

EXPLOSIVES—Continued

9	Propellant explosives, Class B, jet thrust units (dato), Class B explosives igniters, jet thrust (into), Class B explosives, or starter cartridges, jet engine, Class B explosives	10	Fireworks special, or railway torpedoes	11	Small arms ammunition	12	Primers for cannon or small arms, empty cartridge bags—black powder fuzes, empty cartridge cases, primed, empty grenades, primed, combination primers or percussion caps, toy caps, explosive cable cutters, explosive rivets	13	Percussion fuses, tracer fuses or tracers	14	Time, combination or detonating fuses Class C explosives	15	Ordinary detonant fuse, safety squibs, fuse lighters, fuse igniters, delay electric igniters, electric squibs, instantaneous fuse or igniter cord	16	Fireworks, common, highway fusee or railway fuses

¹ Explosives, class A, and explosives, class B, must not be loaded or stowed with chemical ammunition containing incendiary charges or white phosphorus either with or without bursting charges. Chemical ammunition of the same classification containing incendiary or white phosphorus may be loaded and stowed together.

² Bursters (explosive), boosters (explosive), or supplementary charges (explosive) without detonators when shipped by, to or for the Departments of the Army, Navy and Air Force of the United States Government may be stowed with any of the articles named, except those in columns 3, 4, 10, 16, 17, 18, 19, 20, 21, 22, 23 and 24.

[CGFR 52-8, 17 F.R. 6464, July 17, 1952, as amended by CGFR 53-54, 18 F.R. 8232, Dec. 16, 1953; 20 F.R. 6155, Aug. 20, 1955; CGFR 56-47, 21 F.R. 8973, Nov. 17, 1956, CGFR 57-33, 22 F.R. 8572, Oct. 29, 1957; CGFR 58-9, 23 F.R. 4839, June 28, 1958; CGFR 59-14, 24 F.R. 5271, June 30, 1959; CGFR 64-20, 29 F.R. 6971, May 23, 1964]

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Ammunition or cannon with explosive projectiles. Ammunition for cannon with gas projectiles. Ammunition for cannon with smoke projectiles. Ammunition for cannon with incendiary projectiles. Ammunition for cannon with illuminating projectiles.	Ammunition for cannon is all fixed, semi-fixed, or separate-loading ammunition fired from a cannon, mortar, gun, howitzer, or recoilless rifle as distinguished from ammunition fired from a device such as a pistol, revolver, rifle, shotgun or similar firearm. Fixed ammunition assembled in a unit consisting of the cartridge case containing the propelling charge and primer, and the projectile or shell, fused or unfused. Detonating fuzes, tracer fuzes, explosive or ignition devices, or fuze parts with explosives contained therein must not be assembled in ammunition or included in the same outside package unless shipped by, for, or to the Departments of the Army, Navy, or Air Force of the United States Government or unless of a type approved by the Interstate Commerce Commission. Each outside package must be plainly marked with the appropriate descriptive name of the contents as: "Ammunition for cannon with explosive projectiles." "Ammunition for cannon with gas projectiles." "Ammunition for cannon with smoke projectiles." "Ammunition for cannon with incendiary projectiles" or "Ammunition for cannon with illuminating projectiles."	No label required except "Ammunition for cannon with gas projectiles" loaded with a poisonous gas or liquid, Class A, and an explosive charge must bear the white "Poison gas" label.	Stowage: Magazine. Outside containers: Strong wooden or metal containers. Polyethylene containers as specified by I.C.C.
Ammunition, nonexplosives.	Nonexplosive ammunition is defined as a device which contains no explosives or other dangerous articles, such as cartridges cases, dummy or drill cartridges; empty, sand loaded or solid projectiles with or without tracer (containing not in excess of one ounce of tracer composition), empty mines, empty bombs, solid projectiles, empty torpedoes, or practice bombs. It also includes devices containing no explosives, or other dangerous articles, except installed electric squibs, primers, propellants or thermal batteries required for the activation of the device, provided that it has been proven by test that when initiated the full energy release is contained within the outside shipping container. Rotating bands should be protected against deformation by method of packing or loading.	-----	Not subject to regulations in this subpart.

Class A; dangerous explosives.

Required conditions for transportation—Continued

Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.
Not subject to regulations in this subpart.	Not subject to regulations in this subpart.	Not subject to regulations in this subpart.

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
<i>Ammunition—Projectiles, grenades, bombs, mines and torpedoes:</i>			
Explosive projectiles...	Shells, projectiles, warheads, or rocket heads, loaded with explosives or bursting charges, with or without other materials, for use in cannons, guns, tubes, mortars or other firing or launching devices.	No label required except bombs, grenades, projectiles, or other containers loaded with a poisonous gas or liquid, Class A, and an explosive charge, either boxed or unboxed must bear the white "Poison gas" label.	Stowage: Magazine or in a compartment entirely allotted for stowage of these articles, which compartment may be located: "On deck under cover." "Tween decks" or "Under deck." Outside containers: Strong wooden or metal boxes. Gross weight of a box containing more than one projectile, grenade, bomb or mine must not exceed 250 lb. Explosive projectiles, explosive torpedoes, explosive mines, or explosive bombs, exceeding 90 lbs. in weight, and explosive projectiles of not less than 4½ inches in diameter, may be shipped without being boxed only by, for, or to the Departments of the Army, Navy and Air Force of the United States Government when securely blocked and braced in accordance with methods approved by the Bureau of Explosives.
Explosive hand grenades.	Small metal or other containers designed to be thrown by hand or projected from a rifle.		
Explosive rifle grenades.	They are filled with an explosive or a liquid, gas, or solid material such as a toxic or tear gas or an incendiary or smoke producing material and a bursting charge. When shipped without explosives or bursting charges, see "Chemical ammunition, Class A or B poisons", as set forth in §§ 146.25-100 and 146.25-200. For tear gas grenades see § 146.25-300.		
Explosive bombs...	Metal or other containers filled with explosives. They are used in warfare and include aeroplane bombs and depth bombs.		
Explosive mines...	Metal or composition containers filled with high explosives.		
Explosive torpedoes...	Metal devices containing a means of propulsion and a quantity of high explosives. ICC packing regulations require that detonating fuzes, tracer fuzes, explosive or ignition devices, bouchons, or fuze parts with explosives contained therein must not be assembled in explosive projectiles, explosive grenades, explosive bombs, explosive mines, explosive torpedoes, or included in the same outside package with these articles unless shipped by, for or to the Departments of the Army, Navy, or Air Force of the U. S. Government or unless of a type approved by the Bureau of Explosives. Each outside package or each projectile, bomb, mine or torpedo that is shipped unboxed must be plainly marked with the appropriate descriptive name of the contents as: "Explosive projectile," "Explosive torpedo," "Explosive mine," "Explosive bomb," "Hand grenades" or "Rifle grenades."		

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Ammunition chemical, explosive. Includes such explosive ammunition as: gas projectiles, smoke projectiles, incendiary projectiles, illuminating projectiles, gas bombs, smoke bombs, incendiary bombs, gas grenades, smoke grenades, and incendiary grenades. Also miscellaneous apparatus, such as: cloud-gas cylinders, smoke generators, etc., used to project chemicals.	Chemical ammunition used in warfare is all kind of explosive chemical projectiles, shells, bombs, grenades, etc., loaded with toxic, tear, or other gas, smoke or incendiary agent; also such miscellaneous apparatus as cloud-gas cylinders, smoke generators, etc., that may be utilized to project chemicals. These articles must be shipped in accordance with the requirements for "Ammunition—Projectiles, grenades, bombs, mines and torpedoes."		When chemical elements of ammunition are shipped assembled with their detonating fuzes or bursting charges, they must be shipped in conformity with the regulations prescribed for "Ammunition—Projectiles, grenades, bombs, mines and torpedoes", Class A. For shipment of these articles assembled with their ignition elements or expelling charges but without detonating or bursting charges see "Fireworks, special," section 146.20-200—Table B—Class B explosives. For shipment of these articles not containing ignition elements, bursting charges, detonating fuzes, or other explosive components, see "Chemical ammunition (containing class A poisons, liquids, or gases.)" "Chemical ammunition (containing class B poisons, liquids, or gases.)" or "Chemical ammunition (containing class C poisons, liquids, gases, or solids.)" Stowage: Magazine. Outside containers: Strong wooden or metal containers. The gross weight of the outside package must not exceed 150 lb.
Ammunition for small arms with explosive bullets. Ammunition for small arms with explosive projectiles.	Fixed ammunition to be used in machine guns or similar firearms and consists of a metallic cartridge case, the primer and the propelling charge, with explosive bullet or explosive projectile, with or without detonating fuze, the component parts necessary for one firing being all in one assembly. ICC packing regulations require that detonating fuzes, tracer fuzes, explosive or ignition devices or fuze parts with explosives contained therein must not be assembled in ammunition or included in the same outside package unless shipped by, for or to the Departments of the Army, Navy, or Air Force of the U. S. Government or unless of a type approved by the Bureau of Explosives. Each outside package must be plainly marked: "Ammunition for small arms with explosive bullets," or "Ammunition for small arms with explosive projectiles."		

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Ammunition chemical, explosive. Includes such explosive ammunition as: gas projectiles, smoke projectiles, incendiary projectiles, illuminating projectiles, gas bombs, smoke bombs, incendiary bombs, gas grenades, smoke grenades, and incendiary grenades. Also miscellaneous apparatus, such as: cloud-gas cylinders, smoke generators, etc., used to project chemicals.	Chemical ammunition used in warfare is all kind of explosive chemical projectiles, shells, bombs, grenades, etc., loaded with toxic, tear, or other gas, smoke or incendiary agent; also such miscellaneous apparatus as cloud-gas cylinders, smoke generators, etc., that may be utilized to project chemicals. These articles must be shipped in accordance with the requirements for "Ammunition—Projectiles, grenades, bombs, mines and torpedoes."	-----	When chemical elements of ammunition are shipped assembled with their detonating fuses or bursting charges, they must be shipped in conformity with the regulations prescribed for "Ammunition projectiles, grenades, bombs, mines and torpedoes", Class A. For shipment of these articles assembled with their ignition elements or expelling charges but without detonating or bursting charges see "Fireworks, special," section 146.20-200—Table B—Class B explosives. For shipment of these articles not containing ignition elements, bursting charges, detonating fuses, or other explosive components, see "Chemical ammunition (containing class A poisons, liquids, or gases.)" "Chemical ammunition (containing class B poisons, liquids, or gases.)" or "Chemical ammunition (containing class C poisons, liquids, gases, or solids.)" Stowage: Magazine. Outside containers: Strong wooden or metal containers. The gross weight of the outside package must not exceed 150 lb.
Ammunition for small arms with explosive bullets. Ammunition for small arms with explosive projectiles.	Fixed ammunition to be used in machine guns or similar firearms and consists of a metallic cartridge case, the primer and the propelling charge, with explosive bullet or explosive projectile, with or without detonating fuze, the component parts necessary for one firing being all in one assembly. ICC packing regulations require that detonating fuses, tracer fuses, explosive or ignition devices or fuze parts with explosives contained therein must not be assembled in ammunition or included in the same outside package unless shipped by, for or to the Departments of the Army, Navy, or Air Force of the U. S. Government or unless of a type approved by the Bureau of Explosives. Each outside package must be plainly marked: "Ammunition for small arms with explosive bullets," or "Ammunition for small arms with explosive projectiles."	-----	Not permitted.....

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.....

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Black powder Low explosives. May include: Black blasting powder. Black pellet powder. Black rifle powder. <i>Blasting powder.</i> <i>Flash powder cartridges exceeding 72 grains each.</i> <i>Flash powder in inner units exceeding 2 ounces each.</i> <i>Flash powder sheets in bulk.</i> Low blasting explosives. <i>Rifle powder.</i> <i>Spreader cartridges exceeding 72 grains each.</i> <i>Sporting powder.</i>	Black powder and low explosives are solid explosives which can be caused to deflagrate by contact with sparks or flame such as produced by a safety fuse or an electric squib, but cannot be detonated by means of a No. 8 test blasting cap. Flash powder sheets in bulk, flash powders packed in inner units exceeding 2 ounces each, and flash powder or spreader cartridges exceeding 72 grains each are classed as low explosives. Observe "This Side Up" stowage of boxes bearing such legend. Each outside package must be plainly marked with the appropriate descriptive name of the contents as "Black powder" or "Low explosives," and may also show "Blasting," "Rifle" etc. as "Black blasting powder," "Black rifle powder," "Low blasting explosive," or "black pellet powder." Boxes with inside containers packed filling holes up must be marked "This Side Up." See various types of high explosives as described in this section.	No label required.	<p>Stowage: Magazine Outside containers: Wooden barrels or kegs (ICC-10 B) not over 200 lb. gr. wt. Metal kegs (ICC-13) not less than 7 inches long and not less than 6 1/4 lb. net wt. not over 150 lb. net wt. Bundles of metal kegs (ICC-13) firmly tied together with rope and strong burlap, canvas or similar material, securely sewed and roped, not over 100 lb. net wt. Wooden boxes: (ICC-14) WIC, not over 140 lb. gr. wt. (ICC-15A, 16A) WIC, not over 200 lb. gr. wt. Fiberboard boxes: (ICC-12H, 23F, 23H) WIC, not over 50 lb. net wt.</p>
High explosives			Not permitted.
High explosives (when containing more than 75% liquid explosive ingredient, except blasting gelatin and gelatin dynamite). High explosives (when containing not more than 75% liquid explosive ingredient). Also: (<i>Blasting gelatin</i>). (<i>Gelatin dynamite</i>).			Not permitted.

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.

Table A—Classification: Class A:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
High explosives (dynamite) (when containing not more than 30% liquid explosive ingredient).	Each outside box must be plainly marked on top and on one side or end: "High Explosives—Dangerous" except ICC-23G which must be so marked on the side or end. The top of boxes (except ICC-23G) must be marked "This Side Up." Observe "This Side Up" stowage.	No label required.	Stowage: Magazine. Outside containers: Wooden boxes (ICC-14, 15A, 16A) WIC, not over 75 lb. gr. wt. Fiberboard boxes: (ICC-23G) containing not over one cartridge, gr. wt. not over 65 lb. (ICC-12H, 23F, 23H) WIC, not over 65 lb. gr. wt. (ICC-23F, 23H) WIMC, surrounded by nitro-carbonate, not over 65 lb. gr. wt.
High explosives (when containing 10% or less of a liquid explosive ingredient).	Each outside box must be plainly marked on top and on one side or end: "High explosives—Dangerous," except ICC-23G which must be so marked on the side or end. The top of boxes (except ICC-23G) must be marked "This Side Up." Observe "This Side Up" stowage.	No label required.	Stowage: Magazine. Outside containers: Wooden boxes (ICC-14, 15A, 16A) not exceeding 140 lb. gr. wt. Fiberboard boxes (ICC-12H, 23F, 23G, 23H) WIC, not over 65 lb. gr. wt.
High explosives (containing no liquid explosive ingredient).	Each outside box must be plainly marked on top and on one side or end: "High explosives—Dangerous" except ICC-23G which must be so marked on the side or end. Each keg, drum or barrel must be marked on both ends: "High explosives—Dangerous."	No label required.	Stowage: Magazine. Outside containers: Wooden barrels or kegs (ICC-10B) not over 200 lb. gr. wt. Wooden boxes (ICC-14, 15A, 16A) WIC, not over 140 lb. gr. wt. Fiberboard boxes (ICC-12H, 23F, 23G, 23H) WIC, not over 65 lb. gr. wt.
High explosives (containing no liquid explosive ingredient nor any chloride). Amatol. Shaped charges, commercial. Soda amatol.	Each outside box must be plainly marked on top and on one side or end: "High explosives—Dangerous," except ICC-23G which must be so marked on the side or end. Each keg, drum or barrel must be marked on both ends: "High explosives—Dangerous".	No label required.	Stowage: Magazine. Outside containers: Wooden barrels or kegs (ICC-10B) not over 200 lb. gr. wt. (not permitted for "Shaped charges commercial"). Wooden boxes (ICC-14, 15A, 16A) WIC, not over 140 lb. gr. wt. Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. (ICC-12H, 23F, 23H) not over 65 lb. gr. wt. (ICC-23G) not over 65 lb. gr. wt. (Not permitted for "Shaped charge, commercial.") Amatol when cast or compressed in a block or column may also be shipped in: Steel barrels or drums (ICC-13A) not over 90 lb. gr. wt. Amatol may also be shipped in: Fiber drums (ICC-21C) net weight not to exceed 200 lb.

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
High explosives (<i>in dry condition</i>). Including: <i>Ammonium picrate.</i> <i>Cyclotri(methylenetrinitramine</i> (<i>desensitized</i>). <i>Dipicrylamine.</i> <i>Dipicryl sulfide.</i> <i>Dinitrophenylhydrazine.</i> <i>Nitroguanidine.</i> <i>Nitrourea.</i> <i>Pentolite.</i> <i>Picramide.</i> <i>Picric acid.</i> <i>Picryl chloride.</i> <i>Tetryl.</i> <i>Trinitroanisole.</i> <i>Trinitrobenzene.</i> <i>Trinitrobenzoic acid.</i> <i>Trinitro-<i>m</i>-cresol.</i> <i>Trinitrophenol.</i> <i>Trinitroresorcinol.</i> <i>Trinitrotoluene.</i> <i>Urea nitrate.</i>	Each outside box must be plainly marked on top and on one side or end: "High explosives—Dangerous." Each keg, drum or barrel must be marked on both ends: "High explosives—Dangerous."	No label required.	Stowage: Magazine Outside containers: Wooden barrels or kegs (ICC-10B) not over 200 lb. gr. wt. Wooden boxes (ICC-14, 15A, 16A) not over 50 lb. net wt. For trinitrotoluene and pentolite only, the gr. wt. must not exceed 140 lb. Fiberboard boxes (ICC-23F) not over 65 lb. gr. wt. Fiber drums (ICC-21A, 21B) not over 200 lb. net wt.
NOTE: All of the above substances (except cyclotrimethylenetrinitramine, nitrourea, pentolite, and tetryl) are exempt from specification packaging and magazine requirements when shipped as drugs, chemicals, medicines, or cosmetics in securely closed bottles of a quantity not exceeding 4 oz. in one outside package. Inside bottles must be securely cushioned to prevent breakage. Magazine requirements apply if total gross weight of shipment exceeds 2,000 pounds.	Each keg or barrel must be marked on both ends: "High explosives—Dangerous."	No label required.	Stowage: Magazine Outside containers: Wooden barrels or kegs (ICC-10B) not over 50 gal. cap. Authorized only for "Cyclotri(methylenetrinitramine, wet with 10% water". Fiber drum (ICC-21C) WIC, not over 225 lb. net dry wt. Metal barrels or drums (ICC-63) WIC, not over 300 lb. net wt.

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted	Not permitted	Not permitted
Not permitted	Not permitted	Not permitted

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation	
			Cargo vessel	
High explosives (nitrocellulose—guncotton and negative cotton—when shipped in dry condition).	Each outside box must be plainly marked on top and on one side or end—"High explosives—Dangerous."	No label required	Stowage: Magazine..... Outside containers: Wooden boxes (ICC-14, 15A, 16A) not over 75 lb. gr. wt.	
High explosives (nitro-starch when shipped in dry condition)	Each outside box must be plainly marked on top and on one side or end: "High explosives—Dangerous."	No label required	Stowage: Magazine..... Outside containers: Wooden boxes (ICC-14, 15A, 16A) not over 75 lb. gr. wt.	
High explosives (fireworks that can be exploded en masse).	Fireworks that can be exploded en masse by dropping the completed shipping package from a height of 6 feet, or by the impact of a rifle bullet if found safe for transportation.	No label required	Stowage: Magazine..... Outside containers: Wooden boxes (ICC-14, 15A, 16A) not over 140 lb. gr. wt.	
Initiating or priming explosives.	Solid explosives which can be caused to detonate, when unconfined, by contact with sparks or flame such as produced by safety fuse or an electric squib; or which can be exploded in the Bureau of Explosives' impact apparatus in more than 50% of the trials under a drop of less than 4 inches.	No label required	Stowage: Magazine..... Outside containers: Wooden boxes: (ICC-14, 15A, 16A) WIC, not over 150 lb. gr. wt.	
Blasting caps—more than 1,000.	Blasting caps are small tubes, usually made of an alloy of either copper or aluminum, or of molded plastic, closed at one end and loaded with a charge of initiating or priming explosives, Class A—Type 4, either with or without other suitable explosives. The total weight of explosives per unit shall not exceed 150 grains. Blasting caps which have been provided with a means of firing by an electric current, and sealed, are known as electric blasting caps.	No label required	Fiberboard boxes: (ICC-12H, 23F, 23H) WIC, not over 75 lb. gr. wt.	
Blasting caps with safety fuse—more than 1,000.	Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time as high explosives are being loaded. Each outside box must be plainly marked with the appropriate descriptive name of the contents as: "(number) Blasting caps—Handle carefully;" "(number) Electric blasting caps—Handle carefully;" "(number) Blasting caps with safety fuse—Handle carefully." "(number) Blasting caps with metal clad mild detonating fuse—Handle carefully."			
Electric blasting caps—more than 1,000.	In addition each box must bear the marking "Do not stow or load with any high explosive."			
Blasting caps with metal clad mild detonating fuse—more than 1,000.				
Blasting caps with metal clad mild detonating fuse—more than 1,000.				

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Boosters (explosive)	Boosters and supplementary charges consist of a casing containing a high explosive and are used to increase the intensity of explosion of the detonator of a detonating fuze.	No label required.	Stowage: Magazine..... Outside containers: Strong tight wooden or metal boxes, not over 100 lb. gr. wt. for detonating fuzes. Not over 300 lb. gr. wt. for boosters, bursters, and supplementary charges without detonators.
Bursters (explosive)	Bursters consist of a casing containing a high explosive and are used to rupture a projectile or bomb to permit release of its contents.		
Detonating fuzes, class A explosives, with or without radioactive components.	Detonating fuzes, class A, are used in the military service to detonate the high explosive bursting charges of projectiles, mines, bombs, torpedoes and grenades. In addition to a powerful detonator, they may contain several ounces of a high explosive, such as tetryl or dry nitrocellulose, all assembled in a heavy steel envelope. They may also contain a small amount of radioactive component. Radiation on the surface of any detonating fuze having a radioactive component shall not exceed 100 milliroentgens per hour.		
Detonating fuze parts containing an explosive.	Detonating fuzes that are so made and packed that they will not cause functioning of other fuzes, explosives, or explosives devices, in the same or adjacent containers are classed as class C explosives.		
Supplementary charges (explosive).	Do not stow detonating fuzes with any high explosives; and Do not load at the same time that high explosives are being loaded. Each outside container must be plainly marked "BOOSTERS (EXPLOSIVE)—HANDLE CAREFULLY" or "BURSTERS (EXPLOSIVE)—HANDLE CAREFULLY," or "DETONATING FUZES, CLASS A EXPLOSIVES—HANDLE CAREFULLY—DO NOT STORE OR LOAD WITH ANY HIGH EXPLOSIVES" or "DETONATING FUZES, CLASS A EXPLOSIVES, RADIOACTIVE—HANDLE CAREFULLY—DO NOT STORE OR LOAD WITH ANY HIGH EXPLOSIVES," or "SUPPLEMENTARY CHARGES (EXPLOSIVE)—HANDLE CAREFULLY," as the case may be.		

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Detonating primers.....	Detonating primers are devices for commercial use which contain a detonator and an additional charge of explosives, all assembled in a suitable envelope. The total weight of explosives is more than 150 grains per unit. Do not stow detonating primers with any high explosive. Do not load at the same time as high explosives are being loaded. Each outside container must be plainly marked "Detonating primers—Handle carefully."	No label required	Stowage: Magazine..... Outside containers: Wooden boxes: (ICC-14, 15A, 16A) WIC, not over 150 lb. gr. wt. Fiberboard boxes: (ICC-12H, 23F, 23H) WIC, not over 75 lb. gr. wt.
Initiating explosives (in bulk in dry condition). Initiating explosives (di-zodinitrophenol wet with not less than 40% by weight of water).	For safety in transportation these substances are packed wet with water. Therefore, observe outside containers for signs of leakage. Reject leaking containers or ones showing signs of having leaked. Do not handle these substances at the same time as high explosives are being loaded. In handling and in stowage, avoid exposure to shock, friction, heat, and open flame. Sufficient outage in outside containers must be allowed to prevent rupture of container in freezing weather, or a mixture of denatured ethyl alcohol and water may be used to prevent freezing in transit. Each outside barrel, drum, or keg must be plainly marked "Initiating Explosive—Dangerous—Do not store or load with any high explosive."	No label required	Transportation prohibited..... Stowage: Magazine..... Outside containers: Steel barrels or drums (ICC-5, 5B), WIC, not over 230 lb. net dry wt. Wooden barrels or kegs (ICC-10B), WIC not over 220 lb. net dry wt. Fiber drums (ICC-21C) WIC, not over 30 gal. cap.
Initiating explosives (fulminate of mercury wet with not less than 25% by weight of water.)	do.....	No label required	Stowage: Magazine..... Outside containers: Steel barrels or drums: (ICC-5, 5B) WIC, not over 150 lb. dry wt. (ICC-17H) STC, WIC, not over 150 lb. dry wt. Wooden barrels or kegs (ICC-10B) WIC, not over 150 lb. dry wt.
Initiating explosives (guanyl nitrosamino guanylidene hydrazine wet with not less than 30% by weight of water).	do.....	No label required	Stowage: Magazine..... Outside containers: Steel barrels or drums: (ICC-5, 5B) not over 75 lb. dry wt. (ICC-17H) STC, WIC, not over 75 lb. dry wt. Wooden barrels or kegs (ICC-10B) WIC, not over 75 lb. dry wt.
Initiating explosives (lead azide, wet with not less than 20% by weight of water).	do.....	No label required	Stowage: Magazine..... Outside containers: Steel barrels or drums: (ICC-5, 5B) WIC, not over 150 lb. dry wt. (ICC-17H) STC, WIC, not over 150 lb. dry wt. Wooden barrels or kegs (ICC-10B) WIC, not over 150 lb. dry wt.

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.
Transportation prohibited.....	Transportation prohibited.....	Transportation prohibited.
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Initiating explosives (lead styphnate, lead trinitroresorcinate—wet with not less than 20% by weight of water).	For safety in transportation these substances are packed wet with water. Therefore, observe outside containers for signs of leakage. Reject leaking containers or ones showing signs of having leaked. Do not handle these substances at the same time as high explosives are being loaded. In handling and in stowage, avoid exposure to shock, friction, heat, and open flame. Sufficient outgassing in outside containers must be allowed to prevent rupture of container in freezing weather, or a mixture of denatured ethyl alcohol and water may be used to prevent freezing in transit. Each outside barrel, drum, or keg must be plainly marked "Initiating Explosive—Dangerous—Do not store or load with any high explosive."	No label required.	Stowage: Magazine Outside containers: Steel barrels or drums: (ICC-5, 5B) WIC, not over 150 lb. dry wt. (ICC-17H) STC, WIC, not over 150 lb. dry wt. Wooden barrels or kegs (ICC-10B) WIC, not over 150 lb. dry wt.
Initiating explosives (lead mononitroresorcinate, wet with not less than 40% by weight of water).	do	No label required.	Stowage: Magazine Outside containers: Steel barrels or drums: (ICC-5, 5B) WIC, not over 100 lb. dry wt. Wooden barrels or kegs: (ICC-10B) WIC, not over 100 lb. dry wt. Fiber drums (ICC-21C) WIC polyethylene, not over 100 lb. net dry wt.
Initiating explosives (nitromannite wet with not less than 40% by weight of water).	do	No label required.	Stowage: Magazine Outside containers: Steel barrels or drums (ICC-5, 5B) WIC, not over 100 lb. net dry wt. Wooden barrels or kegs (ICC-10B) WIC, not over 100 lb. net dry wt. Fiber drums (ICC-21C) WIC polyethylene, not over 100 lb. net dry wt.
Initiating explosives (nitrosoguanidine wet with not less than 10% by weight of water).	do	No label required.	Stowage: Magazine Outside containers: Steel barrels or drums: (ICC-5, 5B) WIC, not over 75 lb. dry wt. (ICC-17H) STC, WIC, not over 75 lb. dry wt. Wooden barrels or kegs (ICC-10B) WIC, not over 75 lb. dry wt.
Initiating explosives (pentaerythrite tetranitrate, wet with not less than 40% by weight of water).	do	No label required.	Stowage: Magazine Outside containers: Steel barrels or drums (ICC-5, 5B) WIC, not over 300 lb. net dry wt. Metal drums: (ICC-17H) STC, WIC, not over 300 lb. net dry wt. Wooden barrels or kegs (ICC-10B) WIC, not over 300 lb. net dry wt.
Initiating explosives (tetrazene (guanyl nitrosoamino guanyl tetrazenes) wet with not less than 50% by weight of water).	do	No label required.	Stowage: Magazine Outside containers: Steel barrels or drums: (ICC-5, 5B) WIC, not over 75 lb. dry wt. (ICC-17H) STC, WIC, not over 75 lb. dry wt. Wooden barrels or kegs (ICC-10B) WIC, not over 75 lb. dry wt.

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Jet thrust units (jato), Class A explosives. Igniters, jet thrust (jato), Class A explosives.	Metal cylinders containing a mixture of chemicals capable of burning rapidly and producing considerable pressure. Under certain conditions the chemical fuel with which the unit is loaded may explode. Jet thrust units are designed to be ignited by an electric igniter. They are used to assist aeroplanes to take off, to propel large missiles and to drive moving targets for practice firing. Devices consisting of an electrically operated or remotely controlled igniting element and a fast-burning composition assembled in a unit for use in igniting the propelling charge of jet thrust units. Under certain conditions the burning composition may explode. ICC regulations require that igniters must not be shipped assembled in the units unless shipped by, for, or to the Departments of the Army, Navy, or Air Force of the U. S. Government. Each outside package must be plainly marked "Jet thrust units, Class A explosives" or "Igniters, jet thrust, Class A explosives," as appropriate.	No label required.	<p>Stowage: Magazine.....</p> <p>Outside containers:</p> <p>Wooden boxes or wooden boxes, fiberboard lined (ICC-14, 15A, 15B, or 16A) not over 500 lb. gr. wt.</p> <p>Jet thrust units (jato), Class A explosives, and igniters, jet thrust (jato), Class A explosives, packed or prepared for shipment in any other manner must be approved by the Commandant, U.S. Coast Guard.</p>
Propellant explosives, Class A.	Propellant explosives, Class A are solid chemicals or chemical mixtures which are designed to function by rapid combustion of successive layers, generally with little or no smoke. The combustion is controlled by composition, size, and form of grain. Propellant explosives, Class A, include some types of smokeless powder and some types of solid propellant explosives for jet thrust units, rockets or other devices. Each outside container must be plainly marked: "Propellant explosives, Class A".	No label required.	<p>Stowage: Magazine.....</p> <p>Outside containers:</p> <p>Wooden barrels or kegs (ICC-10B) not over 200 lb. gr. wt.</p> <p>Metal kegs (ICC-13) not over 150 lb. gr. wt.</p> <p>Bundles of metal kegs (ICC-13), roped, wrapped in burlap, canvas or similar materials, securely sewed or roped, not over 100 lb. net wt.</p> <p>Tight metal containers not over 200 lb. gr. wt.</p> <p>Tight wooden boxes with tight inside metal cases not over 200 lb. gr. wt.</p> <p>Wooden boxes (ICC-14, 15A, 15B, 15C) with ICC approved inside containers, not over 200 lb. gr. wt.</p> <p>Fiberboard boxes (ICC-23F, 23H) with ICC approved inside containers not over 65 lb. gr. wt.</p>

Title 46—Chapter I

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.

Table A—Classification: Class A;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Rocket ammunition with explosive projectiles.	Rocket ammunition (including guided missiles) consists of a completely assembled unit for launching from a tube, launcher, rails, trough, or other launching device, in which the propellant material is a solid propellant explosive. Such unit consists of an igniter, a rocket motor or jet thrust unit, and a warhead, either fuzed or unfuzed, containing high explosives or chemicals.	No label required except "Rocket ammunition with gas projectiles loaded with a poisonous gas or liquid, Class A, and an explosive charge must bear the white 'Poison gas' label."	Stowage: Magazine. Outside containers: Strong wooden or metal containers. Preformed fiber glass resin impregnated containers approved by ICC.
Rocket ammunition with gas projectiles.	ICC packing regulations require that detonating fuzes, tracer fuzes, explosive or ignition devices, bouchons or fuze parts with explosives contained therein, must not be assembled in ammunition or included in the same outside package unless shipped by, or to the Departments of the Army, Navy, or Air Force of the U. S. Government, or unless of a type approved by the Bureau of Explosives.		
Rocket ammunition with smoke projectiles.	Each outside package must be plainly marked with the appropriate descriptive name of the contents as: "Rocket ammunition with explosive projectiles," "Rocket ammunition with gas projectiles," "Rocket ammunition with smoke projectiles," "Rocket ammunition with incendiary projectiles," or "Rocket ammunition with illuminating projectiles."		Transportation prohibited.
Rocket ammunition with incendiary projectiles.			
Rocket ammunition with illuminating projectiles.			
<i>Unstable explosives: Explosive compositions that ignite spontaneously. Explosive compositions that undergo marked decomposition when subjected for 48 consecutive hours to a temperature of 167° F. Explosive compositions containing an ammonium salt and a chlorate.</i>			

dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.	Not permitted.	Not permitted.
Transportation prohibited.	Transportation prohibited.	Transportation prohibited.

[CGFR 52-8, 17 F.R. 6464, July 17, 1952; CGFR 52-62, 17 F.R. 11881, Dec. 31, 1952, as amended by CGFR 53-54, 18 F.R. 8232, Dec. 16, 1953; CGFR 54-16, 19 F.R. 4929, Aug. 6, 1954; CGFR 54-52, 19 F.R. 8515, Dec. 14, 1954; CGFR 55-20, 20 F.R. 4054, June 10, 1956; CGFR 57-83, 22 F.R. 8573, Oct. 29, 1957; CGFR 57-49, 22 F.R. 10060, Dec. 14, 1957; CGFR 58-48, 23 F.R. 9635, Dec. 12, 1958; CGFR 59-46, 24 F.R. 9391, Nov. 21, 1959; CGFR 60-33, 25 F.R. 5237, June 11, 1960; CGFR 61-11, 26 F.R. 3924, May 5, 1961; CGFR 61-44, 26 F.R. 11019, Nov. 23, 1961; CGFR 62-11, 27 F.R. 5282, June 5, 1962; CGFR 62-48, 27 F.R. 12134, Dec. 7, 1962; CGFR 63-19, 26 F.R. 5380, May 30, 1963; CGFR 64-20, 29 F.R. 6791, May 28, 1964; CGFR 65-52, 30 F.R. 15216, Dec. 9, 1965]

§ 146.20-200 Table B—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Ammunition for cannon with nonexplosive projectile.	Ammunition for cannon with empty projectiles, inert-loaded projectiles, solid projectiles, or without projectiles, or shell, and catapult charges exceeding 2 inches in diameter, is fixed ammunition assembled in a unit consisting of the cartridge case containing the propelling charge and primer with empty, inert-loaded, or solid projectiles, or without projectiles, which is fired from a cannon, mortar, gun, howitzer or recoilless rifle.	No label required.	Stowage: "On deck under cover." "Tween decks." "Under deck." Outside containers: Strong wooden or metal containers.
Ammunition for cannon with empty projectile.	Each outside package must be plainly marked with the appropriate descriptive name of the contents as "Ammunition for cannon with empty projectile," "Ammunition for cannon with inert-loaded projectile," "Ammunition for cannon with solid projectile," "Ammunition for cannon without projectile."	No label required.	Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes, or wooden boxes, fiberboard lined (ICC-14, 15A, 15B, 16A) not over 200 lb. gr. wt. Authorized only for U.S. Government shipments: Strong wooden or metal boxes or containers.
Ammunition for cannon with inert-loaded projectile.			
Ammunition for cannon with solid projectile.			
Ammunition for cannon without projectile.			
Explosive power devices, class B.	Explosive power devices, Class B, are devices designed to operate ejecting apparatus or other mechanisms by means of a propellant explosive, Class B, and differ from explosive power devices, Class C, in that they contain larger or more powerful propellants. The devices must not rupture on functioning and must be of a type approved by the Interstate Commerce Commission. Explosive power devices, Class B, must not be shipped with igniters assembled therein unless shipped by, for, or to the Departments of the Army, Navy, and Air Force of the United States Government. Each outside container must be plainly marked "Explosive Power Devices, Class B" and "Handle Carefully—Keep Fire Away."	No label required.	

Class B; less dangerous explosives.

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.

Table B—Classification: Class B;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
<i>Fireworks, forbidden. The following fireworks or fireworks compositions shall not be offered for transportation.</i>			Not permitted
Firecrackers, flash crackers or salutes, exceeding 12 grains of explosive content.	Fireworks or fireworks compositions described here are, for the purposes of safety in transportation, forbidden to be offered or transported because of instability or risk of premature ignition or detonation.		
Fireworks combining an explosive with a detonator or blasting cap.			
Fireworks containing an ammonium salt and a chlorate.			
Fireworks containing yellow or white phosphorus.			
Fireworks or fireworks compositions that ignite spontaneously or undergo marked decomposition when subjected for 48 consecutive hours to a temperature of 75° O. (167° F.).			
Fireworks properly condemned by the Bureau of Explosives, except properly repacked samples for laboratory examinations.			
Toy torpedoes exceeding $\frac{3}{4}$ in. diameter or containing a mixture of potassium chlorate, black antimony and sulfur exceeding 4 grains average weight of such explosive composition.			
Toy torpedoes containing a cap composed of red phosphorous and potassium chlorate exceeding $\frac{1}{4}$ grain per cap.			

less dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted	Not permitted	Not permitted

Table B—Classification: Class B;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Fireworks, special (special fireworks).	Special fireworks are manufactured articles designed primarily for the purpose of producing visible or audible pyrotechnic effects by combustion or explosion. (See Class C explosives for "Fireworks, common".) Examples are toy torpedoes, railway torpedoes, some firecrackers and salutes, exhibition display pieces, aeroplane flares, illuminating projectiles, incendiary projectiles, incendiary bombs or incendiary grenades and smoke projectiles or smoke bombs, fuzed or unfuzed and containing expelling charges but without bursting charges, flash powders in inner units not exceeding 2 ounces each, flash sheets in interior packages, flash powder or spreader cartridges containing not over 72 grains of flash powder each and flash cartridges consisting of a paper cartridge shell, small-arms primer, and flash composition, not exceeding 180 grains all assembled in one piece. Fireworks must be in a finished state, exclusive of mere ornamentation, as supplied to the retail trade and must be so constructed and packed that loose pyrotechnic composition will not be present in packages in transportation.		
Fireworks (except those otherwise described herein for which special packing requirements are given).	Each outside container shall be plainly marked: "Special Fireworks—Handle Carefully—Keep Fire Away". Do not stow in same compartment with any inflammable liquid or solid, inflammable compressed gas or combustible organic material.	Special fireworks..	<p>Stowage:</p> <p>"On deck under cover."</p> <p>"Tween decks readily accessible."</p> <p>Outside containers:</p> <p>Wooden barrels or kegs (ICC-11B) not over 500 lb. gr. wt.</p> <p>Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 500 lb. gr. wt.</p> <p>Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt. (not permitted for illuminating projectiles and aeroplane flares.)</p>
Fireworks, special (flash or spreader cartridges not exceeding 72 grains of flash powder each).do.....	Special fireworks..	<p>Stowage:</p> <p>"On deck under cover."</p> <p>"Tween decks readily accessible."</p> <p>Outside containers:</p> <p>Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 900 cartridges in 1 outside box.</p> <p>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.</p>
Fireworks, special (flash cartridges consisting of a paper cartridge shell, small arms primer and flash composition not exceeding 180 grains each, all assembled in one piece ready for firing).do.....	Special fireworks..	<p>Stowage:</p> <p>"On deck under cover."</p> <p>"Tween decks readily accessible."</p> <p>Outside containers:</p> <p>Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 144 cartridges in 1 outside box.</p> <p>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.</p>

less dangerous explosives—Continued

Table B—Classification: Class B;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Fireworks, special (flash sheets).	Each outside container will be plainly marked: "Special fireworks—Handle carefully—Keep fire away." Do not stow in same compartment with any inflammable liquid or solid, inflammable compressed gas or combustible organic material.	Special fireworks.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC not over 65 lb. gr. wt.</p>
Fireworks, special (photographic flash powder).	Fireworks must be in a finished state, exclusive of mere ornamentation, as supplied to the retail trade and must be so constructed and packed that loose pyrotechnic composition will not be present in packages in transportation. Each outside container will be plainly marked: "Special fireworks—Handle carefully—Keep fire away." Do not stow in same compartment with any inflammable liquid or solid, inflammable compressed gas or combustible organic material.	Special fireworks.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.</p>
Fireworks, special (ship distress signal).	do	Special fireworks.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIMC, not over 95 lb. gr. wt.</p>
Fireworks, special (Toy torpedoes).	Each outside package must be marked "Toy Torpedoes" in addition to the regular marking of "Special fireworks—Handle carefully—Keep fire away." Do not pack with other fireworks. Stow in an accessible location where shipment may be readily observed and with fire extinguishing equipment easily available.	Special fireworks.	<p>Stowage: "On deck under cover." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 65 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 35 lb. gr. wt.</p>
Jet thrust units (jato), Class B explosives. Igniters, jet thrust (jato), Class B explosives.	Jet thrust units (jato), Class B explosives, are metal cylinders containing a mixture of chemicals capable of burning rapidly and producing considerable pressure. Jet thrust units are designed to be ignited by an electric igniter. They are used to assist aeroplanes to take off, to propel large missiles, and to drive moving targets for practice firing. Igniters, jet thrust, are devices consisting of an electrically operated or remotely controlled igniting element and a fast-burning composition assembled in a unit for use in igniting the propelling charge of jet thrust units. Igniters must not be shipped assembled in the unit unless shipped by, for, or to the Departments of the Army, Navy, and Air Force of the United States Government. Each outside package must be plainly marked "Jet thrust units, Class B explosives" or "Igniters, jet thrust, Class B explosives," as appropriate.	No label required.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes, or wooden boxes fiberboard lined (ICC-14, 15A, 15B, 16A) not over 500 lb. gr. wt. Authorized only for Igniters, jet thrust (jato) Class B explosives: Wooden boxes: (ICC-15B) not over 200 lb. gr. wt. Fiberboard boxes: (ICC-23F) WIMC not over 75 lb. gr. wt. Jet thrust units (jato), Class B explosives, and igniters, jet thrust (jato), Class B explosives, packed or prepared for shipment in any other manner must be approved by the Commandant, U.S. Coast Guard.</p>

Title 46—Chapter I
less dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Stowage in metal lockers located: "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.	Ferry stowage (AA) "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.	Ferry stowage (BB). Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.
Stowage in metal lockers located: "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.	Ferry stowage (AA) "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.	Ferry stowage (BB). Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.
Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIMC, not over 95 lb. gr. wt.	Ferry stowage (AA) "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIMC, not over 95 lb. gr. wt.	Ferry stowage (BB). Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIMC, not over 95 lb. gr. wt.
Stowage in metal lockers located: "On deck under cover." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 65 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 35 lb. gr. wt.	Ferry stowage (AA) "On deck under cover." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 65 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 35 lb. gr. wt.	Ferry stowage (BB): Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) WIC, not over 65 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 35 lb. gr. wt.
Not permitted.	Not permitted.	Not permitted.

Table B—Classification: Class B;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Propellant explosives, Class B.	<p>Propellant explosives, Class B, are solid chemicals or solid chemical mixtures which function by rapid combustion of successive layers generally with little or no smoke. The combustion is controlled by composition, size, and form of grain. Propellant explosives, Class B, include smokeless powder for small arms, smokeless powder for cannon, smokeless powder or solid propellant for rockets, jet thrust units, or other devices.</p> <p>Black powder is not classified as a propellant explosive. (See: Black powder, § 146.20-100.)</p> <p>Propellant explosives as prepared for shipment that are sensitive to detonation are Class A explosives. (See: Propellant explosives, Class A, § 146.20-100.)</p> <p>Each outside container must be plainly marked: "Propellant Explosives, Class B."</p>	No label required.	<p>Stowage—magazine or: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat."</p> <p>Outside containers:</p> <ul style="list-style-type: none"> Wooden barrels or kegs (ICC-10B) not over 200 lb. gr. wt. Metal kegs (ICC-13) not over 160 lb. gr. wt. Bundles of metal kegs (ICC-13) roped, wrapped in burlap, canvas or similar materials, securely sewed and roped, not over 100 lb. net wt. Tight metal containers, not over 200 lb. gr. wt. Tight wooden boxes with tight inside metal cases, not over 200 lb. gr. wt. Wooden boxes (ICC-14, 15A, 15B, 15C) with ICC approved inside containers, not over 200 lb. gr. wt. Fiberboard boxes (ICC-12H, 23F, 23H) with ICC approved inside containers, not over 65 lb. gr. wt. Authorized only for grains not less than 1 inch in diameter or 3 inches in length if tightly packed and protectively coated: Wooden boxes (ICC-14, 15A, 16A) not over 200 lb. gr. wt. <p>Stowage—Magazine or: "On deck under cover." "Tween deck readily accessible."</p> <p>Outside containers:</p> <ul style="list-style-type: none"> Metal barrels or drums (IOC-5B, 6A, 6B, 6C) (17C or 17H, STC), WIC ICC-28 in metal drum or glass lined aluminum carboy, not over 12 gal. cap. Wooden boxes (ICC-15A, 15B, 15E) WIC polyethylene bottles in metal container, not over 1 gal. cap. <p>Propellant explosives (liquid) packed or prepared for shipment in any other manner must be approved by the Commandant, U.S. Coast Guard.</p>
Propellant explosives (liquid), Class B.	<p>A liquid propellant in which the fuel and oxidizer are physically or chemically combined in one form.</p> <p>Polyethylene containers are authorized only for liquids that will not react dangerously with the plastic or result in container failure.</p> <p>Containers must not be entirely filled. Sufficient interior space must be left vacant to prevent leakage or distortion of containers due to the expansion of the contents from increase of temperature during transit.</p> <p>Each outside container shall be plainly marked "Propellant Explosives (Liquid) Class B."</p>	No label required.	

less dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.	Not permitted.	Not permitted.
Not permitted.	Not permitted.	Not permitted.

Table B—Classification: Class B;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Propellant explosives (solid), Class B.	<p>Propellant explosives (solid) Class B include propellant explosives (solid) for cannon, small arms, rockets, guided missiles, or other devices. Black powder is not classified as a propellant explosive. (See: Black powder, § 146.20-100.)</p> <p>Propellant explosives as prepared for shipment that are sensitive to detonation are Class A explosives. (See: Propellant explosives, Class A, § 146.20-100.)</p> <p>Not more than 1,000 small arms primers may be included in one outside shipping container with solid propellant explosives. The inside container shall meet ICC requirements and be so packed as to prevent movement in the outside container.</p> <p>Each outside container must be plainly marked "Propellant Explosives (Solid) Class B" or "Propellant Explosives (Solid), Class B and Small-Arms Primers."</p>	No label required.	<p>Stowage—magazine or: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden barrels or kegs (ICC-10B) not over 200 lb. gr. wt. Metal kegs (ICC-13) not over 150 lb. gr. wt. Bundles of metal kegs (ICC-13) roped, wrapped in burlap, canvas or similar materials, securely sewed and roped, not over 100 lb. net wt. Tight metal containers, not over 200 lb. gr. wt. Tight wooden boxes with tight inside metal cases, not over 200 lb. gr. wt. Wooden boxes (ICC-14, 15A, 15B, 15C) with ICC approved inside containers, not over 200 lb. gr. wt. Fiberboard boxes (ICC-12B, 12H, 23F, 23H) with ICC approved inside containers, not over 65 lb. gr. wt. Fiber drum (ICC-21C) WIL, not over 225 lb. net wt. Authorized only for grains not less than 1 inch in diameter or 3 inches in length if tightly packed and protectively coated: Wooden boxes (ICC-14, 15A, 15B) not over 200 lb. gr. wt.</p>

less dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.	Not permitted.	Not permitted.

Table B—Classification: Class B;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
Propellant explosives in water (smokeless powder for cannon or small arms).	For propellant explosives shipped wet with water observe containers carefully for signs of leakage. Reject containers which are leaking or which show signs of having leaked. Each outside package must be plainly marked "Propellant explosives, Class B, in water".	No label required.	<p>Stowage—magazine or: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat."</p> <p>Outside containers: Steel barrels or drums (ICO-5, 5A, 5B, 6A, 6B, 6C) not over 55 gal. capacity. Wooden barrels or kegs (ICO-10A, 10B) not over 50 gal. capacity. Wooden boxes (ICO-15A) WIMC ICC-2F, not over 200 lb. gr. wt.</p>
Propellant explosives in water, unstable, condemned, or deteriorated (smokeless powder for cannon or small arms).	For propellant explosives shipped wet with water observe containers carefully for signs of leakage. Reject containers which are leaking or which show signs of having leaked. Each outside package must be plainly marked "Propellant explosives, Class B, in water".	No label required.	<p>Stowage—magazine or: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat."</p> <p>Outside containers: Steel barrels or drums (ICO-5, 5A, 5B, 6A, 6B, 6C) not over 55 gal. capacity. Wooden barrels or kegs (ICO-10A, 10B) not over 50 gal. capacity. Wooden boxes (ICO-15A) WIMC ICC-2F, not over 200 lb. gr. wt.</p>
Railway torpedoes-----	Railway torpedoes must be so constructed and packed that loose pyrotechnic composition will not be present in packages in transportation. Each outside container will be plainly marked "Railway Torpedoes—Handle Carefully—Keep Fire Away." Do not stow in same compartment with any inflammable liquid or solid, inflammable compressed gas or combustible organic material.	Special fireworks.	<p>Stowage: "On deck under cover." "Tween decks readily accessible."</p> <p>Outside containers: Wooden boxes (ICO-15A, 15B, 16A, 19A, or 19B) not over 125 lb. net wt. Fiberboard boxes: (ICO-12B) WIC, not over 65 lb. gr. wt. (ICO-12H, 23F, 23H) not over 65 lb. gr. wt.</p>
Rocket ammunition with empty projectiles. Rocket ammunition with inert-loaded projectiles. Rocket ammunition with solid projectiles. Rocket ammunition without projectiles.	Rocket ammunition is fixed ammunition which is fired from a tube, launcher, rails, trough, or other device, consisting of an igniter and propelling charge, commonly described as a motor, and empty projectile, inert-loaded projectile, solid projectile, or without projectile. Each outside package must be plainly marked with the appropriate descriptive name of the contents as "Rocket ammunition with empty projectiles," "Rocket ammunition with inert-loaded projectiles," "Rocket ammunition with solid projectiles," or "Rocket ammunition without projectiles."	No label required.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat."</p> <p>Outside containers: Strong wooden or metal containers.</p>

Title 46—Chapter 1

less dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.
<p>Stowage in metal lockers located: "On deck under cover" "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A or 19B) not over 125 lb. net wt. Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. (ICC-12H, 23F, 23H) not over 65 lb. gr. wt.</p>	<p>Ferry stowage (AA).....</p> <p>Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A or 19B) not over 125 lb. net wt. Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. (ICC-12H, 23F, 23H) not over 65 lb. gr. wt.</p>	<p>Ferry stowage (BB), Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A, or 19B) not over 125 lb. net wt. Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. (ICC-12H, 23F, 23H) not over 65 lb. gr. wt.</p>
Not permitted.....	Not permitted.....	Not permitted.

Table B—Classification: Class B;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
starter cartridges, jet engine, class B explosives.	Starter cartridges, jet engine, consist of plastic/rubber cases, each containing a pressed cylindrical block of propellant explosives and having in the top of the case a small plastic compartment that encloses an electric squib, small amounts of black powder, and smokeless powder, which constitutes an igniter. The starter cartridge is used to activate a mechanical starter for jet engines. Igniter wires must be short-circuited when packed for shipment. Each outside package must be plainly marked "Starter cartridges, jet engine, Class B explosives".	No label required.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes: (ICC-14, 16A, 15B, 15E, 16A) not over 200 lb. gr. wt. Fiberboard boxes: (ICC-23F) WIMO, not over 76 lb. gr. wt.</p>

less dangerous explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.	Not permitted.	Not permitted.

[CGFR 52-8, 17 F.R. 6464, July 17, 1952, as amended, CGFR 56-29, 21 F.R. 7061, Sept. 20, 1952; CGFR 57-33, 22 F.R. 8575, Oct. 29, 1957; CGFR 58-9, 23 F.R. 4845, June 28, 1958; CGFR 58-48, 23 F.R. 9636, Dec. 12, 1958; CGFR 60-38, 25 F.R. 5287, June 11, 1960; CGFR 60-70, 25 F.R. 11211, Nov. 26, 1960; CGFR 61-44, 26 F.R. 11019, Nov. 23, 1961; CGFR 62-11, 27 F.R. 5282, June 5, 1962; CGFR 62-48, 27 F.R. 12134, Dec. 7, 1962; CGFR 63-19, 28 F.R. 5880, May 30, 1963; CGFR 64-20, 29 F.R. 6791, May 23, 1964; CGFR 64-83, 29 F.R. 18164, Dec. 22, 1964; CGFR 65-52, 30 F.R. 15216, Dec. 9, 1965]

§ 146.20-300 Table C—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Actuating cartridges, explosive, fire extinguisher or valve.	Actuating cartridges, explosive, fire extinguisher or valve consist of a small metal or fiber housing containing a small amount of initiating explosive and a propellant and are used to actuate valves on remotely controlled fire extinguishers or other apparatus.	No label required.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>
Blasting caps—1,000 or less. Blasting caps with safety fuse—1,000 or less caps. Electric blasting caps—1,000 or less. Blasting caps with metal clad mild detonating fuse—1,000 or less.	Do not stow in the same compartment with inflammable liquids, inflammable solids or oxidizing materials, corrosive liquids or inflammable compressed gases. Each outside container must be plainly marked "Actuating Cartridges, Explosive, Fire Extinguisher—Handle Carefully" or "Actuating Cartridges, Explosive, Valve—Handle Carefully". Blasting caps are small tubes, usually made of an alloy of either copper or aluminum, or of molded plastic, closed at one end and loaded with a charge of initiating or priming explosives. Class A—Type 4, either with or without other suitable explosives. The total weight of explosives shall not exceed 150 grains. Blasting caps which have been provided with a means for firing by an electric current, and sealed, are known as electric blasting caps. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded. Each outside box must be plainly marked with the appropriate descriptive name of the contents as: "(number) Blasting caps—Handle carefully," "(number) Electric blasting caps—Handle carefully," "(number) Blasting caps with safety fuse—Handle carefully," "(number) Blasting caps with metal clad mild detonating fuse—Handle carefully." In addition each box must bear the marking "Do not store or load with any high explosive."		<p>Stowage: Portable magazines or metal lockers. Outside containers: Wooden boxes: (ICG-14, 15A, 16A) WIC, not over 150 lb. gr. wt. Fiberboard boxes: (ICG-12H, 23F, 23H) WIC, not over 75 lb. gr. wt. Note: Blasting caps in any quantity shall not be stowed in the same magazine with any other explosive or in any locker in which fireworks are stowed. They may be stowed in portable magazines or metal lockers provided such are located in cargo carrying compartments away from all sources of heat and in which no inflammable liquids, inflammable solids or oxidizing materials, corrosive liquids or inflammable compressed gases, are stowed.</p>

Class C; relatively safe explosives.

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Strong wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.	Ferry stowage (AA). Outside containers: Strong wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.	Ferry stowage (BB). Outside containers: Strong wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.
Not permitted.	Not permitted.	Not permitted.

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation	
			Cargo vessel	
Cordeau detonant fuse— Mild detonating fuse, metal clad. Flexible linear shaped charges, metal clad.	Cordeau detonant fuse is a fuse containing a core of pentaerythrite tetrinitrate or cyclotrimethylene trinitramine not exceeding 400 grains per linear foot, over- spun with tapes, yarns and plastics or waterproofing compounds. Wire counter- ing is permissible. Mild detonating fuses, metal clad and flexible linear shaped charges, metal clad consist of a core containing not more than 2½ grains of high explosive composition per lineal foot, clad with metal either with or without a covering of tapes, yarns, plastics or waterproofing compounds. Mild detonating fuse, metal clad, and flexible linear shaped charges, metal clad, in lengths not over 26 feet and not exceeding 15 grains per lineal foot having the individual lengths separated from adjacent lengths so that mass propagation will not occur, may be shipped as class C explosives. Do not stow in the same compartment with inflammable liquids, inflammable solids and oxidizing materials, cor- rosive liquids or inflam- mable compressed gases. Each outside container must be plainly marked "Cordeau Detonant Fuse—Handle Carefully", "Mild Detonat- ing Fuse, Metal Clad— Handle Carefully" or "Flex- ible Linear Shaped Charges, Metal Clad—Handle Care- fully" as the case may be.	No label required.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong wooden boxes not over 150 lb. gr. wt. Strong fiberboard boxes not over 75 lb. gr. wt.</p>	

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	E. R. car ferry, passenger or vehicle
<p>Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Strong wooden boxes not over 150 lb. gr. wt. Strong fiberboard boxes not over 75 lb. gr. wt.</p>	<p>Ferry stowage (AA)..... Outside containers: Strong wooden boxes not over 150 lb. gr. wt. Strong fiberboard boxes not over 75 lb. gr. wt.</p>	<p>Ferry stowage (BB) Outside containers: Strong wooden boxes not over 150 lb. gr. wt. Strong fiberboard boxes not over 75 lb. gr. wt.</p>

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Explosive auto alarms.....	Explosive auto alarms are tubular devices containing a small amount of explosive composition and igniting compound which is ignited by an electric spark. These devices must be so designed that they will neither burst nor cause external flame on functioning.	No label required.	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.
Cigarette loads.....	Cigarette loads consist of wooden pegs to which are affixed a small amount of explosive composition.	No label required.	
Trick matches.....	Trick matches consist of book matches, strike anywhere matches, or strike-on-box matches which have small amounts of explosives or pyrotechnic composition affixed to the match stem just below the match head. Cigarette loads, trick matches and trick noise makers, explosive must be of a type approved by the Interstate Commerce Commission.	No label required.	
Trick noise makers.....	Trick noise makers, explosive, consist of spheres containing a small amount of explosive composition. Do not stow in the same hold or compartment with inflammable liquids, inflammable solids or oxidizing materials, corrosive liquids or inflammable compressed gases. Each outside container shall be plainly marked "Explosive Auto Alarms—Handle Carefully" "Cigarette loads—Handle Carefully" "Trick matches—Handle Carefully" or "Trick noise makers—Handle Carefully" as appropriate.	No label required.	

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
	<p>Ferry stowage (A.A.) "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.</p>	<p>Ferry stowage (B.B.) Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.</p>

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Explosive cable cutters..	Explosive cable cutters consist of a metal device containing a knife-edged component which is propelled by a small charge of an explosive compound.	No label required..	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong wooden or metal boxes, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12H, 23F, 23H) not over 65 lb. gr. wt.
Explosive power devices, Class C.	Explosive power devices, Class C, are devices designed to drive generators or mechanical apparatus by means of propellant explosives, Class B. The devices consist of a housing with a contained propellant charge and an electric igniter or squib. The devices must be of a design approved by the Interstate Commerce Commission for this classification.	No label required.	
Explosive release devices..	Explosive release devices consist of a rod or link fitted with means for mechanical attachment to other apparatus or equipment and containing a small electrically initiated explosive charge which will break the rod or link upon functioning. These devices must be so designed that they will not function other explosive devices in the package sympathetically.	No label required.	
Starter cartridges, jet engine, Class C.	Starter cartridges, jet engine, Class C, consist of a metal, plastic and/or rubber case each containing a pressed cylindrical block of flammable solid material and having in the top of the case a small compartment that encloses an electric squib, small amount of black powder and/or smokeless powder which constitute an igniter. The starter cartridge is used to activate a mechanical starter for jet engines. Do not stow in the same compartment with inflammable liquids, inflammable solids and oxidizing materials, corrosive liquids or inflammable compressed gases. Each outside container must be plainly marked "Explosive Cable Cutters," "Explosive Power Devices, Class C," "Explosive Release Devices," or "Starter Cartridges, Jet Engine, Class C" and "Handle Carefully—Keep Fire Away."	No label required..	NOTE 1: Starter cartridges, jet engine, must have igniter wires short-circuited when packed for shipment.

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
	Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Strong wooden or metal boxes, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12H, 23F, 23H) not over 65 lb. gr. wt.	Ferry stowage (A.A)..... Outside containers: Strong wooden or metal boxes, not over 150 lb. gr. wt. Fiberboard boxes (ICC-12H, 23F, 23H) not over 65 lb. gr. wt.

Table C—Classification: Class C:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Explosive rivets.....	Metal rivets, each containing not more than 375 milligrams of explosive composition placed in one end. Do not stow in same compartment with inflammable liquids, inflammable solids or oxidizing materials, corrosive liquids or inflammable compressed gases. Each outside container will be plainly marked: "Explosive rivets."	No label required.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong metal or wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>
Fire extinguisher actuating cartridges.	Used to activate the valves on remotely controlled fire extinguishers. Do not stow in the same compartment with inflammable liquids, inflammable solids or oxidizing materials, corrosive liquids or inflammable compressed gases. Each outside container must be plainly marked "Fire Extinguisher Actuating Cartridges—Handle Carefully."	No label required.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>
Fireworks, common: Fireworks other than those specifically enumerated here are classed as special fireworks (see Class B explosives). Fireworks, common: (Colored box and cone fire, total pyrotechnic composition not to exceed 100 grams each in weight.) (Cone fountains, total pyrotechnic composition not to exceed 50 grams each in weight.) (Cylindrical fountains, total pyrotechnic composition not to exceed 75 grams each in weight. The inside tube diameter shall not exceed $\frac{3}{4}$ inch.) Helicopter type rockets, total pyrotechnic composition not to exceed 20 grams each in weight. The inside tube diameter shall not exceed $\frac{3}{4}$ inch. (Mines and shells of which the mortar is an integral part, total pyrotechnic composition not to exceed 50 grams each in weight.) Sky rockets with sticks, total pyrotechnic composition not to exceed 20 grams each in weight. The inside tube diameter shall not exceed $\frac{3}{4}$ inch. The rocket sticks must be securely fastened to the tubes.	No label required.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden barrels or kegs (ICC-11B) not over 100 lb. gr. wt. Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 100 lb. gr. wt. Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 100 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt. Firecrackers, Chinese, may also be shipped in the package in which they are imported, provided these packages consist of wooden boxes, or fiberboard boxes (ICC-12B) in good condition completely covered with strong matting, and do not weigh more than 100 lb. gr. wt.</p>	

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
<p>Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Strong metal or wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>	<p>Ferry stowage (AA): Outside containers: Strong metal or wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>	<p>Ferry stowage (BB): Outside containers: Strong metal or wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>
<p>Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Strong wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>	<p>Ferry stowage (AA): Outside containers: Strong wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>	<p>Ferry stowage (BB): Outside containers: Strong wooden boxes, not over 150 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>
	<p>Ferry stowage (AA): Outside containers: Wooden barrels or kegs (ICC-11B) not over 100 lb. gr. wt. Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 100 lb. gr. wt. Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 100 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.</p>	<p>Ferry stowage (BB): Outside containers: Wooden barrels or kegs (ICC-11B) not over 100 lb. gr. wt. Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 100 lb. gr. wt. Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 100 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.</p>

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation	
			Cargo vessel	
Fireworks, common (Continued): <i>Roman candles, not exceeding 10 balls spaced uniformly in the tube, total pyrotechnic composition not to exceed 20 grams each in weight. The inside tube diameter shall not exceed 3/8 inch.</i> <i>(Sparklers and dipped sticks, total pyrotechnic composition not to exceed 100 grams each in weight. Pyrotechnic composition containing any chlorate or perchlorate shall not exceed five grams.)</i> <i>(Wheels, total pyrotechnic composition not to exceed 60 grams in weight, for each driver unit, but there may be any number of drivers on any one wheel. The inside bore of driver tubes shall not be over 1/4 inch.)</i> <i>(Firecrackers and salutes, with casings, the external dimensions of which do not exceed one and one-half inches in length or one-quarter inch in diameter, total pyrotechnic composition not to exceed 2 grams each in weight.)</i>	Do not stow in the same compartment with any inflammable liquid or solid, inflammable compressed gas, or combustible organic material. Each outside container must be plainly marked: "Common fireworks—Handle carefully—Keep fire away." Fireworks, such as sparklers or fuses, with match tip or head, or similar igniting point or surface, must have each individual tip, head, or similar igniting point or surface entirely covered and securely protected against accidental contact or friction.			

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Flares and signalling devices: Hand signal devices. Signal flares. Smoke candles. Smoke grenades. Smoke pots. Smoke signals. Very signal cartridges.	Do not stow in the same compartment with high explosives, inflammable liquids, inflammable solids, inflammable compressed gases or combustible organic material. Smoke candles, smoke pots, smoke grenades, and smoke signals containing not more than 200 grams of pyrotechnic composition each exclusive of smoke compositions, without bursting charges, hand signal devices, very signal cartridges, and highway or railway fuses are devices designed to produce visible effects for signal purposes. Each outside container must be plainly marked: "Hand Signal Devices", "Signal Flares", "Smoke Candles", "Smoke Grenades", "Smoke Pots", "Smoke Signals", "Very Signal Cartridges" as the case may be and with the additional marking: "Handle Carefully—Keep Fire Away."	No label required.	<p>Stowage:</p> <p>"On deck under cover." "Tween decks readily accessible." "Under deck away from heat."</p> <p>Outside containers:</p> <p>Wooden boxes (ICC-15A, 15B, 16A, 19A), not over 200 lb. gr. wt.</p> <p>Wooden boxes (ICC-15C) WIMC, not over 200 lb. gr. wt.</p> <p>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.</p> <p>Mailing tubes (ICC-29) not over 5 lb. gr. wt.</p> <p>Wooden boxes (ICC-19B) not over 150 lb. gr. wt.</p> <p>Authorized for Very Signal Cartridges only:</p> <p>Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 500 lb. gr. wt.</p>

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
	<p>Ferry stowage (AA).....</p> <p>On deck under cover.</p> <p>"Tween decks readily accessible."</p> <p>Outside containers:</p> <p>Wooden boxes (ICC-15A, 15B, 16A, 19A), not over 200 lb. gr. wt.</p> <p>Wooden boxes (ICC-15C) WIMC, not over 200 lb. gr. wt.</p> <p>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.</p> <p>Mailing tubes (ICC-29) not over 5 lb. gr. wt.</p> <p>Wooden boxes (ICC-19B) not over 150 lb. gr. wt.</p> <p>Authorized for Very Signal Cartridges only:</p> <p>Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 500 lb. gr. wt.</p>	<p>Ferry stowage (BB).</p> <p>Outside containers:</p> <p>Wooden boxes (ICC-15A, 15B, 16A, 19A), not over 200 lb. gr. wt.</p> <p>Wooden boxes (ICC-15C) WIMC, not over 200 lb. gr. wt.</p> <p>Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.</p> <p>Mailing tubes (ICC-29) not over 5 lb. gr. wt.</p> <p>Wooden boxes (ICC-19B) not over 150 lb. gr. wt.</p> <p>Authorized for Very Signal Cartridges only:</p> <p>Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 500 lb. gr. wt.</p>

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Fuzes Percussion fuzes. Combination fuzes. Detonating fuzes, class C explosives. Time fuzes.	Percussion fuzes, combination fuzes, and time fuzes are devices designed to ignite powder charges of ammunition or to initiate an intermediate charge (booster) in projectiles, bombs, etc. When such fuzes are assembled with booster charges they are properly described as "detonating fuzes".	No label required.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong wooden boxes not over 150 lb. gr. wt. Fiberboard boxes (ICC-23F) not over 65 lb. gr. wt.</p> <p>For detonating fuzes, class C explosives: Strong, tight wooden or metal boxes, not over 190 lb. gr. wt. Fiberboard boxes (ICC-12H) WIC, not over 65 lbs. gr. wt.</p>
Tracer fuzes. Tracers.	Tracer fuzes and tracers are devices which are attached to projectiles and contain a slow-burning composition to show the flight of the projectiles at night.		
	Detonating fuzes, Class C explosives, are used in the military service to detonate high explosive bursting charges of projectiles, mines, bombs, torpedoes, grenades, demolition charges, and safety and arming devices. They contain a detonator and a quantity of high explosives. Additionally they may be used by the military or commercial users to transmit a detonation between two or more devices. This type detonating fuse contains either an explosive train consisting of mild detonating fuse, metal clad, igniter fuse, metal clad or similar type fuses, and any combination of one or more boosters, detonators and high explosives in a total quantity not exceeding 25 grams of explosive composition. All detonating fuses, Class C explosives, must be made and packed so that they will not cause functioning of other fuses, explosives, or other explosive devices if one of the fuses detonates in a shipping container or in adjacent containers.		
	Do not stow in the same compartment with any inflammable liquids, inflammable solids and oxidizing materials, corrosive liquids, or inflammable compressed gases.		
	Each outside box will be plainly marked with the appropriate descriptive name of the contents as: "Percussion fuzes—Handle carefully." "Combination fuzes—Handle carefully." "Detonating fuzes, Class C explosives—Handle carefully." "Time fuzes—Handle carefully." "Tracer fuzes—Handle carefully." "Tracers—Handle carefully."		

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
	<p>Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Strong wooden boxes not over 150 lb. gr. wt. Fiberboard boxes (ICC-23F) not over 65 lb. gr. wt.</p> <p>For detonating fuzes, class C explosives: Strong, tight wooden or metal boxes, not over 190 lb. gr. wt. Fiberboard boxes (ICC-12H) WIC, not over 65 lbs. gr. wt.</p>	<p>Ferry stowage (AA): Outside containers: Strong wooden boxes not over 150 lb. gr. wt. Fiberboard boxes (ICC-23F) not over 65 lb. gr. wt.</p> <p>For detonating fuzes, class C explosives: Strong, tight wooden or metal boxes, not over 190 lb. gr. wt. Fiberboard boxes (ICC-12H) WIC, not over 65 lbs. gr. wt.</p>

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Highway fuseses.....	Do not stow in the same compartment with any inflammable liquid or solid, inflammable compressed gas, or combustible, organic material. Each outside container must be plainly marked "Highway Fuseses—Handle Carefully—Keep Fire Away." Each fusee must have tip, head or similar igniting point or surface entirely covered and securely protected against accidental contact or friction.	No label required.	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 200 lb. gr. wt. Wooden boxes (ICC-15C) WIMC, not over 150 lb. gr. wt. Wooden boxes (ICC-19B) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt. Mailing tubes (ICC-29) not over 5 lb. gr. wt.
Igniter cord.....	Igniter cord consists of textile yarns and/or wire uniformly covered with a combustible chemical mixture, with or without additional textile or wire counterings, waterproofing or finishing coatings which, when ignited, burns externally at various rates according to design. Do not stow in the same compartment with inflammable liquids, inflammable solids and oxidizing materials, corrosive liquids or inflammable compressed gases. Each outside package must be plainly marked "Igniter cord."	No label required.	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong wooden barrels, strong metal containers, strong wooden boxes, not over 210 lb. gr. wt. Strong fiberboard boxes not over 65 lb. gr. wt.

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 200 lb. gr. wt. Wooden boxes (ICC-15C) WIMC, not over 200 lb. gr. wt. Wooden boxes (ICC-19B) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt. Mailing tubes (ICC-29) not over 5 lb. gr. wt.	Ferry stowage (AA). Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 200 lb. gr. wt. Wooden boxes (ICC-15C) WIMC, not over 200 lb. gr. wt. Wooden boxes (ICC-19B) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt. Mailing tubes (ICC-29) not over 5 lb. gr. wt.	Ferry stowage (BB). Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 200 lb. gr. wt. Wooden boxes (ICC-15C) WIMC, not over 200 lb. gr. wt. Wooden boxes (ICC-19B) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt. Mailing tubes (ICC-29) not over 5 lb. gr. wt.
Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong wooden barrels, strong metal containers, strong wooden boxes, not over 210 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.	Ferry stowage (AA). Outside containers: Strong wooden barrels, strong metal containers, strong wooden boxes, not over 210 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.	Ferry stowage (BB). Outside containers: Strong wooden barrels, strong metal containers, strong wooden boxes, not over 210 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Igniters: Cartridge bags, empty, with black powder igniters.	Cartridge bags, empty, with black powder igniters consist of empty bags having attached thereto an igniter composed of black powder.	No label required.	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Metal barrels or drum. Strong wooden barrels or strong wooden boxes, not over 150 lbs. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt. NOTE: Shall not be stowed in the same compartment with inflammable liquids, inflammable solids and oxidizing materials, corrosive liquids or inflammable compressed gases.
Delay electric igniters.	Delay electric igniters consist of small metal, fiberboard, or pasteboard tubes containing a wire bridge in contact with a small quantity of ignition compound. The ignition compound is in contact with or in close proximity to a short piece of safety fuse.		
Electric squibs.	Electric squibs consist of small tubes or blocks containing a small quantity of ignition compound in contact with a wire bridge.		
Fuse lighters or fuse igniters.	Fuse lighters or fuse igniters are small, cylindrical pasteboard or metal tubes containing an igniting composition in one end, the other end being open to permit insertion of safety fuse.		
Igniter fuse-metal clad.	Igniter fuse-metal clad consists of a base metal tube with a core of explosive igniter composition in quantity not exceeding 20 grains per foot.		
Igniters.	Igniters consist of fiberboard, paper, or metal tubes containing a small quantity of igniting compound which is ignited by the action of a primer, pull wire or scratch composition.		
Safety squibs.	Safety squibs are small paper tubes containing a small quantity of black powder. One end of each tube is usually twisted and tipped with sulfur. Each outside container must be plainly marked with the appropriate descriptive name of the contents.		

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers Metal barrels or drums. Strong wooden barrels or strong wooden boxes, not over 150 lbs. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt. NOTE: Shall not be stowed in the same compartment with inflammable liquids, inflammable solids and oxidizing materials, corrosive liquids or inflammable compressed gases.	Ferry stowage (A.A). Outside containers. Metal barrels or drums. Strong wooden barrels or strong wooden boxes, not over 150 lbs. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.	Ferry stowage (B.B). Outside containers. Metal barrels or drums. Strong wooden barrels or strong wooden boxes, not over 150 lbs. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, captions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Instantaneous fuse.....	Instantaneous fuse is cotton yarn impregnated with meal powder. Do not stow in the same compartment with inflammable liquids, inflammable solids and oxidizing materials, corrosive liquids or inflammable compressed gases. Each outside box will be marked: "Instantaneous fuse."	No label required	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong wooden barrels or strong wooden boxes not over 150 lb. gr. wt.
Oil well cartridges.....	Oil well cartridges are tubular devices consisting of a thin fiber, metal or composition shell containing not more than 200 grains of propellant powder and having no ignition device or element. Do not stow in the same hold or compartment with inflammable liquids, inflammable solids or oxidizing materials, corrosive liquids or inflammable compressed gases. Each outside package shall be plainly marked "Oil well cartridge—Handle carefully."	No label required	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.
Primers: Cannon primers. Combination primers. Empty cartridge cases, primed. Grenades, empty, primed. Percussion caps. Small-arms primers.	Primers are devices used to ignite the powder charges of ammunition or the black powder bursting charge of projectiles. For small arms ammunition the primers are "small arms primers" or "percussion caps." Do not stow in the same compartment with inflammable liquids, inflammable solids and oxidizing materials, corrosive liquids or inflammable compressed gases. Each outside box must be plainly marked with the appropriate descriptive name of the contents as: "Cannon primers—Handle carefully," "Combination primers—Handle carefully," "Empty cartridge cases, primed—Handle carefully," "Grenades, empty, primed—Handle carefully," "Percussion caps—Handle carefully," "Small-arms primers—Handle carefully."	No label required	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong tight wooden boxes WIC, not over 150 lb. gr. wt. Empty cartridge cases, primed, may also be shipped in strong, tight, outside fiberboard boxes. For small arms primers only: Fiberboard boxes: (ICC-12B) WIC, not over 5,000 primers in each outside container. (ICC-23H) WIC, not over 50,000 primers in each outside container.
Railway fuses.....	Do not stow in the same compartment with any inflammable liquid or solid, inflammable compressed gas, or combustible, organic material. Each outside container must be plainly marked "Railway Fuses—Handle Carefully—Keep Fire Away." Each fuse must have tip, head or similar igniting point or surface entirely covered and securely protected against accidental contact or friction.	No label required	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 200 lb. gr. wt. Wooden boxes (ICC-15C) WIMC, not over 200 lb. gr. wt. Wooden boxes (ICC-19B) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt. Mailing tubes (ICC-29) not over 5 lb. gr. wt.

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong wooden barrels or strong wooden boxes not over 150 lb. gr. wt.	Ferry stowage (AA)..... Outside containers: Strong wooden barrels or strong wooden boxes not over 150 lb. gr. wt.	Ferry stowage (BB). Outside containers: Strong wooden barrels or strong wooden boxes not over 150 lb. gr. wt.
Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.	Ferry stowage (AA)..... Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.	Ferry stowage (BB). Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.
Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.	Ferry stowage (AA)..... Outside containers: Strong tight wooden boxes WIC, not over 150 lb. gr. wt.	Ferry stowage (BB). Outside containers: Strong tight wooden boxes WIC, not over 150 lb. gr. wt.
Empty cartridge cases, primed, may also be shipped in strong, tight, outside fiberboard boxes. For small arms primers only: Fiberboard boxes: (ICC-12B) WIC, not over 5,000 primers in each outside container. (ICC-23H) WIC, not over 50,000 primers in each outside container.	Empty cartridge cases, primed, may also be shipped in strong, tight, outside fiberboard boxes. For small arms primers only: Fiberboard boxes: (ICC-12B) WIC, not over 5,000 primers in each outside container. (ICC-23H) WIC, not over 50,000 primers in each outside container.	Empty cartridge cases, primed, may also be shipped in strong, tight, outside fiberboard boxes. For small arms primers only: Fiberboard boxes: (ICC-12B) WIC, not over 5,000 primers in each outside container. (ICC-23H) WIC, not over 50,000 primers in each outside container.
Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 200 lb. gr. wt. Wooden boxes (ICC-15C) WIMC, not over 200 lb. gr. wt. Wooden boxes (ICC-19B) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt. Mailing tubes (ICC-29) not over 5 lb. gr. wt.	Ferry stowage (AA)..... Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 200 lb. gr. wt. Wooden boxes (ICC-15C) WIMC, not over 200 lb. gr. wt. Wooden boxes (ICC-19B) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt. Mailing tubes (ICC-29) not over 5 lb. gr. wt.	Ferry stowage (BB). Outside containers: Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 200 lb. gr. wt. Wooden boxes (ICC-15C) WIMC, not over 200 lb. gr. wt. Wooden boxes (ICC-19B) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt. Mailing tubes (ICC-29) not over 5 lb. gr. wt.

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Safety fuse.....	Safety fuse consists of a core of black powder overspun with yarns, water-proofing compounds, and/or tapes. Do not stow in the same compartment with inflammable liquids, inflammable solids and oxidizing materials, corrosive liquids or inflammable compressed gases. Each outside package must be plainly marked "Safety fuse."	No label required.	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Strong wooden barrels, strong metal containers, strong wooden boxes, not over 210 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>
Small-arms ammunition. Small-arms ammunition, tear gas cartridges.	Small-arms ammunition is fixed ammunition consisting of a metallic, plastic composition, or paper cartridge case, a primer, and a propelling charge, with or without bullet, shot, tear gas material, tracer components, or incendiary compositions or mixtures, but not including bullets loaded with high explosives and is further limited to the following: Ammunition designed to be fired from a pistol, revolver, rifle or shotgun held by the hand or to the shoulder. Ammunition of caliber less than 0.75 inch (19.05 millimeters) designed to be fired from machine guns. Blank cartridges, including canopy remover cartridges, starter cartridges and seat ejector cartridges, containing not more than 600 grains of propellant powder, provided that such cartridges shall be incapable of functioning en masse as a result of the functioning of any single cartridge in the container or as a result of exposure to external flame. Do not stow small-arms ammunition in any compartment in which are stowed inflammable liquids, inflammable solids or oxidizing materials or inflammable compressed gases. Each outside package will be plainly marked: "Small-arms ammunition." In addition to the above, packages containing cartridges with tear gas material will be marked "Tear gas cartridges" and will be labeled with "Tear Gas" label.	No label required.	<p>Stowage: "On deck in open." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes WIC. Fiberboard boxes WIC. Metal containers. When packed with nonexplosive or noninflammable articles, or with small arms primers or percussion caps in quantity not to exceed 5 pounds, the following weight limitations apply: Wooden boxes, not over 75 lb. net wt. Fiberboard boxes, not over 65 lb. gr. wt. Strong outside wooden boxes, fiberboard boxes or metal containers with ammunition contained in metal clips, in partitions designed to fit snugly in the outside container or in pasteboard or other inside boxes</p> <p>NOTE 1: Blank Industrial Power Load Cartridges, similar to the .22 long rim-fire cartridge, may be packed in bulk in securely closed fiberboard boxes.</p>

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
<p>Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Strong wooden barrels, strong metal containers, strong wooden boxes, not over 210 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>	<p>Ferry stowage (AA). Outside containers: Strong wooden barrels, strong metal containers, strong wooden boxes, not over 210 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>	<p>Ferry stowage (BB). Outside containers: Strong wooden barrels, strong metal containers, strong wooden boxes, not over 210 lb. gr. wt. Strong fiberboard boxes, not over 65 lb. gr. wt.</p>
<p>Stowage: "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes WIC. Fiberboard boxes WIC. Metal containers. When packed with nonexplosive or noninflammable articles, or with small arms primers or percussion caps in quantity not to exceed 5 pounds, the following weight limitations apply: Wooden boxes, not over 75 lb. net wt. Fiberboard boxes, not over 65 lb. gr. wt. Strong outside wooden boxes, fiberboard boxes or metal containers with ammunition contained in metal clips, in partitions designed to fit snugly in the outside container or in pasteboard or other inside boxes.</p> <p>NOTE 1: Blank Industrial Power Load Cartridges, similar to the .22 long rim-fire cartridge, may be packed in bulk in securely closed fiberboard boxes.</p>	<p>Ferry stowage (AA). Outside containers: Wooden boxes WIC. Fiberboard boxes WIC. Metal containers. When packed with nonexplosive or noninflammable articles, or with small arms primers or percussion caps in quantity not to exceed 5 pounds, the following weight limitations apply: Wooden boxes, not over 75 lb. net wt. Fiberboard boxes, not over 65 lb. gr. wt. Strong outside wooden boxes, fiberboard boxes or metal containers with ammunition contained in metal clips, in partitions designed to fit snugly in the outside container or in pasteboard or other inside boxes.</p> <p>NOTE 1: Blank Industrial Power Load Cartridges, similar to the .22 long rim-fire cartridge, may be packed in bulk in securely closed fiberboard boxes.</p>	<p>Ferry stowage (BB). Outside containers: Wooden boxes WIC. Fiberboard boxes WIC. Metal containers. When packed with nonexplosive or noninflammable articles, or with small arms primers or percussion caps in quantity not to exceed 5 pounds, the following weight limitations apply: Wooden boxes, not over 75 lb. net wt. Fiberboard boxes, not over 65 lb. gr. wt. Strong outside wooden boxes, fiberboard boxes or metal containers with ammunition contained in metal clips, in partitions designed to fit snugly in the outside container or in pasteboard or other inside boxes.</p> <p>NOTE 1: Blank Industrial Power Load Cartridges, similar to the .22 long rim-fire cartridge, may be packed in bulk in securely closed fiberboard boxes.</p>

Table C—Classification: Class C;

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Toy caps Toy propellant devices Toy smoke devices	Toy paper caps, consisting of paper cap ammunition for toy pistols, in sheets, strips, rolls, or individual caps, must not contain more than an average of twenty-five hundredths of a grain of explosive composition per cap and must be packed in inside packages constructed of cardboard not less than 0.018 inch in thickness, metal not less than 0.008 inch in thickness, or noncombustible plastic not less than 0.15 inch in thickness, which shall provide a complete enclosure and the minimum dimensions of each side or end of such package shall be not less than $\frac{1}{8}$ inch in height. Unless greater weight of composition is approved by the Interstate Commerce Commission, the number of caps in these inside packages shall be limited so that not more than 10 grains of explosive composition shall be packed into 1 cubic inch of space and not exceeding 17.5 grains of the explosive composition of toy caps shall be packed in any inside container. Toy propellant devices and toy smoke devices consist of small paper or composition tubes or containers containing a small charge of slow burning propellant powder or smoke producing powder. These devices must be so designed that they will neither burst nor produce external flame on functioning. Do not stow in the same compartment or hold with inflammable liquids, inflammable solids and oxidizing materials, corrosive liquids or inflammable gases. Each outside container shall be plainly marked: "Toy caps—Handle carefully", "Toy propellant devices—Handle carefully" or "Toy smoke devices—Handle carefully" as the case may be.	No label required	<p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Wooden boxes, metal lined, WIC, not over 100 lb. gr. wt. Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.</p>

relatively safe explosives—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
	<p>Ferry stowage (AA): "On deck under cover." "Tween decks readily accessible." Outside containers: Wooden boxes, metal lined, WIC, not over 100 lb. gr. wt. Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.</p>	<p>Ferry stowage (BB): Outside containers: Wooden boxes, metal lined, WIC, not over 100 lb. gr. wt. Wooden boxes (ICC-15A, 15B, 16A, 19A) not over 150 lb. gr. wt. Fiberboard boxes (ICC-12B) not over 65 lb. gr. wt.</p>

[CGFR 53-8, 17 F.R. 6464, July 17, 1952, as amended by CGFR 53-54, 18 F.R. 8233, Dec. 18, 1953; CGFR 54-16, 19 F.R. 4980, Aug. 6, 1954; CGFR 54-52, 19 F.R. 8515, Dec. 14, 1954; CGFR 55-20, 20 F.R. 4058, June 10, 1955; CGFR 56-29, 21 F.R. 7062, Sept. 20, 1956; CGFR 57-33, 22 F.R. 8577, Oct. 29, 1957; CGFR 57-49, 22 F.R. 10060, Dec. 14, 1957; CGFR 58-9, 23 F.R. 4845, June 28, 1958; CGFR 58-48, 23 F.R. 9636, Dec. 12, 1958; CGFR 59-14, 24 F.R. 5271, June 30, 1959; CGFR 59-46, 24 F.R. 9391, Nov. 21, 1959; CGFR 60-33, 25 F.R. 5237, June 11, 1960; CGFR 60-70, 25 F.R. 11211, Nov. 26, 1960; CGFR 61-11, 26 F.R. 3924, May 5, 1961; CGFR 62-11, 27 F.R. 5282, June 5, 1962; CGFR 62-48, 27 F.R. 12134, Dec. 7, 1962; CGFR 64-20, 29 F.R. 6791, May 23, 1964; CGFR 65-52, 30 F.R. 15217, Dec. 9, 1965]

Subpart 146.21—Detailed Regulations Governing Inflammable Liquids**§ 146.21-1 Definition of inflammable liquids.**

(a) An inflammable (flammable) liquid is defined by the ICC regulations as any liquid which gives off inflammable (flammable) vapors (as determined by flash point from Tagliabue's open-cup tester, as used for test of burning oils) at or below a temperature of 80° F.

(b) Such definitions are binding upon all shippers making shipments of inflammable (flammable) liquids by common carrier vessels engaged in interstate or foreign commerce by water. These definitions are accepted and adopted and form part of the regulations in this subchapter applying to all shippers making shipments of inflammable (flammable) liquids by an vessel, and shall apply to the owners, charterers, agents, master or other persons, transporting, carrying, conveying, storing, stowing or using inflammable (flammable) liquids on board any vessel subject to R.S. 4472, as amended (46 U.S.C. 170), and the regulations in this subchapter.

[CGFR 57-33, 22 F.R. 8581, Oct. 29, 1957]

§ 146.21-10 Export shipments of inflammable liquids.

Certain inflammable liquids are permitted by these regulations to be exported under shipping names differing from shipping names as required in domestic transportation. Such substances together with these "synonym" shipping names are indicated in the tables in § 146.21-100 and the "synonym" shipping names that are permitted are shown thereon. Substances shipped under these "synonym" shipping names may be accepted on board vessels that are permitted to transport such substances in export; provided the shipment otherwise conforms to the provisions of the regulations in this part. Stowage on board vessels shall be in accordance with the stowages indicated in the tables for the particular character of vessel involved.

[CGFR 51-19, 16 F.R. 7219, July 24, 1951]

§ 146.21-15 Stowage on board vessels.

(a) All inflammable liquids permitted for transportation on board vessels shall, when taken on board a vessel, be stowed in accordance with the provisions applying to the particular character of vessel as shown in the tables, § 146.21-100, and with the detailed regulations of stowage shown in this subpart.

(b) ICC specification portable tanks, not over 20,000 pounds gross weight and ICC specification tank cars and motor vehicle tank trucks approved for the commodity carried and permitted transportation on board vessels by § 146.21-100 shall be stowed in the specific location provided by § 146.21-100. The conversion table 46 CFR 146.07-40(c) does not apply.

[CGFR 51-19, 19 F.R. 7219, July 24, 1951, as amended, CGFR 63-19, 28 F.R. 5380, May 30, 1963]

§ 146.21-20 "On deck" stowage.

(a) Inflammable liquids, stowage of which is permitted "On deck" by the provisions of the table § 146.21-100 shall be properly secured, when so stowed, in a manner satisfactory to the master or other person in charge of the vessel consistent with the following conditions:

(1) Such inflammable liquid shall be so stowed as to provide safe access to the crew's quarters and to all parts of the deck required to be used in the navigation and necessary working of the vessel.

(2) Such inflammable liquids shall not be stowed within a distance in a horizontal plane of 25 feet of an operating or embarkation point of a lifeboat when such point is at the same deck level as that upon which an inflammable liquid cargo is stowed, except on a vessel which by reason of its breadth, it is impossible to provide such horizontal distance; deck stowage is permitted when the cargo is confined to only one side of the center line of the vessel.

(3) Fire plugs, sounding pipes and access to same shall be maintained free and clear of inflammable liquid cargo stowed "On deck."

(b) On passenger-carrying vessels, when limited stowage of inflammable liquid is permitted "On deck", such liquids shall be stowed well away from any deck or spaces provided for use of passengers.

(c) The fire hose at each fire hydrant on the vessel in the vicinity of inflammable liquids stowed "On deck" shall be fitted with an approved combination spray nozzle. During loading and unloading operations, the pressure shall be maintained in the fire mains. Two hand portable fire extinguishers of the dry chemical type of at least 15 pounds capacity or two portable 2½-gallon foam type extinguishers are also required and shall be located so as to be accessible in the event of fire occurring in the vicinity of such inflammable liquid cargo. Any foam used shall be of a type suitable for use with the lading.

(d) When portable tanks, tank cars and motor vehicle tank trucks containing inflammable liquids are stowed as permitted by the regulations in this subpart, the area in way of each 21,000 U.S. gallons or less of inflammable liquids shall also be protected by one or more B-V semiportable foam (40-gal. capacity) or dry chemical (100 lbs. minimum capacity) fire extinguishers, or alternatively, by a fire hose fitted with an approved portable mechanical foam nozzle with pick-up tube and two 5-gallon cans of foam liquid concentrate. When carrying commodities incompatible with the conventional foam system, the foam shall be of a type suitable for use with the lading. The fire extinguishers shall be located so as to be accessible in the event of fire occurring in the vicinity of these portable tanks.

[CGFR 51-19, 19 F.R. 7219, July 24, 1951, as amended, CGFR 63-19, 28 F.R. 5380, May 30, 1963]

§ 146.21-25 "Under deck" stowage.

(a) Stowage of inflammable liquids "Under deck" shall be either in ventilated holds or in holds that are gas-tight.

(b) Inflammable liquids that are permitted by the regulations in this subpart to be stowed in a cargo hold or a compartment on board a passenger vessel shall not be so stowed unless the compartment or hold authorized for such stowage is fitted with either an overhead water sprinkler system, inert gas or steam smothering system.

(c) Inflammable liquids permitted on passenger vessels may be stowed in a hold or compartment the overdeck of which forms a boundary of a passenger space, provided such overdeck is of an AI type of construction or in lieu thereof is fitted on its underside in way of the passenger area with three inches of incombustible insulation.

(d) Compartments or holds in which inflammable liquid cargo is to be stowed and which are fitted with electrical circuits having outlets within the compartment or hold shall have such circuits disconnected from all sources of power supply unless the fixtures within the hold are of explosion proof type, and such circuits shall not be again connected for power until the compartment or hold has been freed of any accumulation of inflammable vapors.

(e) After the stowage of inflammable liquid cargo has commenced in a compartment or hold that is not fitted with explosion proof type of electrical outlets no portable means of artificial lighting shall be used within such a compartment or hold unless such portable equipment is of the explosion proof type. Electrical connections for permitted portable lighting shall be made to outlets located outside of the compartment or hold and above the weather deck. Hand flashlights shall be of the non-sparking type.

(f) Inflammable liquids may be stowed in a compartment having a boundary bulkhead or deck which also forms a boundary to a boiler room, engine room or a coal bunker or galley provided no containers of such inflammable liquid are stowed within twenty (20) feet of such bulkhead or deck. When the amount of such inflammable liquid to be stowed in the hold exceeds the space

available the twenty (20) feet separation need not be complied with provided one or more of the following protections are provided:

(1) The bulkhead or deck is insulated with at least three (3) inches of insulation throughout its entire area subject to heat.

(2) A temporary wooden bulkhead of at least two inches thickness is constructed in the hold at least three inches off the engine room and six inches off the boiler room bulkhead and covering the entire area of the bulkhead that is subject to heat. The space between the permanent bulkhead and the temporary wooden bulkhead shall be filled full with bulk asbestos or mineral wool.

(3) A temporary wooden bulkhead constructed of one inch T and G sheathing located three feet off the boiler room or engine room bulkhead and filled with sand to a height of six feet above the tank top.

(g) Cargo compartments located "Tween decks" and having a boundary bulkhead which also forms a boundary to a boiler room, engine room, coal bunker, galley or a boiler room uptake casing may be utilized for the stowage of inflammable liquids under the conditions as outlined in paragraph (f) of this section except that the provision in paragraph (f) (3) of this section requiring filling with sand to a height of 6 feet shall be modified to provide for only 3 feet of sand.

(h) Inflammable liquids in drums or in export wooden cases having inside containers in excess of one quart capacity shall not be stowed as beam fillers. Wooden barrels, wooden boxes, and fiberboard boxes with inside containers of inflammable liquids of less than one quart capacity shall not be stowed as beam fillers unless it is possible to stow and observe "This Side Up" markings.

[CGFR 59-14, 24 F.R. 5271, June 30, 1959]

§ 146.21-30 Stowage of inflammable liquids with explosives and other dangerous articles.

The stowage of inflammable liquids with explosives and other dangerous articles shall conform to the following conditions:

(a) Inflammable liquids in any quantity shall not be stowed on deck immediately over a hold or compartment containing Class A or Class B explosives.

(b) Inflammable liquids shall not be stowed below deck or in excess of one ton on deck on a vessel carrying Class A or Class B explosives unless the engine and boiler room spaces or one complete hatch intervenes.

(c) Inflammable liquids shall not be stowed in the same hold or compartment with Class C explosives.

(d) Inflammable liquids shall not be stowed in the same hold or compartment with inflammable solids.

(e) Inflammable liquids shall not be stowed in the same hold or compartment with oxidizing materials.

(f) Inflammable liquids shall not be stowed in the same hold or compartment with corrosive liquids.

(g) Inflammable liquids in excess of one ton shall not be stowed in a hold beneath inflammable compressed gases stowed "On deck".

(h) Inflammable liquids shall not be stowed in the same hold or compartment over cylinders of non-inflammable compressed gases.

(i) Inflammable liquids shall not be stowed in the same hold or compartment with poisonous articles.

(j) Inflammable liquids shall not be stowed in the same hold or compartment with cotton, nor in the hold above or below one containing cotton.

[CGFR 59-14, 24 F.R. 5271, June 30, 1959; CGFR 60-33, 25 F.R. 5237, June 11, 1960]

§ 146.21-35 Boundary bulkheads.

Holds, with bulkheads in which cargo openings to adjacent holds are fitted, shall not be used for the stowage of inflammable liquids unless such openings are provided with means to securely close

off and make the hold gas tight or unless the adjacent hold is also used for the stowage of inflammable or combustible liquid cargo.

[CGFR 51-19, 16 F.R. 7220, July 24, 1951]

§ 146.21-40 Hatch closing means.

All unit compartments or holds used for the stowage of inflammable liquids shall be provided with full and efficient hatch covers. Tarpaulins if fitted or required to be fitted shall be protected by dunnaging before overstowing with cargo. Such tarpaulins shall be in one piece and free of rents, tears, or holes.

[CGFR 51-19, 16 F.R. 7220, July 24, 1951]

§ 146.21-45 Ventilation.

All cargo holds in which inflammable liquids are to be stowed and which are provided with means for ventilating shall, before any inflammable liquid cargo in a quantity in excess of 1 ton be stowed in such hold, have fire screens fitted at the weather end of the vent ducts. This fire screen shall consist of two layers of fine brass wire screen of at least a 20 x 20 mesh spaced not less than $\frac{1}{2}$ inch or more than $1\frac{1}{2}$ inches apart. This screen may be removable, and if so fitted, means for effectively securing the same in place when in service shall be provided. Mushroom type heads shall have similar fire screens so fitted as to completely and efficiently cover the open area. For holds that are gas tight and fitted with vent trunks such vent trunks may be efficiently blanked off at both termini in lieu of fitting flame screens. Stowage of inflammable liquids in a quantity in excess of 1 ton shall not be permitted in holds or compartments that are fitted with gooseneck type of vent trunk heads.

[CGFR 51-19, 16 F.R. 7220, July 24, 1951]

§ 146.21-50 Electrical equipment in holds.

Inflammable liquids shall not be stowed in holds or compartments in which electrical apparatus of any type except explosion proof are fitted unless

positive means for disconnecting all such electrical apparatus are provided and such control means are located outside the boundaries of said space. Electrical power lines passing through a hold that is to be used for the stowage of inflammable liquids shall have such run of cable protected by metal covering to prevent damage and possible short circuit. Such metal protection shall be substantial enough to prevent crushing by reason of cargo which might be stowed against same.

[CGFR 63-19, 28 F.R. 5380, May 30, 1963]

§ 146.21-55 Smoking prohibited, warning signs.

(a) Smoking is prohibited in the vicinity of inflammable liquid cargo stowed "On deck" and in holds in which such cargo is stowed or in the vicinity of ventilators from such holds.

(b) Signs carrying the legend

Inflammable Vapors
Keep Lights and Fire Away
No Smoking

shall be posted at each avenue of approach to inflammable liquid cargo when stowed "On deck" and in the vicinity of cargo hold ventilators when inflammable cargo is stowed in the hold. Such sign shall be painted on a white background using a bright red color for lettering. The letters shall not be less than 3 inches high.

[CGFR 51-19, 16 F.R. 7220, July 24, 1951; CGFR 65-17, 30 F.R. 7439, June 5, 1965]

§ 146.21-57 Use of power-operated industrial trucks in spaces containing flammable liquids.

(a) In a space in which packaged flammable liquids are stowed, only approved power-operated industrial trucks with a recognized testing laboratory designation of EX, EE, GS, LPS, and DS (see § 146.09-15) may be used for handling cargo including the handling of such packaged flammable liquids.

[CGFR 61-44, 26 F.R. 11019, Nov. 28, 1961]

§ 146.21-60 Potable spirits.

Potable spirits packed in strong, tight barrels, drums, casks, wooden or fiber-board boxes may, when stowed in a compartment not subject to artificial heat, be transported on board any vessel without further restriction.

[CGFR 51-19, 16 F.R. 7220, July 24, 1951]

§ 146.21-65 Limited quantity shipments.

(a) Inflammable liquids, except those enumerated in paragraph (c) of this section, in inside metal containers not over 1 quart capacity each, or in inside containers not over 1 pint or 16 ounces by weight each, packed in strong outside containers, except as otherwise provided, are exempt from specification packaging, marking other than name of contents, and labeling requirements.

(b) Such limited quantity shipments may be accepted on board vessels subject to the regulations in this part, provided the bill of lading or other shipping paper correctly describes the article and the required marking on the outside container is in accordance with the true name in the commodity list. Stowage shall be "On deck under cover" or "Tween decks" in a compartment not subject to artificial heat.

(c) The following articles in any quantity are not exempt from any of the regulations in this subpart:

- (1) Acrolein.
- (2) Acrolein, inhibited.
- (3) Aliphatic mercaptan mixtures.
- (4) Aluminum triethyl and mixtures or solutions thereof.
- (5) Aluminum trimethyl and mixtures or solutions thereof.
- (6) Amyl mercaptan.
- (7) Butyl mercaptan.
- (8) Carbon bisulfide (disulfide).
- (9) Dimethylidichlorosilane.
- (10) Ethyl chloride.
- (11) Ethyl mercaptan.
- (12) Ethyl trichlorosilane.
- (13) Ethyldichlorosilane.
- (14) Ethylene imine, inhibited.
- (15) Ethylene oxide.

(16) Inflammable (flammable) liquids which are also corrosive liquids or oxidizing materials under the regulations in this part.

- (17) Isopropyl mercaptan.
- (18) Lithium aluminum hydride (etheral).
- (19) Methyl dichlorosilane.
- (20) Methyl vinyl ketone, inhibited.
- (21) Methylchloromethyl ether, anhydrous.
- (22) Methylhydrazine.
- (23) Methyltrichlorosilane.
- (24) Nickel carbonyl.
- (25) Pentaborane.
- (26) Peroxides, organic, liquids or solutions, N.O.S.
- (27) Propyl mercaptan.
- (28) Pyroforic fuel and mixtures or solutions thereof.
- (28a) Pyroforic solutions.
- (29) Spirits of nitroglycerin exceeding one percent by weight.

(30) Trichlorosilane.

(31) Trimethylchlorosilane.

(32) Dimethylhydrazine, unsymmetrical.

(33) Vinyl trichlorosilane.

(34) Zinc ethyl.

(35) Zirconium, metallic, solutions or mixtures thereof.

(36) Methyl magnesium bromide in ethyl ether in concentrations not over 40 percent.

(37) Trisobutyl aluminum and mixtures and solutions thereof.

(38) Ethyl aluminum sesquichloride and mixtures and solutions thereof.

(39) Diethyl aluminum chloride and mixtures and solutions thereof.

(40) Ethyl aluminum dichloride and mixtures and solutions thereof.

(41) Methyl aluminum sesquichloride and mixtures and solutions thereof.

(42) Methyl aluminum sesquibromide and mixtures or solutions thereof.

[CGFR 51-19, 16 F.R. 7219, July 24, 1951 as amended by CGFR 57-33, 22 F.R. 8581, Oct. 29, 1957; CGFR 57-49, 22 F.R. 10062, Dec. 14, 1957; CGFR 58-9, 23 F.R. 4846, June 28, 1958; CGFR 58-48, 23 F.R. 9636, Dec. 12, 1958; CGFR 59-14, 24 F.R. 5271, June 30, 1959; CGFR 62-11, 27 F.R. 5282, June 5, 1962; CGFR 64-20, 29 F.R. 6791, May 23, 1964]

§ 146.21-70 Limited quantity shipments of paint products.

(a) Paint, enamel, lacquer, stain, shellac, varnish, aluminum, bronze, gold, wood filler, liquid, and lacquer base liquid and thinning, reducing and removing compounds therefor, and driers, liquid, therefor, when packed in inside glass or

earthenware containers of not over 1-quart capacity each, or metal containers not over 5 gallons capacity each, and packed in strong outside containers are exempt from specification packaging, marking other than name of contents, and labeling requirements. When fiber-board box is used for such shipments by water gross weight must not exceed 65 pounds.

(b) Such shipments may be accepted on board all vessels subject to the regulations in this part, provided the bill of lading or other shipping paper correctly describes the article in accordance with the true name as shown in the commodity list. Stowage shall be "On deck under cover" or "Tween decks" in a compartment not subject to artificial heat.

[CGFR 51-19, 16 F.R. 7221, July 24, 1951]

§ 146.21-75 Limited quantity shipments of polishes.

(a) Polishes, metal, stove, furniture and wood, liquid, when packed in inside glass or earthenware containers of not over 1 quart capacity each, or metal containers not over 5 gallons capacity each, and packed in strong outside containers are exempt from specification packaging, marking other than name of contents, and labeling requirements.

(b) Such shipments may be accepted on board all vessels subject to the regulations in this part, provided the bill of lading or other shipping paper correctly describes the article in accordance with the true name as shown in the commodity list. Stowage shall be "On deck under cover" or "Tween decks" in a compartment not subject to artificial heat.

[CGFR 51-19, 16 F.R. 7221, July 24, 1951]

§ 146.21-77 Limited quantity shipments of cements.

(a) Cements, except cements containing carbon bisulfide, when packed in glass or earthenware containers of not over 1 quart capacity each, or metal containers not over 5 gallons capacity each, and packed in strong outside containers are exempt from specification packaging, marking other than name of contents, and labeling requirements.

(b) Such shipments may be accepted on board all vessels subject to the regulations in this part, provided the bill of lading or other shipping paper correctly describes the article in accordance with the true name as shown in the commodity list. Stowage shall be "On deck under cover" or "Tween decks" in a compartment not subject to artificial heat.

[CGFR 65-52, 30 F.R. 15218, Dec. 9, 1965]

§ 146.21-79 Limited quantity shipments of inks.

(a) Inks, when packed in glass or earthenware containers of not over 1 quart capacity each, or metal containers not over 5 gallons capacity each, and packed in strong outside containers are exempt from specification packaging, marking other than name of contents, and labeling requirements.

(b) Such shipments may be accepted on board all vessels subject to the regulations in this part, provided the bill of lading or other shipping paper correctly describes the article in accordance with the true name as shown in the commodity list. Stowage shall be "On deck under cover" or "Tween decks" in a compartment not subject to artificial heat.

[CGFR 65-52, 30 F.R. 15218, Dec. 9, 1965]

§ 146.21-100 Table D—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Acetaldehyde (ethyl aldehyde).	A clear, volatile liquid with a pungent fruity odor. Will evaporate rapidly. Vapors when mixed with air are explosive over a very wide range of about 4% to 8%. Flashpoint about -17° F. Boiling point 70° F. Miscible with water. Keep cool.	Red.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each Cylindrical steel overpack: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap. Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap. Wooden boxes, (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. Authorized for stowage "On deck in open" only. Portable tanks (ICC-31) not over 20,000 lb. gr. wt. Authorized for stowage "On deck" and "First deck below": Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only). Tank cars complying with ICC regulations (trainships only).</p>

Inflammable liquids.

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.

Table D—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Acetone.....	<i>A clear, colorless, liquid having a pleasant odor somewhat similar to wood alcohol. Vapors are 8 times heavier than air and when mixed with air are explosive over a range of 2% to 15% in air. Sustained inhalation of vapors in unventilated compartments is dangerous. Flashpoint about 4° F. Boiling point 137° F. Miscible with water.</i>	Red.....	Stowage: “On deck protected.” “On deck under cover.” “Tween decks readily accessible.” Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C) STC, not over 55 gal. cap. (ICC-17E) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each. Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M (NRC),) WIC ICC 2SL, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap. Wooden barrels or kegs: (ICC-10A) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, (ICC-15A, 15B, 15C, 16A, 19A, 19B) WIC, not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Authorized for stowage “On deck in open” only: Portable tanks (ICC-51) not over 20,000 lb. gr. wt. Authorized for stowage “On deck” and “First deck below”: Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only). Tank cars complying with ICC regulations (trainships only). Cylinders as prescribed for any compressed gas except acetylene.
Acetone oils..... (When possessing a flashpoint at or below 80° F.)	<i>Oily residue obtained as a by-product in the distillation of acetone.</i>	Red.	
Acetonitrile.....	<i>Colorless, limpid liquid; aromatic odor; toxic flashpoint about 45° F.</i>	Red.	
Acrylonitrile.....	<i>Flashpoint about 38° F. Boiling point 178° F.</i>	Red.	

Inflammable liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.

Table D—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Acrolein (inhibited).....	<i>A clear greenish yellow inflammable liquid having a pungent disagreeable odor. It is irritating to the eyes and respiratory organs. It is also poisonous.</i> <i>Very soluble in water.</i> <i>Flash point about 12° F.</i> <i>Boiling point about 125° F.</i> <i>In event of leakage, flush with large quantities of water.</i> <i>Keep cool. Stow well away from living quarters and all sources of heat.</i>	Red.....	<p>Stowage: "On deck protected." "On deck under cover."</p> <p>Outside containers: Metal drums (ICC-5, 5A, 5B) not over 55 gal. cap. Wooden boxes (ICC-15A, 15B, 15C, 16A, 18A) WIC, not over 5 gal. cap. Metal drums (ICC-17C) not over 55 gal. cap.</p>

Inflammable liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.

Table D—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Alcohol, N.O.S. (When possessing a flashpoint at or below 80° F.)	General: These alcohols are colorless, volatile liquids about 80% as heavy as water and possessing a characteristic odor. Their vapors are heavier than air, and will form explosive mixtures over varying ranges of percentages with air.	Red	<p>Stowage: "On deck in open." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat."</p> <p>Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M(NRC)), WIC ICC 2SL, not over 55 gal. cap.</p> <p>Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap.</p> <p>Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap.</p> <p>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.</p> <p>Fiberboard boxes, WIC: (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. (ICC-12P) WIC ICC-2U, not over 5 gal. cap.</p> <p>Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC ICC-2S, ICC-2SL, not over 55 gal. cap.</p> <p>Cylinders as prescribed for any compressed gas except acetylene.</p> <p>Authorized for stowage "On deck in open" only.</p> <p>Portable tanks (ICC-51) not over 20,000 lb. gr. wt.</p> <p>Authorized for stowage "On deck" and "First deck below".</p> <p>Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only).</p> <p>Tank cars complying with ICC regulations (trainships only).</p> <p>Authorized only for export shipments:</p> <p>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.</p> <p>Wooden boxes WIMC (ICC-15X) not over 10 gal. cap.</p>
Butyl alcohol.		Red	
Denatured alcohol.		Red	
Ethyl alcohol.		Red	
Propyl alcohol.		Red	
Tertiary alcohol.		Red	
Wood alcohol (methanol, methyl alcohol).		Red	
Cologne spirits (alcohol).		Red	
Columbian spirits (alcohol).		Red	
Extracts, liquid flavoring.		Red	
Isopropanol.		Red	
Rum, denatured.		Red	

Inflammable liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
<p>Stowage: "On deck in open." "On deck under cover." "Tween decks readily accessible."</p> <p>Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M(NRC)), WIC ICC 2SL, not over 55 gal. cap.</p> <p>Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap.</p> <p>Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap.</p> <p>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.</p> <p>Fiberboard boxes, WIC: (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. (ICC-12P) WIC ICC-2U, not over 5 gal. cap.</p> <p>Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC ICC-2S, ICC-2SL, not over 55 gal. cap.</p> <p>Cylinders as prescribed for any compressed gas except acetylene.</p> <p>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.</p> <p>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.</p>	<p>Ferry stowage (AA):</p> <p>Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M(NRC)), WIC ICC 2SL, not over 55 gal. cap.</p> <p>Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap.</p> <p>Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap.</p> <p>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.</p> <p>Fiberboard boxes, WIC: (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. (ICC-12P) WIC ICC-2U, not over 5 gal. cap.</p> <p>Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC ICC-2S, ICC-2SL, not over 55 gal. cap.</p> <p>Cylinders as prescribed for any compressed gas except acetylene.</p> <p>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.</p> <p>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.</p>	<p>Ferry stowage (BB):</p> <p>Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M(NRC)), WIC ICC 2SL, not over 55 gal. cap.</p> <p>Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap.</p> <p>Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap.</p> <p>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.</p> <p>Fiberboard boxes, WIC: (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. (ICC-12P) WIC ICC-2U, not over 5 gal. cap.</p> <p>Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC ICC-2S, ICC-2SL, not over 55 gal. cap.</p> <p>Cylinders as prescribed for any compressed gas except acetylene.</p> <p>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.</p> <p>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.</p>

Table D—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Allyl bromide.....	Colorless heavy liquid having a pungent odor. Insoluble in water. Does not evaporate readily. Fumes somewhat irritating to eyes and tissue. Flashpoint below 80° F.	Red.....	Stowage: "On deck in open." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M(NRC)), WIC ICC 2SL, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap. Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC: (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Fiber drum (ICC-21O) WIC ICC-2S, ICC-2SL, not over 55 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. Authorized for stowage "On deck in open" only: Portable tanks (ICC-5I) not over 20,000 lb. gr. wt. Authorized for stowage "On deck" and "First deck below": Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only). Tank cars complying with ICC regulations (trainships only). Authorized only for export shipments: Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap. Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.
Amyl acetate (when possessing a flashpoint at or below 80° F.)	Colorless liquid, pear or banana like odor. Flashpoint from 70 to 90° F. Immiscible with water. A liquid having a straw to deep purple color. Flashpoint 52° F. Immiscible with water. Vapors are 5.67 times heavier than air and form an explosive mixture with a lower range of 1.4% in air.	Red.....	
Amyl chloride.....		Red.....	

Inflammable liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
	<p>Ferry stowage (AA).....</p> <p>Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. capacity each. (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M(NRC)), WIC ICC 2SL, not over 55 gal. cap.</p> <p>Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap.</p> <p>Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap.</p> <p>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.</p> <p>Fiberboard boxes, WIC: (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt.</p> <p>Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC ICC-2S, ICC-2SL, not over 55 gal. cap.</p> <p>Cylinders as prescribed for any compressed gas except acetylene.</p> <p>Ferry stowage (BB).....</p> <p>Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. capacity each. (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M(NRC)), WIC ICC 2SL, not over 55 gal. cap.</p> <p>Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap.</p> <p>Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap.</p> <p>Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap.</p> <p>Fiberboard boxes, WIC: (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt.</p> <p>Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC ICC-2S, ICC-2SL, not over 55 gal. cap.</p> <p>Cylinders as prescribed for any compressed gas except acetylene.</p> <p>Authorized only for export shipments:</p> <p>Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap.</p> <p>Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.</p>	

Table D—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Amylnitrite-----	<i>Yellowish, transparent volatile unstable liquid having fragrant fruity odor. Decomposes on exposure to air, light or water. Vapors are orange color. Boiling point, 206° F. Immiscible with water. Keep cool. Stow well away from all sources of heat.</i>	Red-----	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C) STC, not over 55 gal. cap. (ICC-17E) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each. Cylindrical steel overpack: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C, 42H) not over 55 gal. cap. Wooden barrels or kegs: (ICC-10A) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Fiber drum (ICC-21C) WIC ICC-2S, ICC-2SL, not over 55 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. Authorized for stowage "On deck in open" only: Portable tanks (ICC-51) not over 20,000 lb. gr. wt. Authorized for stowage "On deck" and "First deck below". Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only). Tank cars complying with ICC regulations (trainships only).</p>

Inflammable liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted-----	Not permitted-----	Not permitted.

Table D—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Antifreeze compounds, liquid. (When possessing a flashpoint at or below 80° F.)	Products added to the cooling systems (radiators) of automobiles, tractors, and to other mechanical systems to lower the freezing point of water. Among the common antifreezes are alcohol, glycerin, mixtures of both, and ethylene glycol. Flashpoint variable. Hazard similar to alcohol. Miscible with water.	Red	<p>Stowage: "On deck in open." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Steel barrels or drums. (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M(NRC)), WIC ICC 2SL, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap. Wooden barrels or kegs: (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 16B, 18A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC. (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 55 gal. cap. Fiber drum (ICC-21C) WIC ICC-2S, ICC-2SL, not over 55 gal. cap. Cylinders as prescribed for any compressed gas except acetylene Authorized for stowage "On deck in open" only: Portable tanks (ICC-51) not over 20,000 lb. gr. wt. Authorized for stowage "On deck" and "First deck below": Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only). Tank cars complying with ICC regulations (trainships only). Authorized only for export shipments: Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap. Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.</p>
Antifreeze preparations, proprietary, liquid. (When possessing a flashpoint at or below 80° F.)		Red	

Inflammable liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Stowage: "On deck in open." "On deck under cover." "Tween decks readily accessible." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M(NRC)), WIC ICC 2SL, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap. Wooden barrels or kegs (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 16B, 18A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Fiber drum (ICC-21C) WIC ICC-2S, ICC-2SL, not over 55 gal. cap. Cylinders as prescribed for any compressed gas except acetylene Ferry stowage (AA): Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D) WIC ICC-2S, not over 55 gal. cap. (ICC-6D, 37M(NRC)), WIC ICC 2SL, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42H) not over 55 gal. cap. Wooden barrels or kegs (ICC-10A, 10B) not over 50 gal. cap. (ICC-11A, 11B) WIC not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 16B, 18A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. (ICC-12E) WIMC not over 110 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Fiber drum (ICC-21C) WIC ICC-2S, ICC-2SL, not over 55 gal. cap. Cylinders as prescribed for any compressed gas except acetylene Authorized only for export shipments: Steel barrels or drums (ICC-17X) STC not over 55 gal. cap. Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.		

Table D—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Benzene (benzol). Benzol (benzene).	A clear, colorless liquid of aromatic odor, distilled from coal tar. Flashpoint about -18° F. Boiling point 171° F. Will freeze solid slightly above the freezing point of water. Therefore, will flash below its own freezing point. Immiscible with water. Vapors are 2.77 times heavier than air and form an explosive mixture within a range of 1.6% to 7% in air. Vapors are poisonous and suffocating.	Red.....	<p>Stowage: "On deck in open." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat."</p> <p>Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G) not over 110 gal. cap. (ICC-5M) not over 55 gal. cap. (ICO-17C) STC, not over 55 gal. cap. (ICO-17E) STC, not over 55 gal. cap. (ICC-17H, 37A) WIC of glass, not over 9 pts. cap. each. Cylindrical steel overpack: (ICC-6D) WIC ICC-28, not over 55 gal. cap. Aluminum barrels or drums: (ICO-42B, 42C) not over 110 gal. cap. (ICO-42H) not over 55 gal. cap. Wooden barrels or kegs: (ICC-10A) not over 50 gal. cap. (ICO-11A, 11B) WIC, not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC (ICO-12A, 12B) not over 65 lbs. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Cylinders as prescribed for any compressed gas except acetylene. Authorized for stowage "On deck in open" only: Portable tanks (ICC-51) not over 20,000 lb. gr. wt. Authorized for stowage "On deck" and "First deck below": Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only). Tank cars complying with ICC regulations (trainships only). Authorized only for export shipments: Steel barrels or drums (ICC-17X) STC, not over 55 gal. cap. Wooden boxes, WIMO (ICC-15X) not over 10 gal. cap.</p>
Benzine. Coal tar light oil. Petroleum ether. Petroleum naphtha Naphtha. (When possessing a flashpoint at or below 80° F.)	A mixture of several of the lighter constituents of petroleum. Flashpoint about 5° F. Boiling point 104° to 158° F. Immiscible with water. Vapors are 4 to 5 times heavier than air and form an explosive mixture within a range of 2% to 8% in air.	Red.	

Inflammable liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	Not permitted.....	Not permitted.

Table D—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Box toe gum (when possessing a flashpoint at or below 80° F.)	<i>A liquid cement-like solution of variable formulae used in the manufacture of shoes. It may consist of nitrocellulose, shellac, or rosin dissolved in a volatile solvent. Flashpoint variable, depending upon the solvent used. Immiscible with water.</i>	Red -----	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap. (ICC-5M, 6A) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-37A, 37B) STC not over 5 gal. cap. (ICC-17II, 37A) WIC of glass, not over 9 pts. cap. each (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D) WIC ICC-28, not over 55 gal. cap. (ICC-6D, 37M(NRC)) WIC ICC 28L, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42B, 42F) not over 50 gal. cap. (ICC-42E) not over 55 gal. cap. Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 16C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Fiber drum (ICC-21C) WIC ICC-28, ICC-28L, not over 55 gal. cap. Authorized for stowage "On deck in open" only. Portable tanks (ICC-51) not over 20,000 lb. gr. wt. Authorized for stowage "On deck" and "First deck below". Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only). Tank cars complying with ICC regulations (trainships only). Authorized only for export shipments. Steel barrels or drums (ICC-17X) STC not over 55 gal. cap. Wooden boxes, WIMC (ICC-15X) not over 10 gal. cap.</p>

Inflammable liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
<p>Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap. (ICC-5M, 6A) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-37A, 37B) STC not over 5 gal. cap. (ICC-17II, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D) WIC ICC-28, not over 55 gal. cap. (ICC-6D, 37M(NRC)) WIC ICC 28L, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42F) not over 50 gal. cap. (ICC-42H) not over 55 gal. cap. Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Fiber drum (ICC-21C) WIC ICC-28, ICC-28L, not over 55 gal. cap.</p>	<p>Ferry stowage (AA) ----- Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap. (ICC-5M, 6A) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-37A, 37B) STC not over 5 gal. cap. (ICC-17II, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D) WIC ICC-28, not over 55 gal. cap. (ICC-6D, 37M(NRC)) WIC ICC 28L, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42F) not over 50 gal. cap. (ICC-42H) not over 55 gal. cap. Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Fiber drum (ICC-21C) WIC ICC-28, ICC-28L, not over 55 gal. cap.</p>	<p>Ferry stowage (BB). Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C, 5G, 6B, 6C) not over 110 gal. cap. (ICC-5M, 6A) not over 55 gal. cap. (ICC-17C, 17E, 17H) STC not over 55 gal. cap. (ICC-37A, 37B) STC not over 5 gal. cap. (ICC-17II, 37A) WIC of glass, not over 9 pints capacity each. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D) WIC ICC-28, not over 55 gal. cap. (ICC-6D, 37M(NRC)) WIC ICC 28L, not over 55 gal. cap. Aluminum barrels or drums: (ICC-42B, 42C) not over 110 gal. cap. (ICC-42F) not over 50 gal. cap. (ICC-42H) not over 55 gal. cap. Wooden barrels or kegs, WIC (ICC-11A, 11B) not over 16 gal. cap. Wooden boxes, WIC (ICC-15A, 15B, 15C, 16A, 19A, 19B) not over 10 gal. total cap. Fiberboard boxes, WIC (ICC-12A, 12B) not over 65 lb. gr. wt. Fiber or plywood drums (ICC-21C, 22A, 22B) WIC not over 1 gal. cap. Fiber drum (ICC-21C) WIC ICC-28, ICC-28L, not over 55 gal. cap.</p>