Mechanical Handling of Unitized Loads and Large Shipping Cases and Crates; or D6179, Test Methods for Rough Handling of Unitized Loads and Large Shipping Cases and Crates. For guidance on the intensities and durations for these procedures, refer to Section 10.3.2 of Schedule A – Handling – Manual and Mechanical of ASTM D4169, Standard Practice for Performance Testing of Shipping Containers and Systems. To test for resistance to impact of the plastic wrap on shipping packages, use ASTM D6344, Standard Test Method for Concentrated Impacts to Transport Packages.

Substitution of Fiberboard Boxes for Packages, Bales, Bundles or Wrapped

Sec. 11. When in the separate description of articles the terms 'in packages,' 'in bales,' 'in bundles,' or 'wrapped' are referred to as a form of exterior packaging, such articles may be enclosed in corrugated fiberboard boxes. When the corrugated boxes used do not meet the requirements of Item 222, they must not bear a box manufacturer's certificate as provided for in Item 222-1.

Top-Heavy Articles

Sec. 12. Articles as tendered for shipment weighing 200 pounds or greater and greater than 48 inches in height which exhibit a high center of gravity in their normal orientation of loading for in-transit movement must be placarded on two opposite sides conspicuously displaying the following symbol as a precautionary warning:



Top-heavy articles are those having a center of gravity higher than $1/2$ their standing height and having a height of two times or greater of the shorter base dimensions, as packaged.

Environmental or Event Monitors, Indicators or Recorders

Sec. 13. (a) Environmental or event monitors, indicators or recorders are devices that can be placed on or within a package, handling unit or vehicle to monitor the shipping and storage environment. These devices are intended to detect if an event has occurred or an environmental threshold has been surpassed for many types of shipping conditions such as, but not restricted to, shock/impact, vibration, tilting, temperature, humidity, atmospheric pressure or exposure to light.

Sec. 13. (b) The reliability of environmental or event monitors, indicators or recorders is not always certain. Consequently, these devices might not constitute sufficient evidence of mishandling of the freight.

Articles or Containers with Wheels or Casters

Sec. 14. Articles that are tendered for shipment with wheels or casters attached, or in containers with wheels or casters attached, must be equipped with locking or retracting devices or be packaged in such a manner as to prevent movement during transportation. When tendered on lift truck skids, pallets or platforms, articles or containers with wheels or casters attached must be secured to prevent any shifting during transportation and to prevent wheels or casters from falling through the lift truck skid, pallet or platform deck.

Where Damage to the Shipping Package Will Result in a Claim

Sec. 15. Unless otherwise provided in individual descriptions of articles, when damage to the shipping package, including cosmetic damage, will result in a claim for loss or damage, such package(s) must be overpacked or otherwise protected by packaging materials sufficient to prevent damage to the package(s). See also Item 222-1, Note 6.

Freight Requiring Protection from Rust or Corrosion, or from Freezing of Internal Liquids

Sec. 16. (a) Articles liable to damage by rust or corrosion must be coated with rust- or corrosion-preventative compounds or preparations, or be protected by rust- or corrosion-prevention packaging.

Sec. 16. (b) Machinery or vehicles, including aircraft, automobiles or boats, containing water or other liquid subject to freezing must be drained or have such water or liquid adequately protected by suitable antifreeze compounds or preparations.

Freight that Must be Floor-Loaded

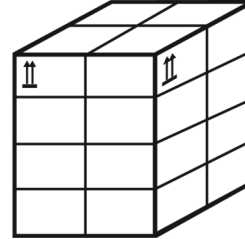
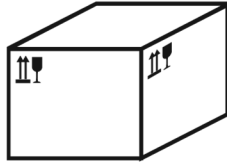
Sec. 17. Freight that cannot be safely top-loaded or decked for transport must be so marked on at least two adjacent sides of the handling unit (see Item 682, Sec. 15). Such freight may include, but is not limited to: hazardous materials; top-heavy or unstable handling units; liquid or semi-liquid products in drums or pails; handling units consisting of articles in bags (see Item 680, Sec. 7(b)(2)); or freight in intermediate bulk containers (IBCs) that lack an integral stacking alignment or securing design feature (see Item 280).

RULES

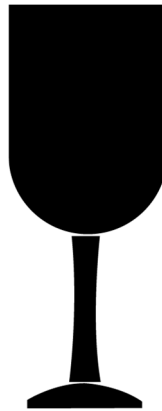
ITEM 682-B

PICTORIAL PRECAUTIONARY MARKINGS

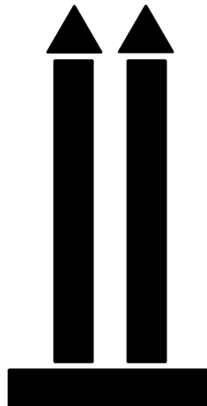
In addition to shipping container markings required by the Code of Federal Regulations (CFR), Title 49 for the shipment of hazardous materials, the following pictorial symbols or precautionary wording must be conspicuously shown only when conditions are applicable, indicating special handling or storage requirements. Palletized or unitized loads may be marked as a single unit. Markings must be shown on two adjacent sides of the handling unit as a minimum, with the exception of markings shown in Secs. 7(a), 8(a), 11 and 13. Symbols may be printed or adhered as a label. For prominence, such symbols may be within a border or have an opposing background color.



Sec. 1. FRAGILE-HANDLE WITH CARE:



In addition to being shown in the upper left corner of side panels, the glass symbol may also be positioned in any area of any panel to indicate the location of glass within the container.

Sec. 2. UP ARROWS:
(a)

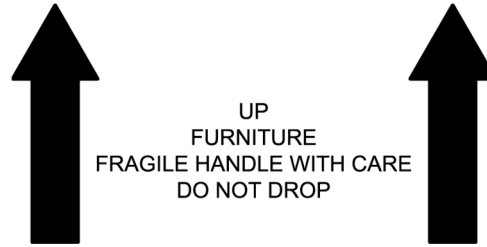
For reasons of preferable or multiple safe orientations, the above symbol may be shown in duplicate authorizing multiple direction upright positions as an option.

(Continued on following page)

RULES

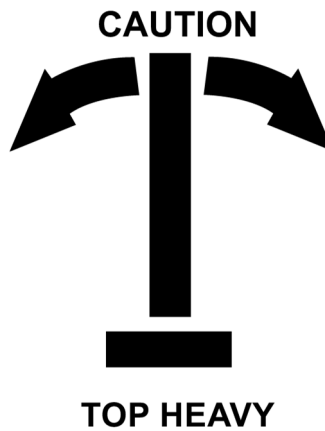
ITEM 682-B-Continued

(b)



All articles of furniture **must** show the above symbol and precautionary markings. Multiple direction arrows are authorized. In lieu of the above symbol, articles of furniture may show the precautionary markings of **Sec. 1 and Sec. 2(a)** (see Note, item 79022) in combination only.

Sec. 3. TOP HEAVY:



For application, see Item 680, Sec.12.

Sec. 4. KEEP DRY:

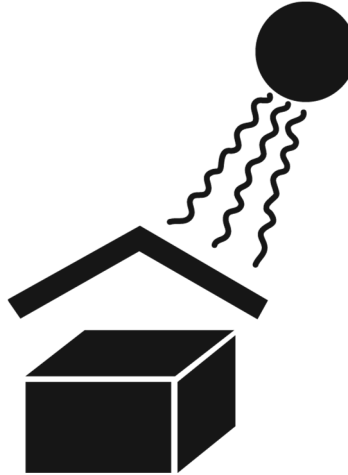


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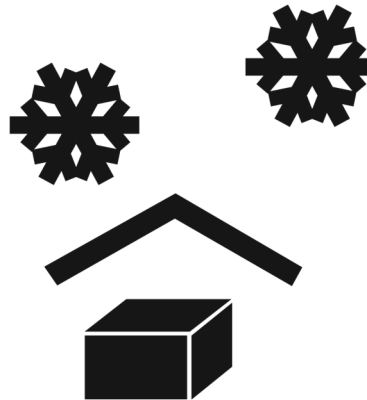
RULES

ITEM 682-B-Continued

Sec. 5. PROTECT FROM HEAT:



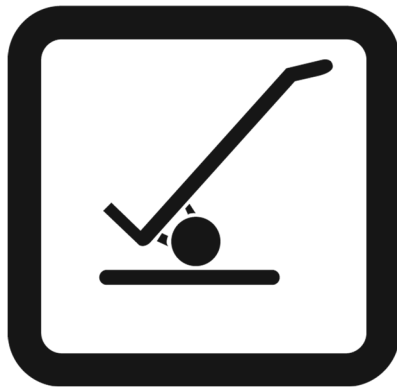
Sec. 6. PROTECT FROM FREEZING:



Sec. 7. HAND TRUCK:

Accordingly:

(a)



(b)



Must be shown on side of container where handling device should be used.

(Continued on following page)

RULES

ITEM 682-B-Continued

Sec. 8. FORKLIFT:

Accordingly:

(a)



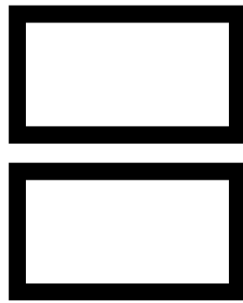
(b)



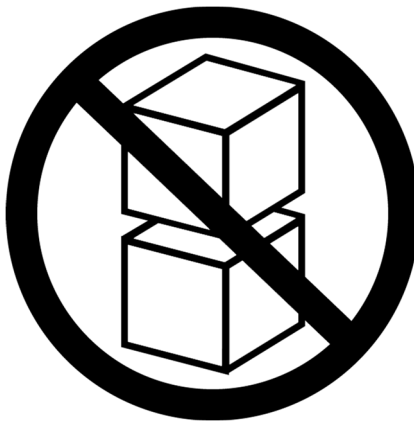
Must be shown on side of container where handling device should be used.

Sec. 9. STACK HEIGHT:

4

**Note**—The number '4' is shown for example only.

Sec. 10. DO NOT STACK:



(Continued on following page)

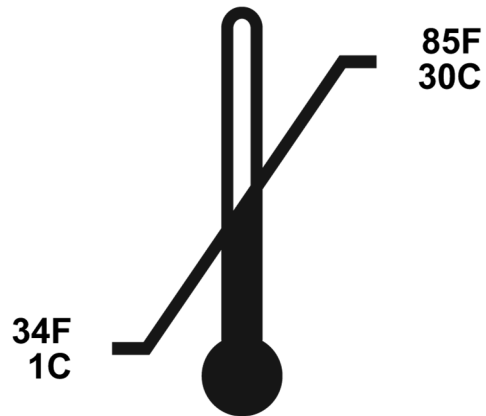
RULES

ITEM 682-B-Continued

Sec. 11. NO STEP:

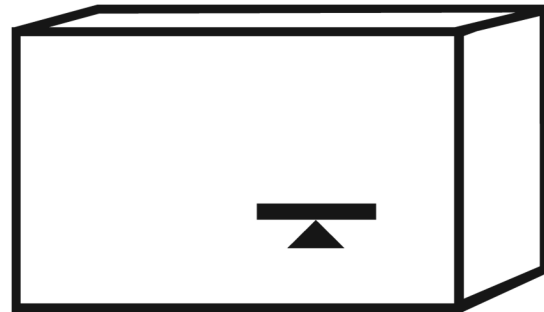


Sec. 12. TEMPERATURE LIMITS:



Note—The numbers shown relating to specific temperatures are for example only.

Sec. 13. CENTER OF BALANCE:



Must be shown on two opposite sides of container to indicate balance point for handling purposes.

(Continued on following page)

RULES

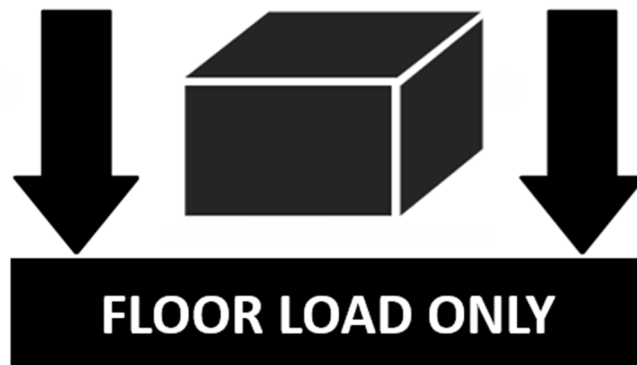
ITEM 682-B-Continued

Sec. 14. MAGNETICALLY SENSITIVE:

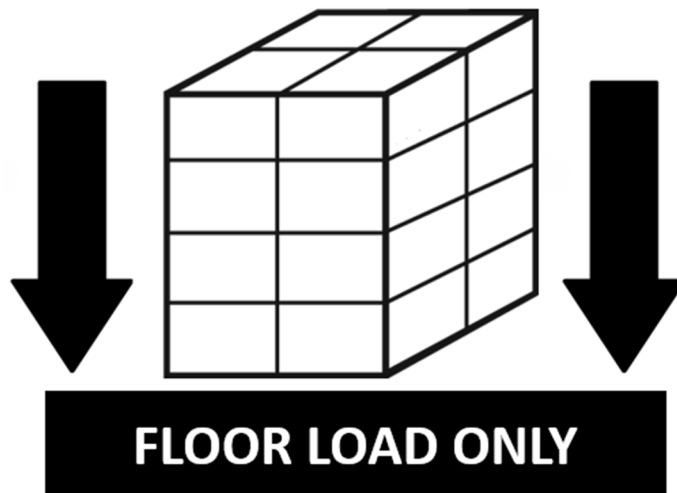


► Sec. 15. FREIGHT THAT MUST BE FLOOR-LOADED:

(a)



(b)



RULES

ITEM 687-A

PACKING OR PACKAGING—NON-COMPLIANCE WITH

Except as otherwise provided in ►Item 423, this rule applies on articles which do not comply with the packing requirements applicable to the respective articles under the terms of this Classification and ONLY when the failure to comply is discovered after the articles have been accepted for transportation. This rule does not authorize the repetitive tender or acceptance of shipments which do not comply with authorized forms of packaging.

Sec. 1. Packing Requirements.

The term 'packing requirements' as used in this rule means the provisions which specify (1) the kinds or specifications of the containers, packages or other manner in which the articles shall be packed or protected for shipment and (2) how the articles shall be packed or protected by or within such containers, packages or other manner. Marking or tagging as required by Item 580 of this Classification shall not be considered as a packing requirement for the purpose of applying this rule.

Sec. 2. Shipping Form.

The term 'shipping form' as used in this rule means a shipping form (other than a container or package) such as SU, KD, KD Flat, Nested, Not Nested, Nested Solid, Interlaced or Telescoped.

Sec. 3. Transportation Charge.

(a) The transportation charge on articles not complying with packing requirements shall be 120 percent of the charge determined by applying the highest class provided in this Classification for such articles in the same shipping form.

(b) The charge determined under paragraph (a) will apply only to that portion of the shipment that does not comply with the packing requirements.

(c) The charges determined under paragraphs (a) and (b) will apply to that portion of a shipment which does not comply with the packing requirements.

Sec. 4. Commodity Rate or Exception Class.

Where a commodity rate or exception class is provided on the article shipped but such article does not comply with the packing requirements of the commodity rate or exception, the following shall govern:

(a) If such article complies with the packing requirements of this Classification, the classes in this Classification shall apply on such article and the transportation charge provided by Sec. 3 will not apply.

(b) If such article does not comply with the packing requirements of this Classification, the charge will be determined under Sec. 3 based on the classification class.

ITEM 689-A

REQUIREMENTS AND CONDITIONS FOR TEST SHIPMENT PERMITS

☒Cancel; obsolete.

ITEM	ARTICLE	CLASS
	AGRICULTURAL IMPLEMENT PARTS GROUP: subject to item 10540	
▶10920-A	Fenders , agricultural implement, NOI, steel:	
Sub 1	Finished, in boxes or crates:	
Sub 2	Not nested	200
Sub 3	Nested, see Note, item 10924	100
Sub 4	Unfinished, not primed or primed with one coat only, nested, see Note, item 10924, in packages	85
10922-A	NOTE— <input checked="" type="checkbox"/> Cancel; no further application.	
▲10924-A	NOTE—Item 110, Sec. 13 will govern, except that “two or more” may be substituted for “three or more.” Nested provisions will also apply when one or more fenders are completely or partially enclosed within others.	
	ASPHALT GROUP: subject to item 15200	
15300-A	Pitch , NOI, ground, ▶in bags or drums	55
	ATHLETIC GOODS GROUP: subject to item 15500	
17540-A	Targets , clay, pitch or limestone composition, ▶in boxes	70
	AUTOMOBILE PARTS GROUP: subject to item 17800	
18660-A	Fenders , metal, ▶in boxes, crates or Package 2171:	
Sub 1	Further finished than as described in sub 2	250
Sub 2	Without finish or prime or primed with one coat only	200
▶21470-A	Baptistries , plastic, in packages	400
21472-A	NOTE— <input checked="" type="checkbox"/> Cancel; no further application.	
▲23810-A	NOTE—When tendering shipments of powdered commodities in bags of any description, such shipments will be subject to the provisions of Package 2353.	
23975-A	Blacks , aerated, coal, powdered, ▶in bags, boxes or drums, see Note, item 23810	60
24080-A	Bleach , laundry, dry, NOI, ▶in bags, boxes, drums or Package 2341	55
	BOILERS, FURNACES, STOVES AND RELATED ARTICLES GROUP: subject to item 25400	
▶25863-A	Broilers, Grills, Roasters or Stoves , cooking, outdoor type, electric, steel or cast aluminum, with heating elements, in boxes	125
▶26660-A	Manifolds , gas, furnace, stove or heater, without valves, in packages, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
26860-A	Radiators , hot water or steam, with or without air filters, enclosed in cabinets or housings; or Windowsill Height Radiator or Ventilator Units ; ▶in boxes or crates	85
27720-A	Bone , charred filtering (Animal Charcoal), etc... <input checked="" type="checkbox"/> Cancel; see item 42445.	
	BOX GROUP: subject to item 28900	
	Boxes: subject to item 28940	
29080-A	Cheese , cylindrical, wooden, etc... <input checked="" type="checkbox"/> Cancel; see item 29785.	
29110-A	Cigar , fiberboard, see Note, item 29112, or wooden, etc... <input checked="" type="checkbox"/> Cancel; see item 29785.	
29112-A	NOTE— <input checked="" type="checkbox"/> Cancel; no further application.	
29140-A	Core , wooden, etc... <input checked="" type="checkbox"/> Cancel; see item 29785.	
29780-A	Boxes or Cans , chemically hardened fiber, or Roving Cans or Roving Can Bodies , fiberboard or chemically hardened fiber, etc... <input checked="" type="checkbox"/> Cancel; obsolete.	
29785-A	Boxes or Cartons , fiberboard or paperboard, NOI; ▶ or Boxes or Crates , wood, NOI; with or without components of other materials, see Note, item 29786, in packages, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
▲29786-A	NOTE—Also applies on Boxes, Files, Pockets or Slipcases utilized to hold or organize albums, books, magazines, reference texts or similar articles.	
29790-A	Boxes or Chests , tool, ammunition or fishing tackle, etc... <input checked="" type="checkbox"/> Cancel; see item 29900.	
29792-A	NOTE— <input checked="" type="checkbox"/> Cancel; no further application.	
29800-A	Boxes or Crates , wooden, NOI, capacity less than 135 cubic feet, etc... <input checked="" type="checkbox"/> Cancel; see items 29785 and 112870.	
29805-A	Boxes or Crates , wooden, NOI, capacity not less than 135 cubic feet... <input checked="" type="checkbox"/> Cancel; see item 29785.	
29810-A	Boxes or Crates , wood and wire combined, NOI, etc... <input checked="" type="checkbox"/> Cancel; see items 29785 and 112870.	

ITEM	ARTICLE	CLASS
★29900	Boxes, Chests or Cabinets , tool, ammunition or fishing tackle, NOI, in boxes or crates, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
	BUILDING MATERIALS, MISCELLANEOUS, GROUP: subject to item 33570	
35540-A	Windows (Sash or Sash and Frames combined) , NOI, glazed, with or without screens or necessary hardware:	
Sub 1	► In boxes, crates or Package 2442, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 2	Less than 6	300
Sub 3	6 but less than 10	150
Sub 4	10 or greater	77.5
Sub 5	► In packages other than boxes, crates or Package 2442, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 6	Less than 6	400
Sub 7	6 but less than 10	175
Sub 8	10 or greater	85
	CABINETS, OR PARTS NAMED: subject to item 39200	
39340-A	Garage or Shop , tool or parts storage, steel, 18 gauge or thicker, other than wheeled, etc...☒Cancel; see item 29900.	
39455-A	Tool , wall mounting, wood and hardboard, completely disassembled, etc...☒Cancel; see item 29900.	
39460-A	Tool , with drawers, steel, wheeled, wheels on or off, etc...☒Cancel; see item 29900.	
39462-A	NOTE—☒Cancel; no further application.	
39463-A	NOTE—☒Cancel; no further application.	
	CANDY GROUP: subject to item 39900	
39980-A	Chewing Gum , ► in boxes, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 15	92.5
Sub 2	15 or greater	70
	CARBON: subject to item 40550	
40560-B	☛ Activated, viz.: Absorbent, clarifying, decolorizing, deodorizing or purifying, not offered for transportation as a Hazard Class 4, ► in bags, boxes or drums	70
★42445	Charcoal, Charcoal Briquettes or Charcoal Pellets , NOI, not activated, not required by the U.S. Department of Transportation to bear a Hazard Class or Hazard Division label or placard, see Note, item 42446, in bags or boxes, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 15	92.5
Sub 2	15 or greater	70
★42446	NOTE—Does not apply on materials regulated by the U.S. Department of Transportation as hazardous and required to bear a Hazard Class or Hazard Division label or placard. For classes applicable to such hazardous materials, see provisions elsewhere in this Classification.	
42460-A	Charcoal , other than animal or wood, NOI, not activated, etc...☒Cancel; see item 42445.	
42470-A	☛ Charcoal , wood, NOI, not activated, etc...☒Cancel; see item 42445.	
42480-A	☛ Charcoal Briquettes or Charcoal Pellets , self-igniting or other than self-igniting, etc...☒Cancel; see item 42445.	
	CHEMICALS GROUP: subject to item 42600	
42647-C	Acids , NOI, dry, not required by the U.S. Department of Transportation to bear a Hazard Class or Hazard Division label or placard, see Note, item 42649:	
Sub 1	In inner containers in boxes	92.5
Sub 2	In bulk in ► bags, boxes, drums or Package 2264	85
△42649-B	NOTE—Does not apply on materials regulated by the U.S. Department of Transportation as hazardous and required to bear a Hazard Class or Hazard Division label or placard. For classes applicable to such hazardous materials, see provisions elsewhere in this Classification.	
►42652-A	Adhesives, Adjuvants, Spreaders or Stickers , sprayable product, dry or liquid, not required by the U.S. Department of Transportation to bear a Hazard Class or Hazard Division label or placard, see Notes, items 42653 and 42654, in bags, boxes or drums	60
△42653-A	NOTE—Applies only on products named, designed for addition to sprayable defoliants, fertilizers, fungicides, herbicides, insecticides or miticides.	
★42654	NOTE—Does not apply on materials regulated by the U.S. Department of Transportation as hazardous and required to bear a Hazard Class or Hazard Division label or placard. For classes applicable to such hazardous materials, see provisions elsewhere in this Classification.	
42870-A	☛ Aluminum Phosphate , etc...☒Cancel; see item 44155.	
42920-B	☛ Ammoniacal Liquor or Aqua Ammonia , NOI, etc...☒Cancel; see item 44155.	
	Ammonium: subject to item 42930	
43080-A	☛ Silicofluoride , etc...☒Cancel; see item 45615.	
43150-A	Thiocyanate Crystals (Ammonium Sulfocyanate Crystals) , ► in bags or drums	70
43170-A	☛ Amyl Chloride , etc...☒Cancel; see item 44500.	
43180-A	☛ Amyl Phenol , etc...☒Cancel; see item 44155.	
43230-A	☛ Antimony Salts , NOI, etc...☒Cancel; see item 44155.	
43260-A	☛ Antimony Sulfides , NOI, or Sulfurated Antimony , etc...☒Cancel; see item 45615.	

ITEM	ARTICLE	CLASS
	CHEMICALS GROUP: subject to item 42600	
43290-A	☣ Arsenic Disulfide (Red Arsenic) , etc...☒Cancel; see item 45615.	
	Calcium: subject to item 43620	
43730-A	Chloride , other than liquid:	
Sub 1	In bulk in ►bags, drums or Packages 27, 81 or 358.....	60
Sub 2	►In containers in boxes.....	70
△44155-C	☣ Corrosive Materials , NOI, see Note, item 44156, in U.S. DOT-authorized packaging:	
Sub 1	In Packing Group I.....	92.5
Sub 2	In Packing Group II.....	85
Sub 3	In Packing Group III.....	70
△44156-C	NOTE—Applies on materials regulated by the U.S. Department of Transportation as a Hazard Class 8, Corrosive Material, as defined in 49 CFR §173.136 and required to bear a notice to that effect on bills of lading and packaging.	
△44500-C	☣ Flammable Liquids , NOI; or Combustible Liquids in bulk containers with a maximum capacity greater than 119 gallons, NOI; see Note, item 44501, in U.S. DOT-authorized packaging:	
Sub 1	In Packing Group I.....	100
Sub 2	In Packing Group II.....	92.5
Sub 3	In Packing Group III.....	85
△44501-C	NOTE—Applies on materials regulated by the U.S. Department of Transportation as a Hazard Class 3: Flammable Liquid; or Combustible Liquid in bulk containers; as defined in 49 CFR §173.120 and required to bear a notice to that effect on bills of lading and packaging.	
△44515-C	☣ Flammable Solid, Spontaneously Combustible or Dangerous When Wet Materials , NOI, see Note, item 44516, in U.S. DOT-authorized packaging:	
Sub 1	Offered for transportation as a Hazard Class 4, Division 4.3:	
Sub 2	In Packing Group I.....	110
Sub 3	In Packing Group II.....	100
Sub 4	In Packing Group III.....	92.5
Sub 5	Offered for transportation as a Hazard Class 4, Division 4.2:	
Sub 6	In Packing Group I.....	150
Sub 7	In Packing Group II.....	92.5
Sub 8	In Packing Group III.....	85
Sub 9	Offered for transportation as a Hazard Class 4, Division 4.1:	
Sub 10	In Packing Group I.....	125
Sub 11	In Packing Group II.....	85
Sub 12	In Packing Group III.....	77.5
△44516-C	NOTE—Applies on materials regulated by the U.S. Department of Transportation as a Hazard Class 4: Division 4.1, Flammable Solid, other than Self-reactive Material; Division 4.2, Spontaneously Combustible Material; or Division 4.3, Dangerous When Wet Material; as defined in 49 CFR §173.124 and required to bear a notice to that effect on bills of lading and packaging. For classes applicable to Self-reactive Material, see item 46047.	
45460-A	☣ Odorants , gas, NOI, etc...☒Cancel; see item 44500.	
45462-A	NOTE—☒Cancel; no further application.	
△45467-C	☣ Oxidizers , NOI, see Note, item 45468, in U.S. DOT-authorized packaging:	
Sub 1	In Packing Group I.....	125
Sub 2	In Packing Group II.....	100
Sub 3	In Packing Group III.....	85
△45468-C	NOTE—Applies on materials regulated by the U.S. Department of Transportation as a Hazard Class 5, Division 5.1, Oxidizer, as defined in 49 CFR §173.127 and required to bear a notice to that effect on bills of lading and packaging.	
△45615-C	☣ Poisonous or Toxic Materials , see Note, item 45616, in U.S. DOT-authorized packaging:	
Sub 1	In Packing Group I:	
Sub 2	Poisonous by inhalation.....	150
Sub 3	Other than poisonous by inhalation.....	125
Sub 4	In Packing Group II.....	85
Sub 5	In Packing Group III.....	70
△45616-C	NOTE—Applies on materials regulated by the U.S. Department of Transportation as a Hazard Class 6, Division 6.1, Poisonous or Toxic Material, as defined in 49 CFR §173.132 and required to bear a notice to that effect on bills of lading and packaging.	
	Sodium (Soda): subject to item 46080	
46160-A	Bichromate , etc...☒Cancel; see item 45467.	
46170-A	☣ Bifluoride , etc...☒Cancel; see item 44155.	
46180-A	☣ Bisulfite , dry, etc...☒Cancel; see item 44155.	
46190-A	Bisulfite , liquid, etc...☒Cancel; see item 44155.	
46220-A	Carbonate , viz.:	
	Anhydrous (Soda Ash),	
	Bicarbonate ►(Baking Soda),	
	Decahydrate (Sal Soda),	
	Monohydrate,	
	Sesquicarbonate,	
	Soda Ash , modified, see Note, item 46222:	
Sub 1	In inner containers in boxes or drums.....	60
Sub 2	In bags, or in bulk in boxes or drums.....	55
△46222-A	NOTE—Provisions on modified soda ash apply on dry mechanical or fused mixtures of soda ash with other carbonates of soda or with sodium hydroxide, sodium silicates or sodium phosphates, or such mixtures when containing not in excess of 3 percent of other ingredients.	
46300-A	☣ Cyanide Liquor , etc...☒Cancel; see item 45615.	
46460-A	Oxalate , etc...☒Cancel; see item 45467.	

ITEM	ARTICLE	CLASS
	CHEMICALS GROUP: subject to item 42600	
	Sodium (Soda): subject to item 46080	
46540-A	⊗ Resinate , etc...⊗Cancel; see item 44515.	
46570-A	Silicate , dry, etc...⊗Cancel; see item 44155.	
46640-A	⊗ Sulfide , etc...⊗Cancel; see item 44515.	
46670-A	Trisodium Phosphate , chlorinated, etc...⊗Cancel; see item 44155.	
46700-A	Zincate , etc...⊗Cancel; see item 44155.	
	CHINA GROUP: subject to item 47490	
47500-A	Ceramicware, China, Earthenware, Porcelain or Stoneware , NOI, ►in boxes or crates, released to a value not exceeding \$1.70 per pound, see Note, item 47501, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
△47501-A	NOTE—Unless otherwise provided in individual participating carriers' tariffs, articles moving under the provisions of item 47500 shall only be accepted subject to a maximum liability of \$1.70 per pound. If shipper fails to declare a value, or declares a value in excess of \$1.70 per pound, shipment will not be accepted, but if the shipment is inadvertently accepted, it will be considered as being released to a value not exceeding \$1.70 per pound and the shipment will move subject to such limitation of liability. In no instance will carriers' liability exceed the actual value of the article lost or damaged.	
	CLAY GROUP: subject to item 47990	
48050-A	Bauxite (Beauxite) Ore , ►in bags, boxes or drums	50
48120-A	Chrome Ore , ►in bags, boxes or drums	50
	Clay: subject to item 48130	
48150-A	Fireclay , crude or ground, ►in bags, boxes or drums	50
48160-A	Clay , NOI, crude, ►in bags, boxes or drums	50
48170-A	Clay , NOI, crushed, ground or pulverized, ►in bags, boxes or drums	50
48210-A	Clay or Sand , processed for decolorizing, filtering or water softening, ►in bags, boxes or drums	55
48420-A	Pyrophyllite , crude, ►in bags, boxes or drums	50
48580-B	Cleaning, Scouring or Washing Compounds , not required by the U.S. Department of Transportation to bear a Hazard Class or Hazard Division label or placard, see Notes, items 48583 and 48585, viz.:	
	Bluing , laundry;	
	Cleaning, Scouring or Washing Compounds , NOI;	
	Degreasers ;	
	Detergents ;	
	Soap , liquid or other than liquid, including Soap Powder , NOI;	
	►In bags, boxes, drums, pails, intermediate bulk containers (IBCs) or Packages 602, 1333, 2039, 2189, 2213, 2289, 2309, 2341, 2355, 2393, 2398, 2399, 2410, 2440, 2463, 2467, 2473, 2478, 2479, 2499, 2500, 2521, 2526, 2528 or 2530	70
△48583-B	NOTE—Does not apply on hand soap in freestanding bottles or containers with integral pump. For applicable provisions, see item 59363.	
△48585-B	NOTE—Does not apply on materials regulated by the U.S. Department of Transportation as hazardous and required to bear a Hazard Class or Hazard Division label or placard. For classes applicable to such hazardous materials, see provisions elsewhere in this Classification.	
	CLOTH, DRY GOODS, FABRICS OR TEXTILES GROUP: subject to item 48920	
49017-A	Bedspreads or Coverlets , quilted; or Comforters or Quilts , bed, NOI; ►in boxes	200
50090-A	Compounds , boiler cleansing, preserving, scale preventing or scale removing, dry, ►in bags, boxes or drums	55
50195-A	Compounds , gas absorbing, NOI, see Note, item 50196, ►in bags, boxes or drums; or Cartridges , gas absorbing compound, in boxes	70
△50196-A	NOTE—Applies on compounds such as are used as an absorbing agent for gases in rescue breathing apparatus or in air conditioning apparatus.	
50236-A	Compounds , leather filling, NOI, ►in bags, boxes, drums or pails	65
50239-A	Compounds , magnesium metal fluxing or purifying, ►in bags, boxes or drums	55
50390-A	Compounds , welding, ►in bags, boxes, drums or Package 120	55
►53390-A	Cord, Cordage, Rope , other than wire rope, String or Twine , NOI, see Note, item 53392, in boxes or on reels, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 10	125
Sub 2	10 but less than 15	85
Sub 3	15 or greater	70
53391-A	Cord or String , kite, natural or synthetic fiber, etc...⊗Cancel; see item 53390.	
►53392-A	NOTE—Does not apply on commodities represented as 'ribbon,' 'thread' or 'yarn.'	

ITEM	ARTICLE	CLASS
	DAIRY PRODUCTS GROUP: subject to item 55360	
55380-A	Butter , NOI, Butter Grease , see Note, item 55382, or Margarine , ► in boxes:	
Sub 1	Frozen, also in greaseproof waterproof paper bags	100
Sub 2	Not frozen, also in drums, pails or Package 2257	77.5
△55382-A	NOTE—Also applies on Dehydrated Butter (Anhydrous Butter Fat) .	
★55450	Cheese , dehydrated or dried, granulated, grated or powdered, see Note, item 55451, in bags or boxes	70
★55451	NOTE—Applies only on shelf-stable dehydrated or dried cheese in granulated, grated or powdered form.	
55470-A	Cheese , including Cheese Food , ► NOI, ► see Note, item 55471, in boxes, drums or pails, in metal or wooden containers in crates, see Note, item 55472, or in Packages 1400, 1500, 2202, 2325 or 2414	77.5
★55471	NOTE—Does not apply on cheese crisps or other dried cheese snacks. For applicable provisions, see item 73260.	
△55472-A	NOTE—Tops of cylindrical wooden boxes for cheese or cheese food in forms or in bulk must be closely fitted and securely fastened.	
55742-A	Dampers, Louvers or Shutters , NOI, air, fire or smoke, with or without screen cloth backing, ► in boxes or crates, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 4	250
Sub 2	4 but less than 10	150
Sub 3	10 or greater	70
	DECORATIONS GROUP: subject to item 55750	
55890-A	Christmas Trees , artificial, NOI, with or without stands, in fiberboard tubes, see Note, item 55892, ► or in boxes, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 5	200
Sub 2	5 or greater	125
△55892-A	NOTE—Walls of tubes must be not less than 0.100 inch thick and ends of tubes securely capped or plugged.	
56040-A	Flowers, Foliage, Grasses, Leaves, Plants, Bushes, Trees, Vines or Branches , NOI, including Arrangements, Designs, Sprays or Wreaths , see Note, item 56041, artificial or natural, other than live plants, see Note, item 56042, ► in boxes, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
△56041-A	NOTE—Also applies on products in holders, or in holders weighted with cement, plaster or sand.	
△56042-A	NOTE—For provisions applicable on live plants, see item 71100, Florist or Nursery Stock Group.	
56290-A	Decorations, Notions or Novelties , see Notes, items 56291 and 56292, viz.: Carvings , wood, NOI, also in crates; Curios, Figures, Images, Ornaments, Sculpture or Statuary , NOI, see Note, item 56295; Decals or Stickers , NOI, see Note, item 56294; Decorations, Notions or Novelties , NOI; Decorations or Ornaments , Christmas tree or holiday, NOI, see Note, item 56293; Deodorants , contained in or in the form of decorations, novelties or ornaments; ► Drinking Straws , including straws in novelty shapes or with attached novelties; Gazing Globes ; Lint Removers , handheld, or Lint Remover Refills ; Nutcrackers , in the form of figures or images; Party Favors , including Party Hats ; Pinatas , with or without favors, gifts or candies; Potpourri ; Sets , candle, consisting of wax candle and plastic floral designs, with or without holders; Trophies ; In boxes, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
△56291-A	NOTE—Does not apply on articles of gold, sterling silver or other precious metals or articles with sterling silver parts such as covers, backs, frames, handles or tops, but not including articles with small silver ornaments.	
△56292-A	NOTE—Does not apply on antiques, articles of antiquity, museum exhibits, original works of art, or works of art reproduced from an original in limited quantities and so authenticated by the artist (limited editions).	

ITEM	ARTICLE	CLASS
△56293-A	NOTE—Ornaments exceeding 2 ¹ / ₄ inches in diameter, or Christmas-tree-top ornaments, must be in inner cartons made of fiberboard or paperboard not less than 0.030 inch thick. Ornaments not exceeding 2 ¹ / ₄ inches in diameter, other than Christmas-tree-top ornaments, must be in inner cartons made of fiberboard or paperboard not less than 0.026 inch thick. Cartons for ornaments other than Christmas-tree-top ornaments must be equipped with fiberboard or paperboard interlocking honeycomb partitions having extended tips so as to provide not less than 1 ¹ / ₂ -inch clearance from side walls of carton; or must be equipped with flanged top and bottom trays of fiberboard or paperboard die-cut to accommodate each ornament and maintain not less than 1 ¹ / ₂ -inch clearance from side walls of box. Partition or tray material must be not less than 0.033 inch thick. Cartons for Christmas-tree-top ornaments must be equipped with die-cut fiberboard or paperboard suspension forms of material not less than 0.033 inch thick, arranged to maintain not less than 1 ¹ / ₂ -inch clearance between ornaments and all inside surfaces of carton. Inner cartons must be packed on ends or sides within the outer shipping box.	
△56294-A	NOTE—Does not apply on paper decals designed to transfer images by means of heat and pressure. For classes, see item 152900.	
△56295-A	NOTE—Does not apply on inflatable or air-supported promotional or advertising figures or images. For applicable provisions, see item 63595.	
	DENTAL, HOSPITAL OR MEDICAL SUPPLY GROUP: subject to item 56400	
56793-A	Kits, pregnancy test, etc...☒Cancel; see item 56975.	
★56975	Tests or Test Kits, pregnancy or ovulation, in boxes	200
57420-A	Distillery Molasses Residuum (Residuum from Molasses Distillation); dry, ►in bags, boxes or drums; or liquid, in drums.....	60
	DRAWING INSTRUMENTS, OPTICAL GOODS OR SCIENTIFIC INSTRUMENTS: subject to item 57670	
58340-A	Telescopes, observatory, without lenses or mirrors, KD, ►in boxes.....	100
	DRUGS, MEDICINES, TOILET PREPARATIONS OR PERSONAL CARE PRODUCTS GROUP: subject to item 58500	
►59380-A	Solutions or Sterile Water, intravenous, in boxes	70
59382-A	NOTE—☒Cancel; no further application.	
59384-A	NOTE—☒Cancel; no further application.	
	ELECTRICAL EQUIPMENT GROUP: subject to item 60500	
60630-A	Ballasts, lamp, not enclosed in lamp channels or chassis, ►in boxes	65
60680-A	⚡Batteries or Cells, listed in 49 CFR §172.101, Hazardous Materials Table, see Note, item 60702, ►in boxes, see Note, item 60703:	
Sub 1	Offered for transportation as a Hazard Class 4, 8 or 9.....	70
Sub 2	Not offered for transportation as a Hazard Class 4, 8 or 9.....	65
60700-A	Batteries or Cells, not listed in 49 CFR §172.101, Hazardous Materials Table, see Note, item 60702, ►in boxes, see Note, item 60703	60
△60702-A	NOTE—Does not apply on batteries that are mounted in cabinets or racks, with or without wiring or electrical controls, nor on fuel cells.	
△60703-A	NOTE—Storage batteries, including automobile batteries, may also be shipped in crates or Package 2064 or on lift truck skids or pallets.	
61110-A	Cabinets, Enclosures, Frames or Housings, electrical apparatus, steel, NOI, with or without side, top or bottom panels or doors, see Note, item 61111, ►in boxes, crates or Package 2520, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 8	150
Sub 2	8 or greater	100
△61111-A	NOTE—Applies on industrial cabinets, enclosures, frames or housings designed to protect or house rack-mount, network or related equipment. Units may be stand-alone or configured into a modular system to form multi-bay assemblies.	
△64300-A	⚡Explosives, consisting of ammunition, explosive or incendiary, or gas or smoke or tear producing; Explosives, NOI; Propellants, explosive; Blasting Agents; Detonators, Igniters or Squibs, motor vehicle air bag deploying; Fireworks; Flares, NOI; or Ammunition or Cartridges, small arms, blank or loaded; in containers as provided in Item 540:	
Sub 1	Hazard Class 1, Division 1.1, 1.2 or 1.3, see Note, item 64301	200
Sub 2	Other than Hazard Class 1, Division 1.1, 1.2 or 1.3, see Note, item 64302	85
△64301-A	NOTE—Applies only on articles named when classed as Class 1, Division 1.1, 1.2 or 1.3, explosives in the U.S. Department of Transportation hazardous materials regulations. Bill of lading descriptions must also conform to the requirements of the U.S. Department of Transportation hazardous materials regulations.	
△64302-A	NOTE—Applies only on articles named when classed as Class 1, Division 1.4, 1.5 or 1.6, explosives, ORM-D, or flammable liquids in the U.S. Department of Transportation hazardous materials regulations. Bill of lading descriptions must also conform to the requirements of the U.S. Department of Transportation hazardous materials regulations.	
	FLOOR OR WALL COVERINGS AND RELATED ARTICLES GROUP: subject to item 70500	
71000-B	Rugs, NOI, value declared in writing by shipper, or agreed upon in writing as the released value of the property in accordance with the following, see Notes, items 71002 and 71006, ►in boxes or Package 267:	
Sub 1	If not exceeding \$125.00 per 100 pounds, see Note, item 71004, in cloth covered bales or rolls	100
Sub 2	If exceeding \$125.00 per 100 pounds, and not exceeding \$200.00 per 100 pounds.....	150
Sub 3	If exceeding \$200.00 per 100 pounds, and not exceeding \$300.00 per 100 pounds.....	200
Sub 4	If exceeding \$300.00 per 100 pounds	300

ITEM	ARTICLE	CLASS
△71002-B	NOTE—The value declared in writing by the shipper, or agreed upon in writing as the released value of the property, as the case may be, must be entered on shipping order and bill of lading, as follows: <i>“The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per 100 pounds.”</i> (Classes herein based on released value have been authorized by the Interstate Commerce Commission in Released Rates Orders MC No. 1 of January 16, 1936, as amended October 20, 1948, August 9, 1966, October 7, 1966, October 12, 1970 and March 31, 1980.)	
△71004-B	NOTE—Each bale or roll must contain identification markings, which meet the requirements of Item 580 on the circumference of the wrapper and on the wrapper at one end of the bale or roll. If bale or roll has an exposed core, wrapper must contain identification markings at the exposed core end.	
△71006-B	NOTE—If consignor declines to declare the value, or agree to released value in writing, shipment will not be accepted.	
	FOODSTUFFS GROUP: subject to item 72000	
72260-A	Brewers' Wort , dry, ► in bags	65
72310-A	Cereals, viz.: Baby Cereals; Cereals , NOI, ready-to-eat, including Granola , see Note, item 72311; Cereals , NOI, requiring further cooking or heating (Hot Cereals); Oatmeal ► or Porridge , including Mush ; In bags, boxes, drums or Packages 128, 2231, 2465, 2470 or 2493, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 8.....	150
Sub 2	8 but less than 12	100
Sub 3	12 or greater.....	70
△72311-A	NOTE—The term ‘ready-to-eat cereals’ refers to prepared cereals ready for human consumption without further cooking or heating.	
72760-A	Dessert Preparations , such as ice cream, jelly, pie or pudding preparations, other than frozen, NOI, see Note, item 72762, ► in boxes, drums, pails or five-ply multiple-wall paper bags:	
Sub 1	Sweetened, other than with sugar	92.5
Sub 2	Unsweetened; or sweetened with sugar.....	60
△72762-A	NOTE—Inner containers may contain a small quantity of dry or liquid flavoring.	
72800-A	Dough , prepared, other than frozen, see Note, item 72802, ► in boxes.....	77.5
△72802-A	NOTE—Applies also when containing other ingredients or an accompanying complement of ingredients or icing or topping.	
72910-B	Extracts , NOI; Flavoring Compounds , NOI; Imitation Flavors , NOI; or Bottlers' Flavoring Compounds , NOI, see Note, item 72917; liquid, paste or dry, not required by the U.S. Department of Transportation to bear a Hazard Class or Hazard Division label or placard, see Notes, items 72911, 72914 and 72916; in boxes or drums; or dry, ► in bags or Packages 1000, 2358 or 2440	70
△72911-B	NOTE—Does not apply on materials regulated by the U.S. Department of Transportation as hazardous and required to bear a Hazard Class or Hazard Division label or placard. For classes applicable to such hazardous materials, see provisions elsewhere in this Classification.	
△72914-B	NOTE—Inner containers may include plastic or metal molds, or paper, plastic or wooden sticks not in excess of 5 percent of gross weight of package.	
△72916-B	NOTE—There may be included in each package a quantity of sodium salts not in excess of 5 percent of the gross weight of the package.	
△72917-B	NOTE—There may be included in each shipment of Bottlers' Flavoring Compounds a quantity of phosphoric acid solution, alcohol solution, or a combination of both, not in excess of 15 percent of the total shipment weight.	
73227-C	Foodstuffs , other than frozen, Group I , etc...☒Cancel; see items 72310, 73260, 73365 and provisions otherwise applicable.	
73229-C	NOTE—☒Cancel; no further application.	
73233-C	NOTE—☒Cancel; no further application.	
73235-C	NOTE—☒Cancel; no further application.	
73260-A	Foodstuffs , other than frozen, Group IV, viz.: Bakery Goods , NOI, also in Packages 128 or 2428; Coffee, Tea or Herbal Tea , NOI, see Note, item 73261, ► also in Packages 128, 2330 or 2380; Cookies or Crackers , NOI, ► also in Packages 128 or 2428; Foodstuffs , NOI; ► Sauces or Toppings , ice cream or dessert, NOI, in other than pressurized containers, including Marshmallow Creme, Nuts (Nutmeats) in Syrup, or Sprinkles ; ► Snack Foods , NOI; In bags, boxes, drums or Packages 1000, 1400, 2404, 2414 or 2416, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1.....	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater.....	60

ITEM	ARTICLE	CLASS
	FOODSTUFFS GROUP: subject to item 72000	
△73261-A	NOTE—Also applies on: instant, soluble, freeze-dehydrated or freeze-dried coffee, tea or herbal tea; coffee, tea or herbal tea in premeasured servings, with or without integral filter; or Coffee Service Kits or Sets , consisting of coffee in premeasured servings, with or without integral filter, and with or without non-dairy creamer, sugar or artificial sweetener, stirrers, tea, herbal tea or hot chocolate in same box.	
★73365	Fruits or Vegetables , canned or preserved, NOI, other than dehydrated, dried or evaporated, see Note, item 73366, in boxes, drums or Packages 1000, 1264, 2288, 2303, 2438, 2463, 2467, 2498, 2499, 2500 or 2507	60
★73366	NOTE—Also applies on: Beans , edible, with or without other ingredients, NOI; Fruit Butter or Pulp ; Jams, Jellies, Marmalades or Preserves , NOI; Mushrooms , other than truffles; Olives ; Pickles , NOI; Pimientos ; Tomatoes , including Tomato Paste, Tomato Pulp or Tomato Puree .	
73570-A	Juice , fruit or vegetable, including Juice Concentrates, Juice Beverages or Juice Drinks ; or Cider , fruit, including Cider Concentrates , nonalcoholic; ► in boxes, drums, pails or Packages 1000, 1264, 1500, 2288, 2400, 2437, 2438, 2463, 2467, 2498, 2499, 2500 or 2515	60
74035-A	Milk or Cream Products , shelf-stable, viz.: Milk or Cream , liquid, including Milk Beverages or Milk Drinks ; Milk or Cream Substitutes , including Nondairy Creamers or Plant-Based Milk or Cream Products , NOI; ► In boxes, drums or Packages 2463, 2498, 2499 or 2500	65
74490-A	Preparations , beverage, NOI, dry or liquid, other than straws containing beverage preparations, see Note, item 74491, ► in boxes, drums or Packages 1000, 2257, 2288, 2330, 2402 or 2438:	
Sub 1	Sweetened, other than with sugar	70
Sub 2	Unsweetened; or sweetened with sugar	60
△74491-A	NOTE—Also applies on those products which have been prepared by dehydration or drying in conjunction with extreme temperatures.	
74700-A	Sauces, Condiments, Dips or Spreads , other than dry, viz.: Barbecue Sauce ; Condiments , NOI; Dips , NOI; Gravy ; Horseradish , prepared; Hot Sauce or Pepper Sauce ; Ketchup (Catsup) ; Marinades ; Mayonnaise ; Mustard , prepared; Salad Dressing , including Vinaigrette ; Salsa ; Sandwich Spreads , NOI, including Cheese Spreads ; Sauces , basic food, NOI, including Marinara, Pizza or Spaghetti Sauce ; Sauces , cooking or dipping, NOI; Soy Sauce ; ► In boxes, drums or Packages 1204, 1400, 1429, 2093, 2288, 2303, 2438, 2463, 2467, 2498, 2499 or 2500	65
74990-A	Sugar , spiced, ► in bags, boxes or drums.....	65
75400-A	Vinegar , liquid, ► in boxes, drums or Packages 2463, 2498, 2499 or 2500.....	60
	FURNITURE GROUP: subject to item 79000	
	Metallic or Wooden: subject to item 79600	
81370-A	Map Cases , etc...☒Cancel; obsolete.	
	FURNITURE PARTS GROUP: subject to item 82750	
83250-A	Furniture Frames , wooden, NOI:	
Sub 1	►SU, in boxes or crates, see Note, item 83252	200
Sub 2	SU, without backs or with backs detached, legs detached, in boxes or crates	150
Sub 3	KD, in packages.....	85
△83252-A	NOTE—Furniture frames, SU, may be shipped loose if carved portions or portions not to be covered by upholstery are wrapped with packaging material of sufficient strength to protect articles during transportation.	
83470-A	Shelves or Trays , kitchen cabinet, or Table Tops , enameled steel, ► in boxes or crates	85
83740-A	Galvanizing Blanket Crystals , etc...☒Cancel; obsolete.	

ITEM	ARTICLE	CLASS
	GAMES OR TOYS GROUP: subject to item 83900	
84100-A	Doll Heads , ► in boxes or drums, or Doll Bodies , in bags, boxes or drums.....	125
84260-A	Games or Toys, viz.: Doll Carriages or Strollers; Dolls or Doll Clothing or Accessories; Equipment , toy or model railroad, see Note, item 84262; Games or Toys, NOI; Model Kits , hobby or toy; Puzzles; Stuffed Animals; Video Game Consoles , other than coin- or currency-operated; Video Games , NOI, other than coin- or currency-operated, see Note, item 84261; ► In boxes or Packages 2213, 2249 or 2296, subject to Item 170 and having a density in pounds per cubic foot of: Sub 1 Less than 1..... Sub 2 1 but less than 2..... Sub 3 2 but less than 4..... Sub 4 4 but less than 6..... Sub 5 6 but less than 8..... Sub 6 8 but less than 10..... Sub 7 10 but less than 12..... Sub 8 12 but less than 15..... Sub 9 15 but less than 22.5..... Sub 10 22.5 but less than 30..... Sub 11 30 or greater.....	400 300 250 175 125 100 92.5 85 70 65 60
△84261-A	NOTE—Does not apply on cartridge-type video games as named in item 63025.	
△84262-A	NOTE—Applies on locomotives, cars, tracks or accessories whether or not in sets.	
	GLASSWARE GROUP: subject to item 87500	
87590-A	Balls , lightning rod, etc...☒Cancel; obsolete.	
87630-A	Battery Fillers , with or without hydrometer for each filler, etc...☒Cancel; obsolete.	
△87810-A	Bulbs or Tubes, NOI, or Bulb or Tube Subassemblies , see Note, item 87811; or Pipe, Rods or Tubing , straight, NOI, see Note, item 87812; in boxes or crates, see Note, item 87813: Sub 1 Density less than 10 pounds per cubic foot; or actual value exceeding \$40.00 per pound; or where no density or value is shown at time of shipment..... Sub 2 Density 10 pounds or greater per cubic foot and actual value not exceeding \$40.00 per pound, see Note, item 87814.....	175 70
△87811-A	NOTE—Provisions apply only when not containing filaments or gases and without fittings, except they may have metal contact buttons or metal or plastic rings or gaskets.	
△87812-A	NOTE—Products containing 90 percent or more of silica or quartz, or having fittings or pieces attached are subject to the provisions for 'Glassware, NOI,' per item 88160.	
87813-A	NOTE—Glass bulbs or tubes or bulb or tube subassemblies may be shipped in Packages 1346 or 2006. Straight lengths of glass pipe, rods or tubing may be shipped ► in Packages 1060, 1195, 1440, 2028 or 2066.	
△87814-A	NOTE—Bills of lading and shipping orders must clearly show that the density is 10 pounds or greater per cubic foot and that the value per pound does not exceed \$40.00.	
88540-A	Smokers' or Toilet Sets , other than cut, etc...☒Cancel; obsolete.	
	GRAIN PRODUCTS GROUP: subject to item 89300	
89710-A	Mold Bran , etc...☒Cancel; obsolete.	
89820-A	Graphite , crude, lump, ground or powdered: Sub 1 In boxes..... Sub 2 ► In bags or drums.....	70 55
	GRAPHITE ARTICLES GROUP: subject to item 89850	
89990-A	Retorts or Retort Collars , etc...☒Cancel; obsolete.	
	GRAVEL OR STONE GROUP: subject to item 90100	
90650-A	Stone , natural, chips, crushed, dust, ground, powdered or waste, NOI, ► in bags, boxes or drums.....	50
	GREASE: subject to item 90800	
90970-A	Tanners' , NOI, etc...☒Cancel; obsolete.	
	GUMS: subject to item 91100	
91120-A	Accroides , etc...☒Cancel; obsolete.	
91140-A	Aloes , etc...☒Cancel; obsolete.	
91200-A	Balata , etc...☒Cancel; obsolete.	
91220-A	☒ Box Toe , etc...☒Cancel; see items 44500, 44515 and 64300, as applicable.	
91280-A	Congo , etc...☒Cancel; obsolete.	
91400-A	Iles , ground, etc...☒Cancel; obsolete.	
91440-A	Kawrie (Kauri) , etc...☒Cancel; obsolete.	
	HARDWARE GROUP: subject to item 92900	
►97470-A	Ventilators , window or door, steel or steel with wooden frames, in boxes or crates: Sub 1 In panels or KD flat..... Sub 2 Other than in panels or KD flat.....	85 100

ITEM	ARTICLE	CLASS
	HATS OR MILLINERY GROUP: subject to item 98150	
98390-A	Hats, Caps or Bonnets , NOI, ►in boxes, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
	HIDES GROUP: subject to item 98800	
	Hides, Pelts or Skins , dressed or tanned, and fur, hair, or wool not removed: subject to item 98820	
98870-A	Clippings or Scraps , mink, etc...☒Cancel; obsolete.	
	Hides, Pelts or Skins , not dressed nor tanned: subject to item 98950	
99190-A	Hog or Pig Skins or Hog or Pig Hide Trimmings , frozen, etc...☒Cancel; obsolete.	
99200-A	Hog or Pig Skins or Hog or Pig Hide Trimmings , green salted, not frozen, etc...☒Cancel; obsolete.	
99210-A	Hog or Pig Skins or Hog or Pig Hide Trimmings , pickled, etc...☒Cancel; obsolete.	
99230-A	Ostrich Skins , green, green salted or pickled, etc...☒Cancel; obsolete.	
99250-A	Sea Animal or Sea Fish , NOI, green salted, etc...☒Cancel; obsolete.	
99320-A	Switches or Tails , cattle or horse, dry, etc...☒Cancel; obsolete.	
	HOUSEHOLD UTENSILS GROUP: subject to item 100500	
100800-A	Dispensers , tea or ground coffee, household, including malted milk dispensers, etc...☒Cancel; see provisions otherwise applicable.	
	INK AND RELATED MATERIALS GROUP: subject to item 101710	
►101720-B	Ink and Related Materials , not required by the U.S. Department of Transportation to bear a Hazard Class or Hazard Division label or placard, see Note, item 101721, viz.:	
	Bases , color, ink;	
	Coatings , ink;	
	Compounds , ink reducing, thickening or thinning;	
	Driers , ink;	
	Extenders , ink;	
	Ink , brush or stencil marking;	
	Ink , printing, NOI;	
	Plasticizers , ink;	
	Solvents , ink;	
	Varnishes , ink;	
	In boxes, drums, pails or intermediate bulk containers (IBCs), subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 20	85
Sub 2	20 or greater	65
△101721-B	NOTE—Does not apply on materials regulated by the U.S. Department of Transportation as hazardous and required to bear a Hazard Class or Hazard Division label or placard. For classes applicable to such hazardous materials, see provisions elsewhere in this Classification.	
	LAMPS OR LIGHTING GROUP: subject to item 109000	
109700-B	Lamps or Lighting Fixtures , see Notes, items 109701, 109702, 109703 and 109704, viz.:	
	Floor Standing Lamps , with or without integral tray, also in Package 817;	
	Fluorescent or High Intensity Discharge (HID) Lighting Fixtures , NOI, with equipment of transformer or ballast, ►also in Packages 233, 790, 1406, 2228, 2312, 2477 or 2533, see Note, item 109705;	
	Housings , recessed incandescent lighting fixture;	
	Lamps , artificial sunlight, heating or therapeutic;	
	Lamps , NOI, ►also in Packages 817, 1424, 1467, 2204 or 5F;	
	Lighting Fixtures , NOI;	
	Parts , lamp, lantern or lighting fixture, NOI;	
	String Lights or Rope Lights , including Christmas or Holiday String Lights or Rope Lights ;	
	In boxes or crates, subject to Item 170 and having a density in pounds per cubic foot of, see Note, item 109706:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
△109701-B	NOTE—One lightbulb (light bulb) for each socket may be included in same box with lamp or lighting fixture.	
△109702-B	NOTE—The quantity of globes, shades, reflectors or similar devices must not exceed the number required to equip the articles with which shipped.	

SUPPLEMENT 4 TO NMF 100-AU

ITEM	ARTICLE	CLASS
△109703-B	NOTE—Lighting fixtures are lighting devices designed for permanent wiring to walls, ceilings, floors, posts or other similar mountings.	
△109704-B	NOTE—Does not apply on electric lighting fixtures equipped with posts or poles exceeding 96 inches in greatest dimension. Provisions for such lighting fixtures are found in item 161145.	
△109705-B	NOTE—Accompanying equipment of iron or steel or plastic reflectors may be in packages.	
△109706-B	NOTE—When lamps or lighting fixtures and their complement of globes, shades or reflectors are in separate packages, the density for determining the applicable provisions must be the result of the division of the total weight of all packages by the total cubage (cubic displacement) of all such packages.	
	LEAD: subject to item 110000	
110120-A	Ashes , etc...☒Cancel; obsolete.	
110160-A	Base Bullion , pig or slab...☒Cancel; obsolete.	
110270-A	Dross or Skimmings , etc...☒Cancel; obsolete.	
110290-A	Flue Dust , etc...☒Cancel; obsolete.	
110497-A	Weights , dress, etc...☒Cancel; obsolete.	
	LIQUORS, BEVERAGE: subject to item 111400	
111450-B	Liquors , alcoholic, NOI, not required by the U.S. Department of Transportation to bear a Hazard Class or Hazard Division label or placard, see Note, item 111451, ►in boxes, drums or Packages 1343, 1352, 2297 or 2539	100
△111451-B	NOTE—Does not apply on materials regulated by the U.S. Department of Transportation as hazardous and required to bear a Hazard Class or Hazard Division label or placard. For classes applicable to such hazardous materials, see provisions elsewhere in this Classification.	
111470-A	Liquors , malt: Ale, Beer, Beer Tonic, Porter, Stout or Nonintoxicating Cereal Beverage , in glass in bottle carriers with tops securely fastened, see Note, item 111473, ►or in boxes, drums or Packages 174, 1257, 1360, 1376, 1447 or 2297.....	65
△111473-A	NOTE—Bottle carrier containers made of fiberboard need not meet the certificate requirements of Item 222, but must be equipped with partitions full shoulder height of the bottles loaded therein. Such partitions must touch all four sides of the carrier. Inner packaging must comply with Item 222-2 or Package 174.	
	LUMBER GROUP: subject to item 112000	
112360-A	Box, Crate or Shipping Drum Material , wooden, fiberboard or paper covered, in shooks or panels, NOI, etc...☒Cancel; see item 112870.	
112380-A	Chips , wood, not charred, etc...☒Cancel; see item 113560.	
△112870-A	Lumber , NOI; or Wood , built-up or combined, or Plywood , NOI; see Notes, items 112871 and 112872, in packages, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 12.....	100
Sub 2	12 but less than 30.....	70
Sub 3	30 or greater.....	55
112871-A	NOTE—Also applies when wholly or partially covered with ►fiberboard, paper or plastic.	
△112872-A	NOTE—Does not apply on wood 'Pallets; Platforms; Racks, shipping, NOI; or Skids; for lift trucks,' as named in item 150390.	
112980-A	Plant Bands , horticultural, wood veneer, etc...☒Cancel; obsolete.	
★113560	Wood Chips or Wood Chunks , not charred, in bags or boxes, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 12.....	110
Sub 2	12 or greater.....	70
	MACHINERY GROUP: subject to item 114000	
	Business or Office: subject to item 115700	
115720-A	Accounting Card Machine Ink Rolls , etc...☒Cancel; obsolete.	
115880-A	Check Protecting Machines , etc...☒Cancel; obsolete.	
116400-A	Canning Racks , KD flat or bodies nested...☒Cancel; obsolete.	
	Cereal Milling: subject to item 116600	
116670-A	Clippers , oat or rice...☒Cancel; obsolete.	
116730-A	Flour or Meal Bolting or Scalping Machines , NOI, reel or sieve, etc...☒Cancel; obsolete.	
	Cheese Factory, Creamery or Dairy: subject to item 117100	
117200-A	Can Washing Machines ...☒Cancel; obsolete.	
117240-A	Cheese or Milk Vat Linings , metal, etc...☒Cancel; obsolete.	
117360-A	Cream or Milk Aerating or Cooling Cans , etc...☒Cancel; obsolete.	
118220-A	Cookers , cereal, nickel, etc...☒Cancel; obsolete.	
119060-A	Cream Separators , gravity (Cream Separating Cans), etc...☒Cancel; obsolete.	

Only participants in the NMFC at the time the transportation occurs may use the provisions herein.
For explanation of abbreviations and reference marks, see last page of this Supplement. ©NMFTA 2021

ITEM	ARTICLE	CLASS
	MACHINERY GROUP: subject to item 114000	
122000-A	Grading or Road Making Attachments or Implements, or Parts thereof, viz.: Blades or Cutting Edges , grader or scraper, steel, see Notes, items 122001, 122002 and 122003; ►Box Blades , tractor attaching; Graders, NOI, Levelers or Scrapers; Graders and Self-Propelled Road Rollers combined; Grading or Road Making Attachment or Implement Parts , NOI, iron or steel; Rollers , grading or road; Root Rakes, Rock Rakes or Stumper Blades , bulldozer; Scarifier Drums, Rotors or Wheels , iron or steel, without cutting teeth; Scarifier Teeth or Tooth Bases (Shanks); Scarifiers or Scarifiers and Mixers combined; Spreaders , gravel or sand; Tractors and Excavating, Grading or Loading Attachments combined; In packages, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 12.....	175
Sub 2	12 but less than 30	85
Sub 3	30 or greater	60
△122001-A	NOTE—Applies on blades or cutting edges with or without permanently affixed mounting brackets.	
△122002-A	NOTE—Does not apply on blades or cutting edges for moving, plowing or pushing snow. For applicable provisions, see items 130190 and 130195.	
△122003-A	NOTE—Does not apply on blades or cutting edges equipped with mounts, arms or devices for attaching to tractors or trucks. For applicable provisions, see item 114220.	
124590-A	Machines , merchandise vending (Vending Machines), coin or currency operated, with or without heating or refrigerating apparatus, NOI, ►in boxes, crates or Packages 994, 995, 2043, 2134 or 2188, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 10	125
Sub 2	10 or greater	85
125540-A	Mining, Ore Milling or Smelting: subject to item 125200	
125600-A	Pots , forehearth or settling...☒Cancel; obsolete.	
125640-A	Shells , converter, iron...☒Cancel; obsolete.	
125660-A	Trucks , coal cutting machine conveying, SU...☒Cancel; obsolete.	
►125745-A	Vanning Machines , etc...☒Cancel; obsolete.	
Sub 1	Mixers (Mixing Machines) , asphalt, cement, concrete, mortar or plaster, see Note, item 125746:	
Sub 2	In boxes or crates, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 3	Less than 8	150
Sub 4	8 or greater	100
Sub 5	In packages other than boxes or crates, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 6	Less than 8	200
►125746-A	8 or greater	125
125747-A	NOTE—Also applies on mixers wheeled or mounted on trailers or vehicles.	
126040-A	NOTE—☒Cancel; no further application.	
126120-A	Oil Mill: subject to item 125900	
127760-A	Oil Cake Press Boxes or Plates , brass, or brass and iron combined, etc...☒Cancel; obsolete.	
★130207	Seed Delinters , etc...☒Cancel; obsolete.	
131310-A	Pumps , hand or windmill: subject to item 127700	
131620-A	Link Belt Box Water Elevator , KD...☒Cancel; obsolete.	
131860-A	Sod Cutters , power, in boxes or crates	110
Sub 1	Textile Machine Parts: subject to item 131000	
Sub 2	Lug Straps , etc...☒Cancel; obsolete.	
Sub 3	Tire Extensions , traction engine wheel...☒Cancel; obsolete.	
Sub 4	Tractor Fenders (Mud Guards) , NOI, steel, ►in boxes or crates:	
△131862-A	Not nested	200
134100-A	Nested, see Note, item 131862:	
134220-A	Finished	100
134280-A	Unfinished, not primed or primed with one coat only.....	85
134300-A	NOTE—Item 110, Sec. 13 will govern, except that 'two or more' may be substituted for 'three or more.' Nested provisions will also apply when one or more fenders are completely or partially enclosed within others.	
134570-A	Markers , talc, sawed or chipped, etc...☒Cancel; obsolete.	
135620-A	Mats , blasting or bowling pit, rope, NOI, etc...☒Cancel; obsolete.	
135660-A	Meal , hoof or horn, etc...☒Cancel; obsolete.	
136040-A	Meal , kapok seed, etc...☒Cancel; obsolete.	
137360-A	MEATS OR SHORTENING GROUP: subject to item 134400	
	Meat Bones , etc...☒Cancel; obsolete.	
	METALS GROUP: subject to item 135300	
	Chromium Copper , etc...☒Cancel; obsolete.	
	Dross or Skimmings , babbitt metal, etc...☒Cancel; obsolete.	
	Quicksilver (Metallic Mercury) , ►in inner containers in boxes or drums, or in iron flasks	200
	Mineral Pulp , papermakers', calcium aluminate, lithopone pulp or satin white, ►in bags or drums	50

ITEM	ARTICLE	CLASS
137380-A	Mirrors , plastic, not bent, ► in boxes, crates or Packages 2187, 2207 or 2310, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 12.....	125
Sub 2	12 but less than 15.....	85
Sub 3	15 but less than 30.....	70
Sub 4	30 but less than 40.....	60
Sub 5	40 or greater.....	55
	PADS, PADDING AND RELATED ARTICLES GROUP: subject to item 149000	
149240-A	Pads or Cloths , scouring, Pot Scourers , Bufs and related articles, whether or not impregnated with soap, cleaning compound or disinfectant, viz.: Bufs , Buffing Pads or Buffing Wheels , NOI; Floor Maintenance Pads , see Note, item 149242; Polishing Wheels , NOI; Pot Scourers , NOI; Scouring Cloths ; Scouring, Cleaning or Polishing Pads , NOI: ► In boxes or Packages 1049, 2441 or 2479, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1.....	400
Sub 2	1 but less than 2.....	300
Sub 3	2 but less than 4.....	250
Sub 4	4 but less than 6.....	175
Sub 5	6 but less than 8.....	125
Sub 6	8 but less than 10.....	100
Sub 7	10 but less than 12.....	92.5
Sub 8	12 but less than 15.....	85
Sub 9	15 but less than 22.5.....	70
Sub 10	22.5 but less than 30.....	65
Sub 11	30 or greater.....	60
△ 149242-A	NOTE—Floor maintenance pads are pads which are used to strip, scrub, polish, buff or otherwise clean floors.	
	PAINTS GROUP: subject to item 149500	
149980-B	Paint and Related Materials , not required by the U.S. Department of Transportation to bear a Hazard Class or Hazard Division label or placard, see Note, item 149982, viz.: Additives , paint preserving; Color , mortar; Compounds , paint, lacquer, varnish, gum, resin, plastic or adhesive increasing, reducing, removing, thickening or thinning; Driers , paint or varnish; Fillers , wood; Lacquer ; Liquids , bronzing; Paint Oils ; Paints, Stains or Varnishes , NOI; Pigments , NOI; Plasticizers , paint, lacquer, varnish, gum, resin or plastic; Shellacs ; Solvent , paint, lacquer, varnish, gum, resin, plastic, rubber or adhesive; ► In bags, boxes, drums, pails, intermediate bulk containers (IBCs), portable tanks or Packages 33, 1398, 2138, 2257, 2301, 2335, 2374, 2403, 2404, 2440, 2445, 2463, 2467, 2473, 2499, 2516 or 2521, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 20.....	85
Sub 2	20 or greater.....	55
△ 149982-B	NOTE—Does not apply on materials regulated by the U.S. Department of Transportation as hazardous and required to bear a Hazard Class or Hazard Division label or placard. For classes applicable to such hazardous materials, see provisions elsewhere in this Classification.	
	PAPER ARTICLES GROUP: subject to item 152000	
152720-A	Covers , toilet seat, ► in boxes or Packages 215, 1214 or 2278.....	65
152840-A	Cups , paper, pulpboard or wood pulp, NOI, nested or KD flat, see Note, item 152841, ► in boxes.....	125
△ 152841-A	NOTE—Class also applies on one plastic, paper or pulpboard lid for each cup in the shipment. Lids may be separately packaged.	
153440-A	Inserts , cup or dish, see Note, item 153442, ► in boxes, or in cartons in crates.....	65
△ 153442-A	NOTE—Applies on inserts for finger bowls, ice cream dishes, dish or drinking cup holders and manicure dishes.	

ITEM	ARTICLE	CLASS
△153900-A	PAPER ARTICLES GROUP: subject to item 152000 Paper Goods or Articles, viz.: Cups, Liners or Molds, baking, or Cups, candy; Doilies; Facial Tissues (Handkerchiefs); Gift Wrap Sets, see Note, item 153902; Napkins; Neck Strips; Paper Goods or Articles, NOI; Placemats; Tablecloths; In boxes, see Note, item 153901, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1.....	400
Sub 2	1 but less than 2.....	300
Sub 3	2 but less than 4.....	250
Sub 4	4 but less than 6.....	175
Sub 5	6 but less than 8.....	125
Sub 6	8 but less than 10.....	100
Sub 7	10 but less than 12.....	92.5
Sub 8	12 but less than 15.....	85
Sub 9	15 but less than 22.5.....	70
Sub 10	22.5 but less than 30.....	65
Sub 11	30 or greater.....	60
►153901-A	NOTE—The following departures from packing requirements are permitted: 1. Doilies, neck strips, placemats or tablecloths may be shipped in Packages 215, 2177 or 2278. 2. Facial tissues (handkerchiefs) may be shipped in Packages 215, 1252, 2065, 2177 or 2278. 3. Napkins may be shipped in Packages 215, 1252, 2177, 2278 or 2279.	
△153902-A	NOTE—Applies on gift wrapping paper or paper-backed foil and one or more of the following in same retail package: boxes, gift cards, seals, tags, ribbon, ribbon bows or rosettes.	
154410-A	Toilet Paper, ►in boxes or Package 215.....	125
154415-A	Towels, see Note, item 154418, ►in boxes or Packages 215, 1214, 2278 or 2367:	
Sub 1	In rolls:	
Sub 2	Length of core 10 inches or less.....	100
Sub 3	Length of core greater than 10 inches.....	125
Sub 4	Other than in rolls, see Note, item 154416.....	100
△154416-A	NOTE—Also applies on paper towels folded and placed in dispensers or holders.	
△154418-A	NOTE—Also applies when paper is bonded or laminated to reinforcing fibers or open mesh fabric.	
	PESTICIDES GROUP: subject to item 155000	
155023-A	Copper Sulfate and Lime combined, with or without calcium arsenate or lead arsenate, dry, ►in bags, boxes or drums.....	60
155025-A	Copper Sulfate and Sulfur combined, ►in bags or drums.....	60
155035-A	Lime and Sulfur combined, dry, ►in bags, boxes or drums.....	60
	PLASTIC MATERIALS, OTHER THAN EXPANDED, GROUP: subject to item 156100	
156300-B	Sheet or Plate, NOI, self-supporting (rigid), other than with formed interior cells, cavities or flutes, see Note, item 156302, other than in rolls or coils, ►in boxes, crates or Packages 2187, 2207, 2310 or 2542:	
Sub 1	In authorized packages on A-frame shipping racks, see Note, item 156303.....	300
Sub 2	In authorized packages not on A-frame shipping racks; or on lift truck pallets or skids; see Note, item 156304:	
Sub 3	Exceeding 220 united inches.....	85
Sub 4	220 united inches or less, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 5	Less than 30.....	70
Sub 6	30 or greater.....	60
△156302-B	NOTE—Applies whether or not corrugated, crimped, channeled or ribbed, but not otherwise curved, bent or formed. Does not apply on sheet or plate with formed interior cells, cavities or flutes.	
△156303-B	NOTE—A-frame shipping racks are designed to transport the product as a unit in a diagonal position.	
△156304-B	NOTE—The term 'united inches' means the sum of the two greatest dimensions of the shipping package.	

ITEM	ARTICLE	CLASS
►156600-B	PLASTIC OR RUBBER ARTICLES, OTHER THAN EXPANDED, GROUP: subject to item 156500 Articles, viz.: Articles, NOI; Boot or Shoe Forms or Trees, other than display forms or trees; Caps, Covers, Discs, Ends, Bands, Rings or Tops, NOI, for bottles, cans, cups, collapsible tubes, glasses, jars or jugs; Car Seats, child or baby; Columns; or other Forms or Shapes, NOI; architectural; Containers, packaging, NOI; Dinnerware or Tableware, NOI; Filmstrip or Audio or Video Cassette Storage Albums; Garbage or Refuse Cans; Gloves, see Note, item 156604; Grips, NOI, including Golf Club, Hand Tool or Handlebar Grips; Liners, swimming pool, plastic film or sheeting; Mats, bathtub, shower stall, drainboard, sink or stove protector; Molding, other than baseboard or cove; Motion Picture Film Cans, Cores, Magazines, Reels or Film Spools, empty; Pipe or Pipe Fittings; Poultry Watering Systems, see Note, item 156603; Tanks, NOI; Tractor Treads, rubber; Tubing, NOI, other than flexible; In boxes, crates, drums or Packages 1078, 1241, 1273, 1456, 2195, 2212, 2213, 2230 or 2459, see Note, item 156602, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1.....	400
Sub 2	1 but less than 2.....	300
Sub 3	2 but less than 4.....	250
Sub 4	4 but less than 6.....	175
Sub 5	6 but less than 8.....	125
Sub 6	8 but less than 10.....	100
Sub 7	10 but less than 12.....	92.5
Sub 8	12 but less than 15.....	85
Sub 9	15 but less than 22.5.....	70
Sub 10	22.5 but less than 30.....	65
Sub 11	30 or greater.....	60
△156602-B	NOTE—The following departures from packing requirements are permitted: 1. Necks of empty carboys may project from boxes, crates or drums. 2. Plastic shipping containers or plastic bottles may be shipped in packages in quantities of 10,000 pounds or more; or plastic outer shipping containers having a capacity of 15 gallons or more may be shipped loose. Plastic gas cans having a capacity of 15 gallons or less may be shipped in bundles, unitized by heat shrinkable plastic film. Film must be of 2.5 mil minimum thickness, and must completely enclose entire bundle. 3. Plastic bottle carrying boxes or crates may be loose or in packages. 4. Extruded shapes in lengths of 10 feet or greater, having a density of 15 pounds or greater per cubic foot, may be in packages. 5. Plastic roof gutters, downspouts and/or fittings for gutters or downspouts may be shipped in Package 2060. 6. Plastic pipe or tubing, or tubes other than containers, in straight lengths may be shipped in packages or bundles with threaded ends protected. Plastic pipe or tubing, or tubes other than containers, greater than 6 inches in inside diameter, in straight lengths of 10 or more feet each may be shipped loose with threaded or belled ends protected. Plastic pipe or tubing, or tubes other than containers, other than in straight lengths, may be shipped in coils tied or wrapped with threaded ends protected or on fiberboard, wood or metal shipping reels. 7. Plastic pipe or tubes, smallest cross-sectional inside dimension greater than 6 inches, may be shipped in packages or in bundles with threaded or belled ends protected. Plastic pipe fittings may be shipped in packages with threaded or belled ends protected, or loose with threaded or belled ends protected when weighing each 15 pounds or over. 8. Plastic chairs may be shipped in Package 31F. 9. Plate or sheet, rolled, having a density of 15 pounds or greater per cubic foot, may be shipped strapped on pallets. 10. Molded plastic trays for shipping tube yarn may be shipped in packages. 11. Not currently used. 12. Flexible plastic fencing or mesh, produced by a stretching and extruding process, may be shipped in bundles or rolls. 13. Plate or sheet with formed interior cells, cavities or flutes may be shipped strapped on pallets or skids. 14. Garbage or refuse cans may be shipped in packages. 15. Not currently used. 16. Plastic tanks, other than outer shipping containers, may be shipped in packages. 17. Grips may be shipped in packages. 18. Swimming pool and pond liners may be shipped in wrapped bundles or rolls. 19. Poultry watering systems may be shipped in packages. 20. Cups or tumblers, without handles, may be shipped in Packages 2471 or 2505.	
△156603-B	NOTE—Applies on poultry watering systems consisting of pipe, plastic drinkers, water filtering, metering or regulating devices and equipment necessary for installation, with or without other components or accessories.	
△156604-B	NOTE—Does not apply on any commodity which is defined and specified as medical waste in Federal regulations. For applicable class, see item 101682.	

ITEM	ARTICLE	CLASS
156900-A	PLASTIC OR RUBBER ARTICLES, OTHER THAN EXPANDED, GROUP: subject to item 156500 Laminates , see Note, item 156902, viz.: Bars, Blocks, Rods or Sheets , not in rolls; ► in boxes, crates or Packages 2031 or 2085.....	60
△156902-A	NOTE—Applies only on layers of sheets of fabric or paper impregnated with thermosetting resins, hardened and set under heat and pressure.	
△157320-A	PLASTIC OR RUBBER ARTICLES OR MATERIALS, EXPANDED, GROUP: subject to item 157300 Articles, Forms or Materials, viz.: Articles , NOI, see Note, item 157344; Beads ; Blocks , NOI, see Note, item 157344; Boot or Shoe Forms or Trees , other than display forms or trees; Boxes or Chests , cooling, NOI, or Coolers , NOI, hand portable; Containers , liquid or beverage serving, hand portable; Flakes or Granules ; Floats , NOI; Forms or Shapes , NOI, see Note, item 157344; Grips , NOI, including Golf Club, Hand Tool or Handlebar Grips ; Ground ; Ice Buckets ; Insulation , NOI, see Notes, items 157344 and 157346; Molding , facing, baseboard or cove, including Ceiling Medallions or Cornices ; Plates , see Note, item 157344; Rods ; Sheets , NOI, see Notes, items 157344 and 157346; Shredded ; Slabs , see Note, item 157344; Tubes , NOI; Tubing , NOI, other than flexible; In bags, boxes or drums, see Note, item 157342, subject to Item 170 and having a density in pounds per cubic foot of: Sub 1 Less than 1 Sub 2 1 but less than 2 Sub 3 2 but less than 4 Sub 4 4 but less than 6 Sub 5 6 but less than 8 Sub 6 8 but less than 10 Sub 7 10 but less than 12 Sub 8 12 but less than 15 Sub 9 15 but less than 22.5 Sub 10 22.5 but less than 30 Sub 11 30 or greater.....	400 300 250 175 125 100 92.5 85 70 65 60
157342-A	NOTE—The following departures from packing requirements are permitted: 1. Blocks; plates, other than tableware; rods; tubes; or other shapes may be shipped in bales. 2. Boards; logs; planks; plates, other than tableware; sheets; or slabs constituting a shipment of 1,300 cubic feet or greater may be shipped loose. 3. Logs or slabs constituting a shipment of 600 cubic feet or greater may be shipped loose when each piece is at least 18 cubic feet. 4. Expanded plastic having a density not exceeding one pound per cubic foot may be shipped in two-mil plastic bags securely closed or in Package 2198. ►5. Not currently used. 6. Mattress forms or cores may be shipped in Packages 5F or 10F. 7. Forms or shapes, NOI, and molding, facing, baseboard or cove, including ceiling medallions or cornices, may be shipped in corrugated fiberboard containers, except the united inch provisions of Item 222 need not be complied with. Containers with one dimension less than nine inches must consist of a five panel folder with at least three overlapping flaps. All containers must test not less than 200 pounds. 8. Grips may be shipped in packages.	
△157344-A	NOTE—Also applies when faced one or both sides with other materials but does not apply on combinations of flexible cellular, expanded or foam plastic or rubber and cloth or fabric.	
△157346-A	NOTE—Does not apply on polypropylene in sheet form, polyethylene in sheet form or polystyrene in sheet form, when the packaged density as shipped is less than one pound per cubic foot. Such articles are classified in item 157463.	
►158400-A 158401-A	PLUMBERS' GOODS GROUP: subject to item 158000 Faucets , bathtub, drinking fountain, lavatory, laundry tub, shower, sink or urinal, in boxes..... NOTE—☒Cancel; no further application.	125

ITEM	ARTICLE	CLASS
△158880-A	PLUMBERS' GOODS GROUP: subject to item 158000 Plumbers' Goods, viz.: Bathroom or Lavatory Fixtures, NOI; Dispensers, shampoo, soap or toiletry, see Note, item 158882; Fittings, bathtub, drinking fountain, lavatory, laundry tub, sink, shower bath (shower), toilet or urinal, see Note, item 158881; Plumbers' Goods, NOI; Sink or Lavatory Legs or Pedestals; Sinks, Lavatories or Lavatory Basins or Bowls, NOI, also in Packages 977 or 1383; Sinks or Tubs, laundry, NOI, with or without legs or pedestals; Toilet Bowls, NOI, see Note, item 159506, also in Package 104; or Toilet Tanks, NOI; Toilets, NOI; In boxes or crates, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1.....	400
Sub 2	1 but less than 2.....	300
Sub 3	2 but less than 4.....	250
Sub 4	4 but less than 6.....	175
Sub 5	6 but less than 8.....	125
Sub 6	8 but less than 10.....	100
Sub 7	10 but less than 12.....	92.5
Sub 8	12 but less than 15.....	85
Sub 9	15 but less than 22.5.....	70
Sub 10	22.5 but less than 30.....	65
Sub 11	30 or greater.....	60
►158881-A	NOTE—Does not apply on toilet tank floats or toilet or bidet seats.	
△158882-A	NOTE—Also applies on cabinet-type dispensers and units equipped with organizers, racks or electrical devices.	
159003-A	Seats, toilet or water closet, other than hollow-molded plastic and other than with cellular or expanded plastic cushioning, etc...☒Cancel; see item 159005.	
★159005	Seats, toilet or bidet, NOI, in boxes, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 9.....	150
Sub 2	9 or greater.....	92.5
△159506-A	NOTE—Also applies on accompanying equipment of seats and covers when shipped with toilet bowls.	
164390-B	RACKS: subject to item 163900 Racks and Related Articles, viz.: Corrals, shopping cart (Cart Corrals), see Note, item 164393; Racks, NOI; Spice Racks, see Note, item 164394; Swimming Pool Cover Racks or Reels; ►In packages, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1.....	400
Sub 2	1 but less than 2.....	300
Sub 3	2 but less than 4.....	250
Sub 4	4 but less than 6.....	175
Sub 5	6 but less than 8.....	125
Sub 6	8 but less than 10.....	100
Sub 7	10 but less than 12.....	92.5
Sub 8	12 but less than 15.....	85
Sub 9	15 but less than 22.5.....	70
Sub 10	22.5 but less than 30.....	65
Sub 11	30 or greater.....	60
164391-B	NOTE—☒Cancel; no further application.	
△164393-B	NOTE—Applies on containment systems or structures for storing or holding shopping carts in parking lots.	
△164394-B	NOTE—Spice racks may be shipped with complement of empty bottles or jars in same package.	
►171410-B	Rubber Accelerators or Softeners, NOI, not required by the U.S. Department of Transportation to bear a Hazard Class or Hazard Division label or placard, see Note, item 171411, in bags, boxes or drums.....	70
★171411	NOTE—Does not apply on materials regulated by the U.S. Department of Transportation as hazardous and required to bear a Hazard Class or Hazard Division label or placard. For classes applicable to such hazardous materials, see provisions elsewhere in this Classification.	
175080-A	SHEET STEEL ARTICLES GROUP: subject to item 174300	
△176050-B	Refrigerator Panels, enameled, ►in boxes or crates Signs, NOI, prepaid, see Notes, items 176051 and 176052, in boxes, crates or Packages 1160 or 2337, see Notes, items 176053 and 176054, subject to Item 170 and having a density in pounds per cubic foot of:	100
Sub 1	Less than 1.....	400
Sub 2	1 but less than 2.....	300
Sub 3	2 but less than 4.....	250
Sub 4	4 but less than 6.....	175
Sub 5	6 but less than 8.....	125
Sub 6	8 but less than 10.....	100
Sub 7	10 but less than 12.....	92.5
Sub 8	12 but less than 15.....	85
Sub 9	15 but less than 22.5.....	70
Sub 10	22.5 but less than 30.....	65
Sub 11	30 or greater.....	60

ITEM	ARTICLE	CLASS
△176051-B	NOTE—Also applies on letters, numbers, figures or symbols not of themselves constituting complete signs.	
△176052-B	NOTE—Provisions also apply on sign faces or facings.	
176053-B	NOTE—Neon signs may also be shipped ► in Package 546.	
△176054-B	NOTE—Brackets or hangers may protrude from boxes or crates. Boom-type brackets or hangers may be in packages, or if weighing 15 pounds or greater may be loose.	
	TOBACCO, MANUFACTURED, GROUP: subject to item 183100	
183120-A	Cigarettes, Cigars or Cigarillos, ► in boxes or Package 1109, see Note, item 183121, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 6	200
Sub 2	6 but less than 10	110
Sub 3	10 or greater	85
△183121-A	NOTE—Also applies when inner containers consist of ornamental boxes.	
	TOOLS, OR PARTS NAMED: subject to item 183550	
186080-A	Sod Cutters, etc. ☒ Cancel; see items 130207 and 186620.	
△186620-A	Tools, NOI, hand, other than power, see Notes, items 186621 and 186622, in boxes, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
△186621-A	NOTE—Also applies on tools packed in tool boxes, cabinets or chests enclosed in boxes or crates.	
△186622-A	NOTE—Does not apply on toy tools. For applicable provisions, see item 84260, 'Games or Toys, NOI.'	
	TRUNKS, TRAVELING BAGS OR RELATED ARTICLES: subject to item 187600	
187620-A	Briefcases, Portfolios or Envelopes, NOI, ► in boxes	125
187645-A	Carrying Cases or Bags, viz.: Air Transport of America (ATA) Cases; Archery Bow Cases; Audio (Sound) Recording Carrying Cases; Backpack or Front-pack Baby Carriers, including Slings or Wraps; Backpacks; Bowling Ball or Bowling Shoe Bags or Cases; Boxes or Bags, lunch or picnic, NOI, with or without food or beverage containers; Camera, Camera Equipment or Film Projector Carrying Bags, Cases or Pouches; Carrying Cases or Bags, NOI; Duffel or Barracks Bags; Footlockers; Gun Carrying Cases; Handbags; Hatboxes; Haversacks; Knapsacks; Luggage, NOI; Musical Instrument Cases, NOI; Pack Carriers, NOI; Pocketbooks or Purses; Sample Cases; Suitcases; Traveling Bags; Trunks; ► In boxes, crates or Package 2213, see Note, item 187682, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
△187682-A	NOTE—Will not apply on articles of plastic film or sheeting construction having an overall thickness of $\frac{1}{8}$ inch or less exclusive of handles or closing devices. For classes on these articles, see item 20480.	

ITEM	ARTICLE	CLASS
	VEHICLES, OTHER THAN SELF-PROPELLED: subject to item 188500	
188690-A	Carriages, Strollers or Bicycle Carts or Trailers , child or baby carrying, ► in boxes, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
△189800-A	Vehicles, viz.: Automobiles , children's; Bicycles ; Scooters , children's; Tricycles , children's; Unicycles ; Vehicles , children's, NOI; Wagons , children's, NOI; Wheelbarrows , children's; In boxes or crates, see Note, item 189804, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
189804-A	NOTE—Bicycles or unicycles may be shipped ► in Package 501. Children's automobiles or tricycles may be shipped in Package 2194.	
	WASHERS; GASKETS; OR PACKING DEVICES, FORMS OR SHAPES, OTHER THAN PACKAGING: subject to item 194000	
△194120-A	Washers; Gaskets; or Packing Devices, Forms or Shapes , other than packaging; NOI, in bags, boxes or crates, or in wrapped rolls secured to wooden pallets, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 1	400
Sub 2	1 but less than 2	300
Sub 3	2 but less than 4	250
Sub 4	4 but less than 6	175
Sub 5	6 but less than 8	125
Sub 6	8 but less than 10	100
Sub 7	10 but less than 12	92.5
Sub 8	12 but less than 15	85
Sub 9	15 but less than 22.5	70
Sub 10	22.5 but less than 30	65
Sub 11	30 or greater	60
194130-A	Washers, Gaskets or Packing Devices , for maintenance or repair of internal combustion engines, mechanical power train or running gear, etc... ☒ Cancel; see item 194120.	
194132-A	NOTE—☒ Cancel; no further application.	
198200-A	Wood Flour (Pulverized Wood or Woodpulp) , ► in bags	70
200070-A	Woodpulp , charred, or Woodpulp Charcoal , not activated, etc... ☒ Cancel; see item 42445.	
200160-A	Wool , steel, NOI, ► in bags or boxes	100
200460-A	Zein , ► in bags	70

SPECIFICATIONS FOR NUMBERED PACKAGES

<input checked="" type="checkbox"/> Cancel; obsolete.	Package 97
<input checked="" type="checkbox"/> Cancel; no further application.	Package 355
<input checked="" type="checkbox"/> Cancel; no further application.	Package 759
<input checked="" type="checkbox"/> Cancel; no further application.	Package 762
<input checked="" type="checkbox"/> Cancel; no further application.	Package 773
<input checked="" type="checkbox"/> Cancel; no further application.	Package 776
<input checked="" type="checkbox"/> Cancel; no further application.	Package 788
<input checked="" type="checkbox"/> Cancel; no further application.	Package 789
<input checked="" type="checkbox"/> Cancel; no further application.	Package 794
<input checked="" type="checkbox"/> Cancel; no further application.	Package 795
<input checked="" type="checkbox"/> Cancel; no further application.	Package 801
<input checked="" type="checkbox"/> Cancel; no further application.	Package 802
<input checked="" type="checkbox"/> Cancel; no further application.	Package 814
<input checked="" type="checkbox"/> Cancel; no further application.	Package 818
<input checked="" type="checkbox"/> Cancel; no further application.	Package 825
<input checked="" type="checkbox"/> Cancel; no further application.	Package 826
<input checked="" type="checkbox"/> Cancel; no further application.	Package 827

SPECIFICATIONS FOR NUMBERED PACKAGES

Package 834☒Cancel; no further application.**Package 838**☒Cancel; no further application.**Package 841**☒Cancel; no further application.**Package 846**☒Cancel; no further application.**Package 868**☒Cancel; no further application.**Package 870**☒Cancel; no further application.**Package 881**☒Cancel; no further application.**Package 886**☒Cancel; no further application.**Package 911**☒Cancel; no further application.**Package 919**☒Cancel; no further application.**Package 932**☒Cancel; no further application.**Package 934**☒Cancel; no further application.**Package 978**☒Cancel; no further application.**Package 1029**☒Cancel; no further application.**Package 1266**☒Cancel; no further application.**Package 1306**☒Cancel; no further application.**Package 2144**☒Cancel; no further application.

SPECIFICATIONS FOR NUMBERED PACKAGES**Package 2304**☒ Cancel; no further application.**Package 2305**☒ Cancel; no further application.**Package 2332**☒ Cancel; no further application.**Package 2387**☒ Cancel; no further application.**Package 2388**☒ Cancel; no further application.**Package 2413**☒ Cancel; no further application.**Package 2508**☒ Cancel; no further application.**Package 2529**☒ Cancel; no further application.

DOCUMENTS AND GOVERNING RULES FOR TENDERING SHIPMENTS

►ITEM 250150-B

UNIFORM STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

Carrier's Pro No. (Sticker):	Date:
Pick Up Carrier's Name/SCAC:	Shipper's Bill of Lading No.:
Delivering Carrier's Name/SCAC:	PO No.:
	Load No.:

Shipper's Name:		Shipper's Contact Person:	
Address:	City:	State:	Zip:

Consignee's Name:			
Address:	City:	State:	Zip:
Consignee's Contact Person:		Consignee's Contact Phone No. or Email:	

Send freight bill to:

Company:	Contact Person:
Address, City, State, Zip:	

Freight charges are PREPAID unless marked collect. CHECK BOX IF COLLECT []

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Additional Shipment Information:	
Requested Accessorials:	
Emergency Response Contact Name & Phone No.:	
Contact to notify if problems enroute or at delivery:	

** Information provided in table below is subject to correction**

No. & Type of Handling Units	No. & Type of Individual Packages	⊕ HM	Description of Articles, Packages, Special Marks and Exceptions (See Notes 1 and 2; NMFC Item 250100)	Requires additional care or attention (Y/N; See Note 3)	NMFC Item Number & Subprovision	NMFC Class	Total Weight (Pounds)	Extreme Dimensions (inches) L x W x H

⊕ Mark "X" to designate Hazardous Materials as defined in USDOT Regulations.

NOTE (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows:

"The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

NOTE (2) Liability Limitation for loss or damage on this shipment may be applicable. See 49 U.S.C. § 14706(c)(1)(A) and (B).

NOTE (3) 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. See NMFC Item 250100.

RECEIVED: Subject to the rates and/or contracts agreed upon in writing between the carrier and the shipper otherwise to the rates, classifications, and rules published by the carrier and available to the shipper upon request. The property described, except as noted, was received in apparent good order, except that the contents of packages and their condition are not known. Carrier, either by direct service or by interline service with another carrier, will deliver the shipment as marked, consigned and destined as shown. All services to be performed by the carrier are subject to the terms and conditions of the Uniform Straight Bill of Lading found in the current issue of the National Motor Freight Classification. Shipper certifies that it has knowledge of all the terms and conditions of this bill of lading, and agrees to and accepts them for itself and any assigns.

Shipper Certification	Carrier Certification
This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, meet carrier tariff provisions, and are in proper condition for transportation according to the applicable regulations of the USDOT.	Carrier acknowledges receipt of packages as described herein and required placards, where necessary. Carrier certifies emergency response information was made available and/or carrier has the USDOT emergency response guidebook or equivalent document in the vehicle.
Signed _____ Date _____	Signed _____ Date _____
	No. & Type of Packages _____

DOCUMENTS AND GOVERNING RULES FOR TENDERING SHIPMENTS

ITEM 250150-B-Continued

UNIFORM STRAIGHT BILL OF LADING TERMS AND CONDITIONS

Sec. 1. (a) The carrier shown as transporting the property described in this bill of lading shall be liable as at common law for any loss or damage to the shipment, except as provided herein.

(b) No carrier shall be liable for any loss or damage caused by an Act of God, the public enemy, the authority of law, the act or default of the shipper, the defect or vice in the property, strikes and labor disputes, or any related causes. The burden to prove negligence is on the shipper.

(c) The shipper is responsible that the packaging of the shipment tendered to the carrier complies with the requirements of the current National Motor Freight Classification (NMFC) for the transportation of that commodity. Failure of the shipper to do so can result in the denial of a claim, in whole or in part, for loss or damage attributable to the failure to tender to the carrier properly packaged freight.

Sec. 2. (a) Unless arranged or agreed to in writing or electronically prior to shipment, the carrier is not required to deliver a shipment by a particular schedule or in time for a particular market, but will transport the shipment in the regular course of its providing transportation services. If such arrangement or agreement exists the carrier shall not be liable for any delay or default in delivery if caused by any of the conditions identified in Sec. 1 (b) above, or from a faulty or impassable highway, construction, congestion or an accident, or by the lack of capacity of a highway, bridge or ferry.

(b) When physical circumstances involving equipment or drivers arise during transit which prevent the carrier from delivering a shipment, the carrier may forward the shipment by another carrier.

Sec. 3. (a) The terms and conditions governing the filing, substantiation and processing of a claim for loss or damage are found in Items 300100 through 300107 of the NMFC. A claim must be filed with the carrier within nine months of the date of the bill of lading, and a civil action must be commenced within two years of the final disposition of the claim by the carrier. Failure to comply with either of the foregoing time limits will result in the carrier not being liable for the claim. If different or additional terms and conditions for handling a loss or damage claim are established in a written agreement between the carrier and the shipper, or in the carrier's tariff, those provisions shall govern the filing, substantiating and processing of a loss or damage claim.

(b) Claims for damage must be filed with the carrier not more than nine (9) months from the date of delivery (or in the case of export traffic, not more than nine (9) months after delivery at the port of export, or in the case of import traffic, not more than nine (9) months after pickup at the place of tender). Claims for loss must be filed with the carrier not more than nine (9) months from the date of the bill of lading.

Sec. 4. (a) If the property is stopped and held in transit upon request of the shipper, owner or party entitled to make such request, or the consignee refuses the shipment tendered for delivery by carrier or if carrier is unable to deliver the shipment, because of fault or mistake of the consignor or consignee, the carrier's liability shall then become that of a warehouseman. Carrier shall promptly attempt to provide notice, by telephonic or electronic communication as provided on the face of the bill of lading, if so indicated, to the shipper or the party, if any, designated to receive notice on this bill of lading. Storage charges, based on carrier's tariff, shall start no sooner than the next business day following the attempted notification. Storage may be, at the carrier's option, in any location that provides reasonable protection against loss or damage. The carrier may place the shipment in public storage at the owner's expense and without liability to the carrier.

(b) If the carrier does not receive disposition instructions within 24 hours from the time of the carrier's attempted telephonic or electronic notification, carrier shall advise that if it does not receive disposition instructions within five (5) days of that notification, carrier has the right to offer the shipment for sale, and carrier may sell the property under such circumstances as may be authorized by law.

(c) When perishable goods cannot be delivered and disposition instructions are not given within a time that is reasonable depending upon the nature, purpose, and circumstances of the shipment, the carrier may dispose of the property in a manner that the carrier deems best serves its disposition.

(d) Absent carrier negligence, a carrier does not bear the risk of loss or damage after unloading the shipment or tendering a trailer for consignee unload if the freight is delivered in the quantity and condition tendered to the carrier, and is in compliance with the carrier-accepted terms and conditions on the bill of lading, or in a written contract between the parties to the transportation arrangement.

Sec. 5. (a) In the event of loss or damage, when one or more articles, packages or pieces of property are tendered individually or secured or unitized for shipment under one bill of lading, and where a released value has been stated in writing by the shipper on the bill of lading or is established in the applicable carrier's tariff, the carrier's maximum liability will be determined by multiplying the released value times the weight of each individual article, package or piece lost or damaged, not on the total weight of the handling unit or the shipment.

(b) No carrier hereunder will carry or be liable in any way for any financial and commercial documents, currency, or for any articles of extraordinary value not specifically classified in the NMFC or tariffs unless an agreement in writing between the carrier and the shipper which specifically identifies and authorizes the transportation of such articles to do so and a stipulated value of the articles are endorsed on this bill of lading.

Sec. 6. Every party, whether principal or agent, who ships explosives or dangerous goods, without previous full written disclosure to the carrier of their nature, shall be liable for and indemnify the carrier against all loss or damage caused by such goods. Such goods may be warehoused at owner's risk and expense or destroyed without compensation.

►**Sec. 7.** (a) The consignor, consignee, or shipper shall be liable for the freight and other lawful charges accruing on the shipment, as billed or corrected as specified in 49 U.S.C. §13710, and carrier may require prepayment of the charges prior to delivery and refuse to give up possession at the destination until payment is made, as specified in 49 U.S.C. § 13707(a).

(b) Notwithstanding the provisions of subsection (a) above, the consignee's liability for payment of additional charges that may be found to be due after delivery shall be as specified by 49 U.S.C. §13706, except that the consignee need not provide the specified written notice to the delivering carrier if the consignee is a for-hire carrier.

(c) In compliance with the carrier's legal duties under 49 U.S.C. Section 80113, the Federal Bill of Lading Act, 49 U.S.C. Section 13708, Billing and Collecting Practices, and 49 U.S.C. Section 14706, Liability of Carriers under Receipts and Bills of Lading, the carrier has the right to inspect any shipment tendered to it for transportation.

(d) If the description of the articles, including weight or density of shipments, or other information on this bill of lading is found to be incorrect or incomplete, the freight charges must be paid based upon the articles actually shipped.

Sec. 8. (a) No agent of the shipper or other third party shall have the power to waive or vary any of the terms of this or any bill of lading, unless such waiver or variation is in writing and is specifically authorized or ratified by the shipper and the carrier.

(b) If this bill of lading is issued on the order of the shipper or its agent, with shipper and carrier authorization, in exchange or in substitution for a prior bill of lading, the signature of the shipper or its agent on the prior bill of lading, or in connection with the prior bill of lading, as to a statement of value or the election of the applicable liability shall be considered as part of and the same as if they were written on or made in connection with this bill of lading.

Sec. 9. When a written contract has been negotiated and executed by the shipper, or its agent, and the carrier for the services provided, the terms and conditions set forth in the bill of lading which are not covered in the contract, and are not in conflict with its provisions, also govern the transportation services provided for the shipment.

DOCUMENTS AND GOVERNING RULES FOR TENDERING SHIPMENTS

►ITEM 250160-A

STRAIGHT BILL OF LADING—SHORT FORM**ORIGINAL—NOT NEGOTIABLE**

Carrier's Pro No. (Sticker):	Date:
Pick Up Carrier's Name/SCAC:	Shipper's Bill of Lading No.:
Delivering Carrier's Name/SCAC:	PO No.:
	Load No.:

Shipper's Name:		Shipper's Contact Person:	
Address:	City:	State:	Zip:

Consignee's Name:			
Address:	City:	State:	Zip:
Consignee's Contact Person:		Consignee's Contact Phone No. or Email:	

Send freight bill to:

Company:	Contact Person:
Address, City, State, Zip:	

Freight charges are PREPAID unless marked collect. CHECK BOX IF COLLECT []

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Additional Shipment Information:	
Requested Accessorials:	
Emergency Response Contact Name & Phone No.:	
Contact to notify if problems enroute or at delivery:	

** Information provided in table below is subject to correction**

No. & Type of Handling Units	No. & Type of Individual Packages	⊕ HM	Description of Articles, Packages, Special Marks and Exceptions (See Notes 1 and 2; NMFC Item 250100)	Requires additional care or attention (Y/N; See Note 3)	NMFC Item Number & Subprovision	NMFC Class	Total Weight (Pounds)	Extreme Dimensions (inches) L x W x H

⊕ Mark "X" to designate Hazardous Materials as defined in USDOT Regulations.

NOTE (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows:

"The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

NOTE (2) Liability Limitation for loss or damage on this shipment may be applicable. See 49 U.S.C. § 14706(c)(1)(A) and (B).

NOTE (3) 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. See NMFC Item 250100.

NOTE (4) Bill of Lading Terms and Conditions shall be provided upon written or electronic request per 49 U.S.C. § 13710(a).

RECEIVED: Subject to the rates and/or contracts agreed upon in writing between the carrier and the shipper otherwise to the rates, classifications, and rules published by the carrier and available to the shipper upon request. The property described, except as noted, was received in apparent good order, except that the contents of packages and their condition are not known. Carrier, either by direct service or by interline service with another carrier, will deliver the shipment as marked, consigned and destined as shown. All services to be performed by the carrier are subject to the terms and conditions of the Uniform Straight Bill of Lading found in the current issue of the National Motor Freight Classification. Shipper certifies that it has knowledge of all the terms and conditions of this bill of lading, and agrees to and accepts them for itself and any assigns.

Shipper Certification	Carrier Certification
This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, meet carrier tariff provisions, and are in proper condition for transportation according to the applicable regulations of the USDOT.	Carrier acknowledges receipt of packages as described herein and required placards, where necessary. Carrier certifies emergency response information was made available and/or carrier has the USDOT emergency response guidebook or equivalent document in the vehicle.
Signed _____ Date _____	Signed _____ Date _____
	No. & Type of Packages _____

EXPLANATION OF ABBREVIATIONS AND REFERENCE MARKS

Abbreviation or Reference Mark	Explanation	Abbreviation or Reference Mark	Explanation
ASTM	ASTM International	Sec.	Section
Avdp.	Avoidupois	sq.	square
°C	degree Centigrade (Celsius)	sq. ft.	square foot; square feet
CFR	Code of Federal Regulations	sq. in.	square inch(es)
cm	centimeter(s)	STB	Surface Transportation Board
COD	Collect on Delivery	SU	Set Up
Cont'd	Continued	t/a	trading as
cu	cubic	t/d/b/a	trading and doing business as
cu. ft.	cubic foot; cubic feet	™	Trademark
DOT	Department of Transportation	UN	United Nations
d/b/a	doing business as	U.S.	United States
etc.	et cetera (and other things, or the rest; and so forth)	USC	United States Code
°F	degree Fahrenheit	viz.	namely
g	gram	vol.	volume
gal	gallon(s)	vs.	versus
in.	inch(es)	&	and
incl.	inclusive	°	degree
ISTA	International Safe Transit Association	%	percent
KD	Knocked Down	§	Section
kg	kilogram	☠	Indicates commodity or commodities may be subject to special federal regulations concerning the shipping of hazardous materials. See Item (Rule) 540 herein.
kPa	Kilopascal	►	Indicates change
L	liter	☒	Indicates cancelation of item or package
lbs.	pounds	△	Indicates that the item is being brought forward without change
m	meter(s)	★	Indicates new item, package or participating carrier
ml	milliliter(s)	Ⓐ	Addition to Index to Articles
mm	millimeter(s)	Ⓑ	Eliminate from Index to Articles
MPa	Megapascal	Ⓒ	Change in Index to Articles
NMFC	National Motor Freight Classification	Ⓔ	These provisions are subject to the expiration date as shown in Item (Rule) 535.
NMFTA	National Motor Freight Traffic Association, Inc.	①	The participation of this carrier is CANCELED; provisions of this Classification no longer apply for account of this carrier.
NOI	Not more specifically described herein	Ⓟ	Under postponement
o/a	operating as	®	Registered trade name or registered trademark
oz.	ounce(s)	⊕	Effective November 4, 2021, under authority of 49 CFR §1312.6(b)(3).
pcf	pounds per cubic foot	●	Indicates correction of printing error
psi	pounds per square inch		
qt.	quart		
RSorL	Classed the same or lower		
r.p.m.	revolutions per minute		
SCAC	Standard Carrier Alpha Code — The SCAC (alpha code) listings in this Classification represent only those carriers participating in the NMFC. For a complete listing of all assigned alpha codes, see the Directory of Standard Carrier Alpha Codes, NMF 101.		

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