

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Diffluorophosphoric acid, anhydrous.	<i>A clear colorless liquid. Fumes strongly in moist air to evolve irritating and somewhat toxic vapor. Extremely corrosive to glass and fabrics. Avoid contact with skin. Keep dry.</i>	White.	Stowage: "On deck protected." "On deck under cover." Outside containers: Aluminum drums: (ICC-42B, 42C, 42D) not over 55 gal. cap. Plywood drum (ICC-22C) WIC (ICC-2T) not over 15 gal. cap. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. Fiber drums (ICC-21C) not over 150 lb. gr. wt. For inhibited acids only: Portable tanks (ICC-40) not over 8000 lb. gr. wt. NOTE: Inside containers and packing must comply with special ICC regulations.
Hexafluorophosphoric acid.	<i>A clear, colorless liquid. Reacts violently with water to develop extremely corrosive products.</i>	White.	
Monofluorophosphoric acid, anhydrous.	<i>A clear, colorless, practically odorless liquid. Reacts strongly with water to develop corrosive products. Avoid contact with the skin. Will destroy fabrics and other organic materials. Keep dry.</i>	White.	
Di iso-octyl acid phosphate.	Toxic and corrosive.	White.	Stowage: "On deck protected." "On deck under cover." Outside containers: Metal drums (ICC-17E) STC, not over 55 gal. cap. Tank cars complying with ICC regulations.

Corrosive 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.
Not permitted.	Not permitted.	Not permitted.

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Dimethyl sulfate	<i>A heavy colorless liquid. Its vapors are extremely dangerous if inhaled, likely to be fatal. Has a powerful caustic action on the skin. Immiscible with water. Stow well away from living quarters.</i>	White	Stowage: "On deck protected." Outside containers: Steel barrels or drums: (ICC-5A, 5C) not over 55 gal. cap. (ICC-5) enclosed in strong wooden crates, not over 15 gal. cap. Wooden boxes (ICC-15A, 15B, 15C, 15A, 19A) containing one glass inside container, not over 1 quart cap, in a hermetically sealed metal can. Fiberboard boxes (ICC-12B) with not more than six inside glass containers of not over 1 qt. cap. ea. Tank cars complying with ICC regulations Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C) not over 55 gal. cap. (ICC-5F) not over 11 gal. cap. (ICC-17E) STC, not over 5 gal. cap. (ICC-17H, 37A) STO, WIC, not over 55 gal. cap. Wooden boxes (ICC-15A, 16B) WIC, not over 200 lb. gr. wt. Cylinders as prescribed for any compressed gas except acetylene. Tank cars complying with ICC regulations. Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C) not over 55 gal. cap. (ICC-5F) not over 11 gal. cap. (ICC-17E) STC, not over 5 gal. cap. (ICC-17H, 37A) STC, WIC, not over 55 gal. cap. Wooden boxes (ICC-15A, 16B) WIC, not over 200 lb. gr. wt. Cylinders as prescribed for any gas except acetylene. Tank cars complying with ICC regulations.
Diphenyl dichlorosilane	<i>A colorless liquid with a sharp penetrating odor. Fumes strongly in moist air to develop extremely corrosive products. Avoid breathing fumes which are irritating and dangerous. In event of leakage remove container and flush with large quantities of water.</i>	White	
Dodecyl trichlorosilane	<i>A water-white liquid with a pungent irritating odor. Somewhat combustible. Fumes readily in moist air to evolve corrosive and irritating vapors. In event of spillage, flush with large quantities of water.</i>	White	

Corrosive 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
Not permitted	Not permitted	Not permitted
Not permitted	Not permitted	Not permitted

Table F—Classification:

Descriptive name of article	Characteristic properties, captions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Drugs, chemicals, medicines, or cosmetics, N. O. S. When packed in accordance with ICC requirements for the particular substance and separated and cushioned by incombustible absorbent material when the characteristics of the substance so require. See §146.23-30 for limited quantity shipments.	A unit substance or a compound classified as a corrosive liquid in accordance with the definition contained herein, when prepared, packed, and offered to the trade as drugs, chemicals, medicines or cosmetics.	White.....	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible."</p> <p>Outside containers: Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Steel barrels or drums (ICC-5A) not over 110 gal. cap. Steel barrels or drums (ICC-5C) not over 110 gal. cap. Monel drums (ICC-5M) not over 65 gal. cap. Metal barrels or drums: (ICC-17H, 37A, 37B) STC, lined, not over 65 gal. cap. (ICC-37P) NRC, not over 8 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5E) not over 110 gal. cap. Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 60 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap. (See note in columns 5, 6, and 7.)</p>

Corrosive liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." <p>Outside containers: Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Steel barrels or drums (ICC-5A) not over 110 gal. cap. Steel barrels or drums (ICC-5C) not over 110 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Metal barrels or drums: (ICC-17H, 37A, 37B) STC, lined, not over 65 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. Metal drums, rubber-lined (ICC-6D) not over 110 gal. cap. Metal drums (ICC-17O, 17E, 17F) STC, not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Cylindrical steel overpack: (ICC-6L, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 60 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.</p>	Ferry stowage (AA) Outside containers: Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Steel barrels or drums (ICC-5A) not over 110 gal. cap. Steel barrels or drums (ICC-5C) not over 110 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Metal barrels or drums: (ICC-17H, 37A, 37B) STC, lined, not over 65 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. Metal drums, rubber-lined (ICC-6D) not over 110 gal. cap. Metal drums (ICC-17O, 17E, 17F) STC, not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Cylindrical steel overpack: (ICC-6L, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 60 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.	Ferry stowage (BB) Outside containers: Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Steel barrels or drums (ICC-5A) not over 110 gal. cap. Steel barrels or drums (ICC-5C) not over 110 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Metal barrels or drums: (ICC-17H, 37A, 37B) STC, lined, not over 65 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. Metal drums, rubber-lined (ICC-6D) not over 110 gal. cap. Metal drums (ICC-17O, 17E, 17F) STC, not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Cylindrical steel overpack: (ICC-6L, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 60 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.

Note: Specification containers shall be of a design and constructed of materials that will not react dangerously with nor be decomposed by the chemical packed therein.

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation	
			Cargo vessel	
Electrolyte (acid) or corrosive battery fluid. Note: Electrolyte (acid) must not be over 47% strength (39° Baume).	Electrolyte acid is a term commonly applied to dilute sulfuric acid used in electric storage batteries. This acid generates heat when mixed with water. Will char organic material. Miscible with water. Do not stow with combustible materials. Observe closely for signs of leakage and reject packages which are leaking or show signs of having leaked.	White.....	<p>Stowage: "On deck in open." "On deck under cover." "Tween decks." Outside containers: Carboys, boxed, (ICC-1A) glass only, not over 13 gal. cap. Carboys in kegs (ICC-1C) glass only, not over 13 gal. cap. Carboys, boxed, glass (ICC-1D, 1E) not over 6½ gal. cap. Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap. Steel barrels or drums: (ICC-5H) lead-lined, not over 110 gal. cap. (ICC-5D) rubber-lined, not over 110 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S, not over 35 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Fiberboard boxes (ICC-12A, 12B, 12C) WIC, not over 65 lb. gr. wt. Fiberboard box (ICC-12B) WIC plastic bags, not over 5 gal. total cap. Plywood drums (ICC-22A, 22B) WIC of glass not over 1 gal. cap. Portable tanks, lined (ICC-60) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations. For export shipment only: Carboys, glass, in plywood drums (ICC-1EX) not over 6½ gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Jugs in tubs (ICC-31) not over 2 gal. each and limited to 1 jug in each tub.</p>	
Electrolyte (acid) or alkaline corrosive battery fluid packed with storage batteries.	Electric storage batteries in specification outside wooden or fiberboard boxes having inside containers of electrolyte packed in the same outside case. Note: Must be packed in accordance with the requirements of ICC regulations.	White.....	<p>Stowage: "On deck under cover." "Tween decks." "Under deck." Outside containers: Wooden boxes (ICC-15D, 16B) not over 400 lb. gr. wt. Fiberboard boxes (ICC-12B, 12C) WIC, not over 65 lb. gr. wt.</p>	

Corrosive 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." Outside containers: Carboys, boxed (ICC-1A) glass only, not over 13 gal. cap. Carboys in kegs (ICC-1C) glass only, not over 13 gal. cap. Carboys, boxed, glass (ICC-1D, 1E) not over 6½ gal. cap. Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap. Steel barrels or drums: (ICC-5H) lead-lined, not over 110 gal. cap. (ICC-5D) rubber-lined, not over 110 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Plywood drums (ICC-22A, 22B) WIC of glass not over 1 gal. cap. For export shipment only: Carboys, glass, in plywood drums (ICC-1EX) not over 6½ gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Jugs in tubs (ICC-31) not over 2 gal. each and limited to 1 jug in each tub.</p>	<p>Ferry stowage (AA). Outside containers: Carboys, boxed (ICC-1A) glass only, not over 13 gal. cap. Carboys in kegs (ICC-1C) glass only, not over 13 gal. cap. Carboys, boxed, glass (ICC-1D, 1E) not over 6½ gal. cap. Carboys, polyethylene, in wooden boxes, plywood boxes or drums or metal crates: (ICC-1F, 1G, 1H) not over 13 gal. cap. Steel barrels or drums: (ICC-5H) lead-lined, not over 110 gal. cap. (ICC-5D) rubber-lined, not over 110 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Plywood drums (ICC-22A, 22B) WIC of glass not over 1 gal. cap. For export shipment only: Carboys, glass, in plywood drums (ICC-1EX) not over 6½ gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Jugs in tubs (ICC-31) not over 2 gal. each and limited to 1 jug in each tub.</p>	<p>Ferry stowage (BB). Outside containers: Wooden boxes (ICC-15D, 16B) not over 400 lb. gr. wt. Fiberboard boxes (ICC-12B, 12C) WIC, not over 65 lb. gr. wt.</p>

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation			
			Cargo vessel			
Electrolyte, acid, or alkaline corrosive battery fluid, packed with battery charger, radio current supply device or electronic equipment with electrolyte packed within the same outside container, with such electrolyte container closed, cushioned, and separated from the mechanical device by wooden partition.	White.....	<p>Stowage: "On deck under cover." "Tween decks." "Under deck."</p> <p>Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>Outside ICC specification or non-specification tightly packed boxes, barrels or crates may be used for the shipment of not more than 12 ICC-12B fiberboard boxes containing strong 16-fluid ounce or smaller bottles securely closed and cushioned.</p> <p>Strong tightly closed steel drums, WIC which are acid or alkaline fluid resistant not over 5 gal. cap. may be included with electronic equipment and actuating devices.</p> <p>Stowage: "On deck protected." Outside containers: Cylindrical steel overpack (ICC-37M) WIC ICC-2S or 2SL not over 30 gal. cap. Fiberboard box (ICC-12A) WIC polyethylene, not over 65 lbs. gr. wt.</p>	<p>Stowage: "On deck under cover." "Tween decks readily accessible."</p> <p>Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>Outside ICC specification or non-specification tightly packed boxes, barrels or crates may be used for the shipment of not more than 12 ICC-12B fiberboard boxes containing strong 16-fluid ounce or smaller bottles securely closed and cushioned.</p> <p>Strong tightly closed steel drums, WIC which are acid or alkaline fluid resistant not over 5 gal. cap. may be included with electronic equipment and actuating devices.</p>			
Etching acid, liquid, N.O.S.	A mixture of nitric acid, hydrofluoric acid, having nitric acid in concentrations of not more than 60% by weight, hydrofluoric acid in concentrations of not less than 4% by weight and water not less than 24% by weight, and may contain acetic acid. All outside containers must be plainly marked "NON RE-USABLE CONTAINER". All components of the package must not be reused.	White.....	<p>Stowage: "On deck protected." Outside containers: Cylindrical steel overpack (ICC-37M) WIC ICC-2S or 2SL not over 30 gal. cap. Fiberboard box (ICC-12A) WIC polyethylene, not over 65 lbs. gr. wt.</p>	<p>Not permitted.....</p>	<p>Not permitted.....</p>	<p>Not permitted.</p>
Ethyl chloroformate.....	A clear, colorless, corrosive liquid. Vapors are extremely irritating to the eyes. Gradually decomposed by water. Flashpoint below 80° F.	White.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Wooden boxes: (ICC-15A, 15B, 15C) WIC, not over 200 lb. gr. wt. (ICC-16D) WIC ICC-2SL, not over 15 gal. cap.</p>	<p>Not permitted.....</p>	<p>Not permitted.....</p>	<p>Not permitted.</p>
Ethyl phenyl dichlorosilane.	A colorless liquid which fumes strongly in moist air to develop extremely corrosive products. Avoid breathing fumes which are irritating and dangerous. In event of leakage remove container and flush with large quantities of water.	White.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C) not over 55 gal. cap. (ICC-5F) not over 11 gal. cap. (ICC-17E) STC, not over 55 gal. cap. (ICC-17H, 37A) STC, WIC, not over 55 gal. cap. Wooden boxes (ICC-15A, 15B) WIC, not over 200 lb. gr. wt. Cylinders as prescribed for any compressed gas except acetylene. Tank cars complying with ICC regulations.</p>	<p>Not permitted.....</p>	<p>Not permitted.....</p>	<p>Not permitted.</p>
Fire extinguisher charges (consisting of sulfuric acid in 5 pint or smaller glass bottles).	Fire extinguisher charges in 10 ounce or smaller bottles packed with neutralizer and cushioned as specified by ICC regulations are exempt from specification packaging, marking other than name of contents, and labeling requirements.	White.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Fiber drum (ICC-21C) WIC, not over 35 lb. gr. wt.</p>	<p>Stowage: "On deck protected." Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p>	<p>Ferry stowage (A.A).....</p>	<p>Ferry stowage (BB). Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p>

Corrosive 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 under cover." "Tween decks readily accessible."</p> <p>Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>Outside ICC specification or non-specification tightly packed boxes, barrels or crates may be used for the shipment of not more than 12 ICC-12B fiberboard boxes containing strong 16-fluid ounce or smaller bottles securely closed and cushioned.</p> <p>Strong tightly closed steel drums, WIC which are acid or alkaline fluid resistant not over 5 gal. cap. may be included with electronic equipment and actuating devices.</p>	<p>Ferry stowage (AA).....</p>	<p>Ferry stowage (BB). Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p>
<p>Not permitted.....</p>	<p>Not permitted.....</p>	<p>Not permitted.</p>
<p>Not permitted.....</p>	<p>Not permitted.....</p>	<p>Not permitted.</p>
<p>Not permitted.....</p>	<p>Not permitted.....</p>	<p>Not permitted.</p>
<p>Stowage: "On deck protected." Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p>	<p>Ferry stowage (A.A).....</p>	<p>Ferry stowage (BB). Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p>

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Flame retardant compound, liquid.	Solutions used for treating fabrics to reduce their fire hazards.	White.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 6½ gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Wooden barrels or kegs: (ICO-10A) lined with asphalt or rubber, not over 50 gal. cap. (ICO-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Tank cars complying with ICC regulations.</p>
Fluosulfonic acid.....	A clear, colorless, extremely corrosive liquid. Reacts violently with water. Fumes strongly in moist air to evolve corrosive and toxic vapors. Avoid contact with skin.	White.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums (ICC-5A, 17F (STC)), not over 55 gal. cap. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Tank cars complying with ICC regulations.</p>

Corrosive 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." Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys, boxed, glass (ICC-1E) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1F) not over 6½ gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Wooden barrels or kegs: (ICO-10A) lined with asphalt or rubber, not over 50 gal. cap. (ICO-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p>	<p>Ferry stowage (A.A.) Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Wooden barrels or kegs: (ICO-10A) lined with asphalt or rubber, not over 50 gal. cap. (ICO-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p>	<p>Ferry stowage (B.B.) Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Wooden barrels or kegs: (ICO-10A) lined with asphalt or rubber, not over 50 gal. cap. (ICO-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p>
Not permitted.....	Not permitted.....	Not permitted.....

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Formic acid— Formic acid, solution.	A colorless liquid with a pungent irritating odor. It is combustible and will give off vapors which may form explosive mixtures in air. In concentrated form it is dangerously caustic to the skin. Solidifies at 40° F. Miscible with water.	White.....	<p>Stowage: "On deck in open." "On deck protected." "On deck under cover." "Tween decks."</p> <p>Outside containers: Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, lead, metal-jacketed (ICC-2B) not over 15 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Steel barrels or drums: (ICC-5C, 5) not over 110 gal. cap. (ICC-17H) STC, with special bag-type liners, not over 55 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL, not over 55 gal. cap.) Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 28L, 2U) not over 30 gal. cap. Portable tanks (ICC-60) not over 8,000 lb. gr. wt. marked "For Formic Acid Only." Tank cars complying with ICC regulations stenciled "For Formic Acid Only." For export shipment only: Carboys, glass, in plywood drums (ICC-1EX) not over 6½ gal. cap.</p>

Corrosive 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."</p> <p>Outside containers: Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, lead, metal-jacketed (ICC-2B) not over 15 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Steel barrels or drums: (ICC-5C, 5) not over 110 gal. cap. (ICC-17H) STC, with special bag-type liners, not over 55 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums (ICO-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL, not over 55 gal. cap.) Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.</p>	<p>Ferry stowage (AA): Outside containers: Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, lead, metal-jacketed (ICC-2B) not over 15 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Steel barrels or drums: (ICC-5C, 5) not over 110 gal. cap. (ICC-17H) STC, with special bag-type liners, not over 55 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums (ICO-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL, not over 55 gal. cap.) Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea.</p>	<p>Ferry stowage (BB): Outside containers: Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, lead, metal-jacketed (ICC-2B) not over 15 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Steel barrels or drums: (ICC-5C, 5) not over 110 gal. cap. (ICC-17H) STC, with special bag-type liners, not over 55 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums (ICO-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL, not over 55 gal. cap.) Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea.</p>

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Hexadecyl trichlorosilane.	<i>A water-white liquid with a pungent irritating odor. Somewhat combustible. Fumes readily in moist air to evolve corrosive and irritating vapors. In event of spillage, flush with large quantities of water.</i>	White.....	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>Outside containers:</p> <p>Steel barrels or drums: (ICCC-5, 5A, 5B, 5C) not over 55 gal. cap.</p> <p>(ICCC-5F) not over 11 gal. cap.</p> <p>(ICCC-17E) STC, not over 55 gal. cap.</p> <p>(ICCC-17H, 37A) STC, WIC, not over 55 gal. cap.</p> <p>Wooden boxes (ICCC-15A, 16B) WIC, not over 200 lb. gr. wt.</p> <p>Cylinders as prescribed for any gas except acetylene.</p> <p>Tank cars complying with ICC regulations.</p>

Corrosive 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 F—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Hexamethylene diamine solution.	A colorless solution..... Miscible with water.	White.....	Stowage: "On deck protected." "On deck in open." "On deck under cover." Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Steel barrels or drums (ICC-5A) not over 110 gal. cap. an. not over 1,760 lb. gr. wt. Steel barrels or drums (ICC-5C) not over 110 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums: (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Cylindrical steel overpack: (ICC-8D, 37M (NRC)), WIC, ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A-19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 1 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-21) polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 3 gal. cap. Tank cars complying with 100 regulations.

Corrosive liquids—Continued

Required conditions for transportation—Continued	
Passenger vessel	Ferry vessel, passenger or vehicle
Stowage: "On deck protected." "On deck in open." "On deck under cover." Outside containers: Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap. and not over 1,760 lb. gr. wt. Steel barrels or drums (ICC-5C) not over 110 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums: (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. (ICC-63) WIO ICC-2S, polyethylene, not over 55 gal. cap. Metal drums (ICC-5M) not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.	Ferry stowage (AA) Outside containers: Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap. and not over 1,760 lb. gr. wt. Steel barrels or drums (ICC-5C) not over 110 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums: (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. (ICC-63) WIO ICC-2S, polyethylene, not over 55 gal. cap. Metal drums (ICC-5M) not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap. Tank cars complying with 100 regulations.
R. R. car ferry, passenger or vehicle	Ferry stowage (BB) Outside containers: Steel barrels or drums (ICC-5, 5A) not over 110 gal. cap. and not over 1,760 lb. gr. wt. Steel barrels or drums (ICC-5C) not over 110 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Metal drums: (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. (ICC-63) WIO ICC-2S, polyethylene, not over 55 gal. cap. Metal drums (ICC-5M) not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B), WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Hexyl trichlorosilane	<i>A colorless liquid with a sharp penetrating odor. Fumes strongly in moist air to develop extremely corrosive products. Avoid breathing fumes which are irritating and dangerous. In event of leakage remove container and flush with large quantities of water.</i>	White.....	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>Outside containers:</p> <p>Steel barrels or drums: (ICC-5, 5A, 5B, 5C) not over 55 gal. cap.</p> <p>(ICC-5F) not over 11 gal. cap.</p> <p>(ICC-17E) STC, not over 55 gal. cap.</p> <p>(ICC-17H, 37A) STC, WIC, not over 55 gal. cap.</p> <p>Wooden boxes (ICC-15A, 15B) WIC, not over 200 lb. gr. wt.</p> <p>Cylinders as prescribed for any compressed gas except acetylene.</p> <p>Tank cars complying with ICC regulations.</p> <p>Stowage:</p> <p>“On dock protected.”</p> <p>“On deck under cover.”</p> <p>Outside containers:</p> <p>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.</p> <p>Stainless steel barrels or drums (ICC-5, 5A, 5C, 5G) not over 55 gal. cap.</p> <p>(ICC-17E) STC, not over 55 gal. cap.</p> <p>Wooden boxes (ICC-15A, 15B, 15C) WIC, not over 200 lb. gr. wt.</p> <p>Tank cars complying with ICC regulations.</p> <p>Authorized for hydrazine solution only:</p> <p>Cylindrical steel overpack: (ICC-37M) NRC WIC</p> <p>ICC-2SL not over 55 gal. cap.</p>
Hydrazine, anhydrous	<i>A colorless, combustible liquid with an odor resembling ammonia. Destroys organic substances and textiles. Material reacts violently with acids and some oxidizing materials. Exposure of hydrazine to air on a large surface area (as on rags) may result in spontaneous ignition. Flash point 100° F. Miscible with water. Stow well away from other corrosive liquids or organic materials.</i>	White.....	<p>Not permitted.....</p> <p>Not permitted.....</p> <p>Not permitted.....</p>
Hydrazine solution containing 50% or less of water.		White.	

Corrosive 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 F—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Hydriodic acid	A clear, colorless or pale yellow fuming liquid. Gives off fumes which are irritating in contact with mucous membrane and in sufficient quantities will be suffocating. It is corrosive but will not cause fire. Miscible with water.	White	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck in open.”</p> <p>“On deck under cover.”</p> <p>Outside containers:</p> <p>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.</p> <p>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.</p> <p>Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap.</p> <p>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.</p> <p>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.</p> <p>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1F) STC, for export only, not over 6 gal. cap.</p> <p>Carboys, lead, metal-jacketed (ICC-2B) not over 15 gal. cap.</p> <p>Steel barrels or drums (ICC-5A) not over 110 gal. cap.</p> <p>Steel barrels or drums (ICC-5C) not over 110 gal. cap.</p> <p>Steel barrels or drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.</p> <p>(ICC-17H, 37A, 37B) STC, lined not over 5 gal. cap.</p> <p>(ICC-37P) NRC, not over 5 gal. cap.</p> <p>Monel drums (ICC-5M) not over 55 gal. cap.</p> <p>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.</p> <p>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.</p> <p>Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL, not over 55 gal. cap.</p> <p>Rubber drums (ICC-43A) not over 30 gal. cap.</p> <p>Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap.</p> <p>(ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>(ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt.</p> <p>(ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap.</p> <p>Fiberboard boxes: (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.</p> <p>(ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea.</p> <p>Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.</p> <p>Fiberboard boxes: (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.</p> <p>(ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea.</p> <p>Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.</p>

Corrosive 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:</p> <p>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.</p> <p>Carboys, lead, metal-jacketed (ICC-2B) not over 15 gal. cap.</p> <p>Steel barrels or drums (ICC-5A) not over 110 gal. cap.</p> <p>Steel barrels or drums (ICC-5C) not over 110 gal. cap.</p> <p>Steel barrels or drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.</p> <p>(ICC-17H, 37A, 37B) STC, lined not over 5 gal. cap.</p> <p>(ICC-37P) NRC, not over 5 gal. cap.</p> <p>Monel drums (ICC-5M) not over 55 gal. cap.</p> <p>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.</p> <p>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.</p> <p>Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL, not over 55 gal. cap.</p> <p>Rubber drums (ICC-43A) not over 30 gal. cap.</p> <p>Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap.</p> <p>(ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>(ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt.</p> <p>(ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap.</p> <p>Fiberboard boxes: (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.</p> <p>(ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea.</p> <p>Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.</p> <p>Fiberboard boxes: (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.</p> <p>(ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea.</p> <p>Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.</p>	<p>Ferry stowage (AA)</p> <p>Outside containers:</p> <p>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.</p> <p>Carboys, lead, metal-jacketed (ICC-2B) not over 15 gal. cap.</p> <p>Steel barrels or drums (ICC-5A) not over 110 gal. cap.</p> <p>Steel barrels or drums (ICC-5C) not over 110 gal. cap.</p> <p>Steel barrels or drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.</p> <p>(ICC-17H, 37A, 37B) STC, lined not over 5 gal. cap.</p> <p>(ICC-37P) NRC, not over 5 gal. cap.</p> <p>Monel drums (ICC-5M) not over 55 gal. cap.</p> <p>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.</p> <p>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.</p> <p>Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL, not over 55 gal. cap.</p> <p>Rubber drums (ICC-43A) not over 30 gal. cap.</p> <p>Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap.</p> <p>(ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>(ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt.</p> <p>(ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap.</p> <p>Fiberboard boxes: (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.</p> <p>(ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea.</p> <p>Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.</p>	<p>Ferry stowage (AA)</p> <p>Outside containers:</p> <p>Carboys, boxed, lead (ICC-1B) not over 13 gal. cap.</p> <p>Carboys, lead, metal-jacketed (ICC-2B) not over 15 gal. cap.</p> <p>Steel barrels or drums (ICC-5A) not over 110 gal. cap.</p> <p>Steel barrels or drums (ICC-5C) not over 110 gal. cap.</p> <p>Steel barrels or drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap.</p> <p>(ICC-17H, 37A, 37B) STC, lined not over 5 gal. cap.</p> <p>(ICC-37P) NRC, not over 5 gal. cap.</p> <p>Monel drums (ICC-5M) not over 55 gal. cap.</p> <p>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.</p> <p>Metal drums, lead-lined (ICC-5H) not over 110 gal. cap.</p> <p>Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL, not over 55 gal. cap.</p> <p>Rubber drums (ICC-43A) not over 30 gal. cap.</p> <p>Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap.</p> <p>(ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>(ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt.</p> <p>(ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap.</p> <p>Fiberboard boxes: (ICC-12A, 12B) WIC, not over 65 lb. gr. wt.</p> <p>(ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea.</p> <p>Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.</p>

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Hydrobromic acid	<p><i>A corrosive, fuming liquid varying from colorless to slightly yellow.</i></p> <p><i>Gives off fumes which are irritating in contact with mucous membrane and in sufficient quantities will be suffocating. Is corrosive but will not cause fire.</i></p> <p><i>Miscible with water.</i></p>	White	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck in open.”</p> <p>“On deck under cover.”</p> <p>Outside containers:</p> <p>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.</p> <p>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.</p> <p>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.</p> <p>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.</p> <p>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.</p> <p>For hydrobromic acid not over 49% strength:</p> <p>Plywood drum (ICC-22C) WIC (ICC-2T) not over 15 gal. cap.</p> <p>Cylindrical steel overpack: (ICC-6D) WIC ICC-2S, not over 65 gal. cap.</p> <p>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. net wt.</p> <p>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>Metal drums (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Rubber drums (ICC-43A) not over 30 gal. cap.</p> <p>Tank cars complying with ICC regulations.</p> <p>For hydrobromic acid greater than 49% strength but not over 63% strength:</p> <p>Plywood drum (ICC-22C) WIC (ICC-2T) not over 15 gal. cap.</p> <p>Cylindrical steel overpack: (ICC-6D) WIC ICC-2S not over 65 gal. cap.</p> <p>Wooden box (ICC-15A) WIC polyethylene, not over 1 gal. cap.</p>

Corrosive liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
<p>Stowage:</p> <p>“On deck protected.”</p> <p>Outside containers:</p> <p>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.</p> <p>For hydrobromic acid not over 49% strength:</p> <p>Plywood drum (ICC-22C) WIC (ICC-2T) not over 15 gal. cap.</p> <p>Cylindrical steel overpack: (ICC-6D) WIC ICC-2S, not over 65 gal. cap.</p> <p>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. net wt.</p> <p>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>Metal drums (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Rubber drums (ICC-43A) not over 30 gal. cap.</p>	<p>Ferry stowage (AA):</p> <p>Outside containers:</p> <p>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.</p> <p>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.</p> <p>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.</p> <p>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.</p> <p>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.</p> <p>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. net wt.</p> <p>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>Metal drums (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Rubber drums (ICC-43A) not over 30 gal. cap.</p>	<p>Ferry stowage (BB):</p> <p>Outside containers:</p> <p>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1A) not over 13 gal. cap.</p> <p>Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap.</p> <p>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.</p> <p>Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap.</p> <p>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.</p> <p>Fiberboard boxes (ICC-12A) WIC, not over 65 lb. net wt.</p> <p>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>Metal drums (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Rubber drums (ICC-43A) not over 30 gal. cap.</p>

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Hydrochloric (muriatic) acid. Note: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.	A corrosive, fuming liquid, varying from colorless to yellow. Gives off fumes which are irritating in contact with mucous membrane and in sufficient quantities will be suffocating. Will damage or destroy many articles by contact but does not cause fire. Will dissolve tin, iron, and steel with evolution of hydrogen gas. Noninflammable. Miscible with water. Shall not be accepted in unlined metal drums. Do not stow with sulfuric acid, nitric acid or chlorates. Do not stow over other cargo. See "Hydrochloric acid".	White.	<p>Stowage: "On deck protected." "On deck under cover."</p> <p>Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys, in plywood drums, glass (ICC-1E) not over 6½ gal. cap. Carboys, boxed, glass (ICC-1K) not over 13 gal. cap. Carboys, boxed, glass (ICC-1L) not over 13 gal. cap. Carboys, in plywood drums, glass (ICC-1E) not over 6½ gal. cap. Carboys, boxed, glass (ICC-1K) not over 13 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T, 2TL) not over 15 gal. cap. Steel barrels or drums: (ICC-5D) rubber-lined not over 110 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. (ICC-6D, 37M (NRC)), WIC ICC-2T or 2TL, not over 15 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) rubber-lined, not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC (ICC-2U) not over 15 gal. cap. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B, 12C) WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICO-2U polyethylene) not over 5 gal. cap. ea.</p>
Hydrochloric acid mixtures. Note: When hydrochloric acid contains oils or solvents it must not be shipped in rubber-lined containers. Hydrochloric (muriatic) acid solution, inhibited. Compounds, cleaning, liquid (containing hydrochloric (muriatic) acid)	See "Hydrochloric (muriatic) acid". See "Hydrochloric (muriatic) acid". Hydrochloric acid of not over 20% strength, and other corrosive liquids containing not over 20% hydrochloric acid, in inside containers not more than 8 fluid ounces capacity each, packed and cushioned as specified by ICC regulations are exempt from specification packaging, marking other than name of contents, and labeling requirements.	White.	

Corrosive liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
		Ferry stowage (AA).....
		Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys, in plywood drums, glass (ICC-1E) not over 6½ gal. cap. Carboys, boxed, glass (ICC-1K) not over 13 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T, 2TL) not over 15 gal. cap. Steel barrels or drums: (ICC-5D) rubber-lined, not over 110 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. (ICC-6D, 37M (NRC)), WIC ICC-2T or 2TL, not over 15 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) rubber-lined, not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC (ICC-2U) not over 15 gal. cap. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap.
		Ferry stowage (BB). Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys, in plywood drums, glass (ICC-1E) not over 6½ gal. cap. Carboys, boxed, glass (ICC-1K) not over 13 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T, 2TL) not over 15 gal. cap. Steel barrels or drums: (ICC-5D) rubber-lined, not over 110 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. (ICC-6D, 37M (NRC)), WIC ICC-2T or 2TL, not over 15 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) rubber-lined, not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC (ICC-2U) not over 15 gal. cap. (ICC-16D) WIC (ICO-2T, 2TL, 2S, 2SL) not over 15 gal. cap.

Table F—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Hydrochloric (muriatic) acid.			Outside containers—Continued Fiber drum (ICC-21C) W10 (ICC-2T, 2S, 2SL, 2U) not over 225 lb. gr. wt.
Hydrochloric acid mixtures.			Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea.
Hydrochloric (muriatic) acid solution, inhibited. Compounds, cleaning, liquid (containing hydrochloric (muriatic) acid)—Continued			Paper-faced expanded polystyrene board boxes (ICC-12R) with not more than six 5-pint glass bottles.
			Portable tanks, rubber-lined (ICC-60) not over 8,000 lb. gr. wt.
			Authorized only for hydrochloric acid not over 44½% strength by weight:
			Tank cars complying with ICC regulations.
			For export shipment only: Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, not over 5 gal. cap.
			Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.
			Authorized only for hydrochloric (muriatic) acid solution, inhibited, containing not to exceed 16% hydrochloric acid:
			Metal barrels or drums; (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. Drums must be lined throughout with a pliable plastic material impervious to the solution.
			Authorized only for hydrochloric (muriatic) acid solution, inhibited, containing not to exceed 15% hydrochloric acid:
			Metal barrels or drums; (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. Drums must be lined throughout with a pliable plastic material impervious to the solution.
			(See Note in columns 5, 6, and 7.)

Corrosive liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Outside containers—Continued Fiberboard boxes: (ICC-12A, 12B, 12C) W1C, not over 65 lb. gr. wt.	Outside containers—Continued Fiberboard boxes: (ICC-12A, 12B, 12C) W1C, not over 65 lb. gr. wt.	Outside containers—Continued Fiberboard boxes: (ICC-12A, 12B, 12C) W1C, not over 65 lb. gr. wt.
(ICC-12P) W1C (ICC-2U polyethylene) not over 5 gal. cap. ea.	(ICC-12P) W1C (ICC-2U polyethylene) not over 5 gal. cap. ea.	(ICC-12P) W1C (ICC-2U polyethylene) not over 5 gal. cap. ea.
Fiber drum (ICC-21C) W1C (ICC-2T, 2S, 2SL, 2U) not over 225 lb. gr. wt.	Fiber drum (ICC-21C) W1C (ICC-2T, 2S, 2SL, 2U) not over 225 lb. gr. wt.	Fiber drum (ICC-21C) W1C (ICC-2T, 2S, 2SL, 2U) not over 225 lb. gr. wt.
Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea.	Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea.	Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea.
Portable tanks, rubber-lined (ICC-60) not over 8,000 lb. gr. wt.	Portable tanks, rubber-lined (ICC-60) not over 8,000 lb. gr. wt.	Portable tanks, rubber-lined (ICC-60) not over 8,000 lb. gr. wt.
Authorized only for hydrochloric acid not over 44½% strength by weight:	Authorized only for hydrochloric acid not over 44½% strength by weight:	Authorized only for hydrochloric acid not over 44½% strength by weight:
Tank cars complying with ICC regulations.	Tank cars complying with ICC regulations.	Tank cars complying with ICC regulations.
For export shipment only: Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, not over 5 gal. cap.	For export shipment only: Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, not over 6 gal. cap.	For export shipment only: Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, not over 6 gal. cap.
Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.	Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.	Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.
Authorized only for hydrochloric (muriatic) acid solution, inhibited, containing not to exceed 16% hydrochloric acid:	Authorized only for hydrochloric (muriatic) acid solution, inhibited, containing not to exceed 16% hydrochloric acid:	Authorized only for hydrochloric (muriatic) acid solution, inhibited, containing not to exceed 16% hydrochloric acid:
Metal barrels or drums; (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. Drums must be lined throughout with a pliable plastic material impervious to the solution.	Metal barrels or drums; (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. Drums must be lined throughout with a pliable plastic material impervious to the solution.	Metal barrels or drums; (ICC-17H, 37A, 37B) STC, not over 5 gal. cap. Drums must be lined throughout with a pliable plastic material impervious to the solution.

NOTE: Hydrochloric acid of not over 20% strength by weight (13.25° Baume) may also be accepted in: Wooden barrels or kegs (ICC-10A) asphalt lined not over 50 gal. cap.

Table F—Classification of Corrosive liquids—Continued

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation			
			Cargo vessel	Passenger vessel	Ferry vessel, passenger or vehicle	
Hydrofluoric acid	<p><i>A colorless, volatile, fuming corrosive liquid with a pungent irritating, odor, used primarily for etching glass. Dissolves glass and certain metals. Produces painful burn when allowed to contact flesh. Gives off fumes which are irritating in contact with mucous membrane and caustic in their effects. Miscible with water. Observe special requirements for stowage on board vessels also transporting explosives. Keep cool.</i></p>	White	<p>Stowage: “On deck protected.” Outside containers: Hydrofluoric acid not over 70% strength: Cylindrical steel overpacks: (ICC-6D) WIC ICC-28 or 28L, not over 55 gal. cap. (ICC-6D, 37M (NRC) WIC ICC-2T, not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Wooden boxes: (ICC-15A, 15B, 15C, 16A-19A) WIC, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T) not over 15 gal. cap. Fiberboard boxes (ICC-12B) WIC, not over 1 lb. cap. each, not over 65 lb. gr. wt. Hydrofluoric acid not less than 60% or more than 80% strength: Steel barrels or drums (ICC-5A) not over 55 gal. cap. Hydrofluoric acid not over 60% strength: Rubber drums (ICC-48A) not over 30 gal. cap. Hydrofluoric acid not over 65% strength: Metal barrels or drums, lined (ICC-6D) not over 55 gal. cap. Hydrofluoric acid, not over 55% strength: Fiberboard box (ICC-12A) WIC polyethylene 1 gallon bottles, not over 65 lb. gr. wt. Hydrofluoric acid not over 80% strength: Tank cars complying with ICC regulations. Hydrofluoric acid solutions and concentrations of 60% up to 65%, when shipped in unlined steel containers or metal tank cars, must be inhibited so that the corrosive effect on steel must not be greater than that of hydrofluoric acid of 65% concentration. Hydrofluoric acid, not over 70% strength: Fiberboard boxes (ICC-12A, 12B) WIC polyethylene not over 1 gal. cap. ea.; ICC-12A, not over 80 lb. gr. wt.; ICC-12B, not over 60 lb. gr. wt. Hydrofluoric acid of 48 to 55% strength: Fiberboard boxes (ICC-12P) WIC ICC-27L, not over 5 gal. cap.</p>	<p>Not permitted</p>	<p>Not permitted</p>	<p>Not permitted</p>

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Hydrofluoric acid, anhydrous.	<p><i>Hydrofluoric acid in a gaseous state of normal temperature and pressure.</i> <i>Pressure about 30 lb. per sq. in. at 130° F.</i> <i>Boiling point 66° F.</i> <i>Vapor lighter than air.</i> <i>Fumes in moist air.</i> <i>Vapor is very corrosive.</i> <i>Produces painful burns on contact with skin, mucous membrane, or eyes.</i> <i>Very soluble in water.</i> <i>Do not stow with anhydrous ammonia or ammonia liquid.</i> <i>Keep cool.</i> <i>Cylinders removed from anhydrous hydrofluoric acid service shall not be reused for shipment of any other dangerous cargo.</i></p> <p><i>Mixtures of hydrofluoric acid and sulfuric acid, containing not more than 80% by weight and not less than 70% by weight of hydrofluoric acid and sulfuric acid combined, with the hydrofluoric acid content not less than 25% by weight in any case.</i></p> <p><i>A clear, colorless, syrupy liquid with a pungent odor. Extremely corrosive to textiles, metals and tissue.</i> <i>Reacts violently with water to develop heat.</i> <i>Wash quickly with large quantities of water if accidentally spilled on skin or clothing.</i> <i>Keep dry.</i></p>	White.....	<p>Stowage: “On deck protected.” Outside containers: Cylinders (ICC-3, 3A, 3AA, 3B, 3C, 3E, 4, 4A, 25, 38) and (ICC-4B, 4BA, 4C) if not brazed. Portable tanks (ICO-51) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations</p>
Hydrofluoric and sulfuric acids, mixtures.	<p><i>Mixtures of hydrofluoric acid and sulfuric acid, containing not more than 80% by weight and not less than 70% by weight of hydrofluoric acid and sulfuric acid combined, with the hydrofluoric acid content not less than 25% by weight in any case.</i></p> <p><i>A clear, colorless, syrupy liquid with a pungent odor. Extremely corrosive to textiles, metals and tissue.</i> <i>Reacts violently with water to develop heat.</i> <i>Wash quickly with large quantities of water if accidentally spilled on skin or clothing.</i> <i>Keep dry.</i></p>	White.....	<p>Stowage: “On deck protected.” Outside containers: Steel barrels or drums: (ICC-5A) not over 55 gal. cap. NOTE: Drums must have been properly passified or neutralized as required by ICC regulations.</p>

Corrosive 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.
Not permitted.....	Not permitted.....	Not permitted

Table F—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Hydrofluosilicic acid	A clear, colorless fuming liquid. It has a strong corrosive action on steel, lead, and glass. It is caustic to the skin and will inflict severe burns. Irritating to mucous membrane. Miscible with water. Do not use paint in the vicinity of hydrofluosilicic acid.	White.....	<p>Stowage: "On deck protected."</p> <p>Outside containers: Wooden barrels or kegs: (ICC-10A) lined with asphalt or other material of equal efficiency, resistant to hydrofluosilicic acid, not over 50 gal. cap. (ICC-11A, 11B) WIC of natural rubber or ceresine. Outside containers not over 200 lb. net wt.</p> <p>Wooden boxes, WIC of natural rubber or ceresine or other material of equal efficiency resistant to hydrofluosilicic acid (ICC-15A, 15B, 15C, 16A, 19A), not over 200 lb. gr. wt.</p> <p>Wooden boxes (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt.</p> <p>Hydrofluosilicic acid of not over 40% strength may also be accepted in: Steel barrels or drums, rubber-lined (ICC-5D), not over 55 gal. cap.</p> <p>Rubber drums (ICC-43A) not over 30 gal. cap.</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>Hydrofluosilicic acid containing no free hydrofluoric acid or other ingredient which will attack glass may also be accepted in: Carboys, boxed, glass only (ICC-1A) not over 13 gal. cap.</p> <p>Carboys in kegs, glass only (ICC-1C) not over 13 gal. cap.</p> <p>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.</p> <p>Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap.</p> <p>Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap.</p> <p>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>Authorized only for hydrofluosilicic acid not exceeding 32% strength: Fiberboard boxes (ICC-12B) WIC, not over 65 lb. gr. wt.</p> <p>Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap.</p> <p>Cylindrical steel overpacks: (ICC-6D) WIC ICC-28 or 28L, not over 30 gal. cap. (ICC-37M) NRC, WIC ICC-28 or 28L, not over 16 gal. cap.</p> <p>Metal drums (ICC-37P) NRC, not over 5 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC (ICC-28, 28L, 2U) not over 225 lb. gr. wt.</p>

Corrosive 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 F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
<i>A colorless, heavy liquid having powerful oxidizing properties. Expands rapidly with an increase in temperature. Miscible with water.</i> NOTE: Hydrogen peroxide containing over 37% H ₂ O ₂ by weight is not permitted on passenger vessels. Hydrogen peroxide containing over 52% H ₂ O ₂ by weight is not permitted transportation except under special permission and upon freight vessels only.	White	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Solution not over 52% strength by weight. Cylindrical steel overpack: (ICC-6D, 37M) WIC ICC-28 or 2SL, not over 55 gal. cap. Aluminum drums (ICC-42D) with vented closure, drums marked "Keep this end up" not over 55 gal. cap. Aluminum drums (ICC-42E) STC, not over 55 gal. cap. Carboys, aluminum (ICC-34B) not over 15 gal. cap. Wooden boxes, (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Fiberboard box (ICC-12B) WIC polyethylene bottles not over 16 oz. cap. each, not over 65 lb. gr. wt. Tank cars complying with ICC regulations. Highway vehicle cargo tanks. Solutions not over 37% strength by weight may also be shipped in: Carboys, boxed, glass (ICC-1A) with vented stoppers, not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) with vented stoppers, not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Wooden box (ICC-16D) WIC (ICC-2T, 2TL) not over 15 gal. cap. Fiberboard boxes (ICC-12A, 12B) WIC of glass, polyethylene or aluminum, not over 65 lb. gr. wt. Metal drums (ICC-6J) WIC (ICC-28 polyethylene) not over 55 gal. cap. Solutions not over 10% strength by weight may also be shipped in: Wooden barrels, paraffin-lined (ICC-10A) not over 30 gal. cap.</p>	

Corrosive 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." Outside containers: Solution not over 37% strength by weight. Aluminum drums (ICC-42D) with vented closure, drums marked "Keep this end up" not over 55 gal. cap. Aluminum drums (ICC-42E) STC, not over 55 gal. cap. Carboys, aluminum (ICC-34B) not over 15 gal. cap. Wooden boxes, (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Highway vehicle cargo tanks. Carboys, boxed, glass (ICC-1A) with vented stoppers, not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) with vented stoppers, not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Wooden box (ICC-16D) WIC (ICC-2T, 2TL) not over 15 gal. cap. Fiberboard boxes (ICC-12A, 12B) WIC of glass, polyethylene or aluminum, not over 65 lb. gr. wt. Metal drums (ICC-6J) WIC (ICC-28 polyethylene) not over 55 gal. cap. Solutions not over 10% strength by weight may also be shipped in: Wooden barrels, paraffin-lined (ICC-10A) not over 30 gal. cap.</p>	<p>Ferry stowage (AA): Outside containers: Solution not over 37% strength by weight. Aluminum drums (ICC-42D) with vented closure, drums marked "Keep this end up" not over 55 gal. cap. Aluminum drums (ICC-42E) STC, not over 55 gal. cap. Carboys, aluminum (ICC-34B) not over 15 gal. cap. Wooden boxes, (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Highway vehicle cargo tanks. Carboys, boxed, glass (ICC-1A) with vented stoppers, not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) with vented stoppers, not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Wooden box (ICC-16D) WIC (ICC-2T, 2TL) not over 15 gal. cap. Fiberboard boxes (ICC-12A, 12B) WIC of glass, polyethylene or aluminum, not over 65 lb. gr. wt. Metal drums (ICC-6J) WIC (ICC-28 polyethylene) not over 55 gal. cap. Solutions not over 10% strength by weight may also be shipped in: Wooden barrels, paraffin-lined (ICC-10A) not over 30 gal. cap.</p>	<p>Ferry stowage (BB): Outside containers: Solution not over 37% strength by weight. Aluminum drums (ICC-42D) with vented closure, drums marked "Keep this end up" not over 55 gal. cap. Aluminum drums (ICC-42E) STC, not over 55 gal. cap. Carboys, aluminum (ICC-34B) not over 15 gal. cap. Wooden boxes, (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Highway vehicle cargo tanks. Carboys, boxed, glass (ICC-1A) with vented stoppers, not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) with vented stoppers, not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Wooden box (ICC-16D) WIC (ICC-2T, 2TL) not over 15 gal. cap. Fiberboard boxes (ICC-12A, 12B) WIC of glass, polyethylene or aluminum, not over 65 lb. gr. wt. Metal drums (ICC-6J) WIC (ICC-28 polyethylene) not over 55 gal. cap. Solutions not over 10% strength by weight may also be shipped in: Wooden barrels, paraffin-lined (ICC-10A) not over 30 gal. cap.</p>

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Hypochlorite solutions containing more than 7% available chlorine by weight.	Hypochlorite solutions in glass or earthenware containers of not more than 4 fluid ounces capacity each, or in polyethylene pouches not over 2½ ounces capacity each packed and cushioned as specified by ICC Regulations, are exempt from specification packaging, marking other than name of contents, and labeling requirements.	White.....	<p>Stowage: "On deck protected."</p> <p>Outside containers: Carboys, glass, in boxes, kegs or plywood drums (ICC-1A, 1C, 1D, 1E) not over 13 gal. cap. Wooden boxes (ICC-15A, 15B, 15C) WIC, not over 65 lb. gr. wt.</p> <p>Fiberboard boxes: (ICC-12P) WIC (ICC-2U polyethylene), not over 5 gal. cap. (ICC-12B) WIC polyethylene 2U, not over 5 gal. cap.</p> <p>Authorized only for sodium hypochlorite solution not over 16% strength: Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden drum (ICC-2C) WIC (ICC-2T) not over 15 gal. cap. Plywood or wooden box (ICC-15P) WIC (ICC-2T, 2S) not over 15 gal. cap. Steel barrels or drums (ICC-6J) WIC (ICC-28 2SL polyethylene) not over 55 gal. cap.</p>
Iodine monochloride.....	Reddish-brown, oily liquid. In event of spillage, flush with large quantities of water.	White.....	<p>Stowage: "On deck protected."</p> <p>Outside containers: Wooden boxes: (ICC-15A, 15B) WIC, not over 200 lb. gr. wt.</p>
Isopropyl percarbonate, stabilized. Methyltetrahydro Phthalic Anhydride.	A clear, transparent, slightly viscous liquid. Colorless to light yellow. In event of leakage; avoid contact with skin, protect eyes from liquid. Very toxic.	White.....	<p>Not permitted.....</p> <p>Stowage: "On deck protected." "On deck under cover." "On deck in open." "Tween decks." "Under deck." Outside containers: Steel drums: (ICC-37P) NRC, not over 15 gal. cap. (ICC-17E) STC, not over 55 gal. cap. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Fiberboard box: (ICC-12A) WIC, not over 65 lb. gr. wt.</p>
Methyl chloroformate.....	A clear, colorless liquid..... Vapors extremely irritating to eyes. Gradually decomposed by water.	White.....	<p>Not permitted.....</p> <p>Stowage: "On deck protected." "On deck under cover." Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Wooden boxes: (ICC-15A, 15B, 15C) WIC, not over 200 lb. gr. wt. (ICC-16D) WIC ICC-2SL, not over 15 gal. cap.</p>

Corrosive 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.
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 F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Monochloroacetic acid, liquid.	<i>Colorless to light brown liquid. Caustic to the skin. In event of spillage flush with water.</i>	White.....	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks." Outside containers: Carboys, glass, in boxes, kegs or plywood drums: (ICC-1A, 1B, 1C, 1E) not over 13 gal. cap. (ICC-1D) not over 6½ gal. cap. For export only: (ICC-IX) STC, not over 6 gal. cap. Wooden barrels or kegs: (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Tank cars complying with ICC regulations. Stowage: "On deck protected." Outside containers: Metal barrels or drums: (ICC-5A) not over 110 gal. cap. (must comply with special ICC regulations). (ICC-5C) stainless steel drum not over 55 gal. cap. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Carboys, boxed, glass, earthenware, clay or stone (ICC-IX) STC, for export only, not over 6 gal. cap. Portable tanks (ICC-60) not over 8,000 lb. gr. wt. (must comply with special ICC regulations). Tank cars complying with ICC regulations. Authorized only for mixed nitric and sulfuric acids containing not over 17% nitric acid and at least 33% water: Carboys, boxed (ICC-1A) not over 13 gal. cap. Carboys in kegs (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass, vented (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 6½ gal. cap.</p>
Nitrating (mixed) acid...	<i>Fuming corrosive liquid..... Corrosive to most metals. Contact with skin will produce very bad burns. Do not breathe fumes. Protect eyes from fumes and liquids. Contact with organic matter may cause fire. Miscible with water with evolution of heat. Store well away from combustible substances. Do not accept for transportation if packed in the same container with any other substance. Must not be transported on any vessel carrying Class A or Class B explosives</i>	White.....	<p>Not permitted.....</p>

Corrosive 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.
Not permitted.....	Not permitted.....	Not permitted.

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Nitric acid.....	<p>A fuming, corrosive liquid, varying from colorless to red. It has a corrosive action on almost all metals. It is a strong oxidizing agent. In contact with organic matter will likely cause fire. Gives off very poisonous, volatile reddish-brown fumes. Poisonous effects, often fatal, may occur several hours after inhalation of fumes. Do not breathe these fumes. In contact with skin will produce very bad burns. Protect the eyes from fumes or liquid. Vapors heavier than air. Miscible with water with evolution of much heat. Stow well away from corrosive liquids (white label) and all combustible substances. Do not accept for transportation if packed in the same container with any other substance. Must not be transported on any vessel carrying Class A or Class B explosives.</p>	White.....	<p>Stowage: "On deck protected." Outside containers: Nitric acid of any concentration: Stainless steel barrels or drums (ICC-5C) not over 110 gal. cap. Tank cars complying with ICC regulations. Nitric acid of 80% or greater concentration: Steel drums (ICC-5X) alum. num-lined, not over 110 gal. cap. Aluminum drums (ICC-42E) not over 110 gal. cap. Nitric acid of 90% or greater concentration: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC of glass within tightly closed metal cans, outside container not over 200 lb. gr. wt. Wooden barrels or kegs: (ICC-11A, 11B) WIC of glass within tightly closed metal cans, outside containers not over 200 lb. net wt. Nitric acid of less than 90% concentration: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC of glass, not over 200 lb. gr. wt. Wooden barrels or kegs (ICC-11A, 11B) WIC of glass, not over 200 lb. net wt. Nitric acid of 72% or less concentration: Carboys, boxed (ICC-1A) straight sided, not over 11 gal. cap. Carboys in kegs (ICC-10) straight-sided, not over 11 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 6½ gal. cap. Carboys, boxed, glass (ICC-1K) not over 13 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea. Paper-faced expanded polystyrene board boxes (ICC-12R) with not more than six 5-pint glass bottles. Portable tanks (ICC-60) glam lined, not over 8,000 lb. gr. wt. Nitric acid of not over 50% concentration: Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 4 1/2 oz. each, not over 100 lb. gr. wt. Fiberboard boxes: (ICC-12B) WIC, not over 4 fl. oz. each, not over 6 lb. gr. wt.</p>

Corrosive 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 F—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Nitrohydrochloric acid (mixture of nitric acid not over 1.42 specific gravity and hydrochloric acid not over 1.19 specific gravity in the approximate proportions of one part nitric acid and three parts hydrochloric acid). Nitrohydrochloric acid, diluted.	Characteristics and precautions same as for "Nitric acid" except corrosive action and oxidizing effects are greater.	White.....	Stowage: "On deck protected." Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Additional outside containers allowed only for nitro hydrochloric acid, diluted to not less than 5 times its volume with water: Carboys, boxed, glass (ICC-1A) not over 5 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap.
Nonyl trichlorosilane.....	<i>Nitrohydrochloric acid which has been diluted to not less than 5 times its volume with water.</i> Characteristics and precautions same as above.	White.....	Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C) not over 55 gal. cap. (ICC-5F) not over 11 gal. cap. (ICC-17E) STC, not over 55 gal. cap. (ICC-17H, 37A) STC, WIC, not over 55 gal. cap. Wooden boxes: (ICC-15A, 16B) WIC, not over 200 lb. gr. wt. Cylinders as prescribed for any compressed gas except acetylene. Tank cars complying with ICC regulations.
Octadecyl trichlorosilane.....	<i>A water-white liquid with a pungent irritating odor.</i> Somewhat combustible. Fumes readily in moist air to evolve corrosive and irritating vapors. In event of spillage, flush with large quantities of water.	White.....	Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C) not over 55 gal. cap. (ICC-5F) not over 11 gal. cap. (ICC-17E) STC, not over 55 gal. cap. (ICC-17H, 37A) STC, WIC, not over 55 gal. cap. Wooden boxes (ICC-15A, 16B) WIC, not over 200 lb. gr. wt. Cylinders as prescribed for any gas except acetylene. Tank cars complying with ICC regulations.
Octyl trichlorosilane.....	<i>A water-white liquid with a pungent irritating odor.</i> It is somewhat combustible. Fumes readily in moist air to evolve corrosive and irritating vapors. In event of spillage, flush with large quantities of water.	White.....	Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-5, 5A, 5B, 5C) not over 55 gal. cap. (ICC-5F) not over 11 gal. cap. (ICC-17E) STC, not over 55 gal. cap. Steel barrels or drums, WIC: (ICC-17H, 37A) STC, WIC, not over 55 gal. cap. Wooden boxes (ICC-15A, 16B) WIC, not over 200 lb. gr. wt. Cylinders as prescribed for any compressed gas except acetylene. Tank cars complying with ICC regulations.

Corrosive 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.
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 F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Perchloric acid not in excess of 70%.	<i>A clear, colorless liquid. Powerful oxidizer. Caustic to the skin. Vapors are irritating. Mixed with combustible material in the presence of fire will burn with explosive rapidity. Miscible with water with evolution of heat. Do not stow with organic substances, ether, benzol, alcohol, petroleum, or any of the inflammable gases. Note: Perchloric acid must not be accepted if packed with any other article.</i>	White.....	<p>Stowage: "On deck protected." Outside containers: Carboys, boxed (ICC-1A) not over 13 gal. cap. Carboys in kegs (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 8½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass (ICC-1F) not over 13 gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) not over 8 gal. cap. Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea. Paper-faced expanded polystyrene board boxes (ICC-12R) with not more than six 5-pint glass bottles. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC of glass, not over 200 lb. gr. wt.</p> <p>Not permitted.....</p>
Perchloric acid in excess of 70%.			
Phenyl trichlorosilane.	<i>A water-white liquid with a pungent irritating odor. It is somewhat combustible. Fumes readily in moist air to evolve corrosive and irritating vapors. In event of spillage, flush with large quantities of water.</i>	White.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums: (ICC-6, 5A, 5B, 5C) not over 55 gal. cap. (ICC-5F) not over 11 gal. cap. (ICC-17E) STC, not over 55 gal. cap. (ICC-17H, 37A), STC, WIC, not over 55 gal. cap. Wooden boxes (ICC-15A, 16B) WIC, not over 200 lb. gr. wt. Cylinders as prescribed for any compressed gas except acetylene. Tank cars complying with ICC regulations.</p> <p>Not permitted.....</p> <p>Not permitted.....</p>
Phosphorus oxychloride.	<i>A colorless, fuming liquid, with a pungent odor. A strong oxidizer. Decomposed by water with evolution of heat, forming hydrochloric and phosphoric acids the vapors of which are irritating to mucous membrane and will be dangerous for even short exposure. It acts strongly on organic matter, producing great heat. Stow well away from all organic materials. Keep dry.</i>	White.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums (ICC-5H), lead-lined, not over 110 gal. cap. Nickel barrels or drums (ICC-5K) not over 110 gal. cap. Monel drums (ICC-5M) not over 10 gal. cap. Carboys, lead, metal-jacketed (ICC-28), not over 15 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Portable tanks, lead-lined (ICC-60), not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations.</p> <p>Not permitted.....</p>
Phosphorus oxybromide.			

Corrosive 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.
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 F—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Phosphorus tribromide...	<i>A colorless, corrosive, fuming liquid. Very penetrating odor. Decomposed by water with evolution of heat. Keep dry.</i>	White.....	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>Outside containers:</p> <p>Steel barrels or drums (ICC-5H), lead-lined, not over 110 gal. cap.</p> <p>Nickel drums (ICC-5K) not over 10 gal. cap.</p> <p>Monel drums (ICC-5M) not over 10 gal. cap.</p> <p>Carboys, lead, metal-jacketed (ICC-28), not over 15 gal. cap.</p> <p>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p>
Phosphorus trichloride...	<i>A colorless, fuming liquid, with a pungent odor. A strong oxidizer. Decomposed by water with evolution of heat, forming hydrochloric and phosphoric acids the vapors of which are irritating to mucous membrane and will be dangerous for even short exposure. It acts strongly on organic matter, producing great heat. Store well away from all organic materials. Keep dry.</i>	White.....	<p>Stowage:</p> <p>“On deck protected”</p> <p>“On deck under cover”</p> <p>Outside containers:</p> <p>Steel barrels or drums: (ICC-5A, 5C) not over 110 gal. cap.</p> <p>(ICC-5H) lead-lined, not over 110 gal. cap.</p> <p>(ICC-17C) STC, WIL (not required for stainless steel drum), not over 55 gal. cap.</p> <p>Nickel barrels or drums (ICC-5K) not over 110 gal. cap.</p> <p>Monel drums (ICC-5M) not over 10 gal. cap.</p> <p>Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap.</p> <p>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>Portable tanks, lead-lined (ICC-60) not over 8,000 lb. gr. wt.</p> <p>Tank cars complying with ICC regulations.</p> <p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>Outside containers:</p> <p>Steel barrels or drums: (ICC-5, 5A, 5B, 5C) not over 55 gal. cap.</p> <p>(ICC-5P) not over 11 gal. cap.</p> <p>(ICC-17E) STC, not over 55 gal. cap.</p> <p>(ICC-17H, 37A), STC, WIC, not over 55 gal. cap.</p> <p>Wooden boxes (ICC-15A, 16B) WIC, not over 200 lb. gr. wt.</p> <p>Cylinders as prescribed for any compressed gas except acetylene.</p> <p>Tank cars complying with ICC regulations.</p>
Propyl trichlorosilane....	<i>A water-white liquid with a pungent irritating odor. It is somewhat combustible. Fumes readily in moist air to evolve corrosion and irritating vapors. In event of spillage, flush with large quantities of water.</i>	White.....	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>Outside containers:</p> <p>Steel barrels or drums: (ICC-5, 5A, 5B, 5C) not over 55 gal. cap.</p> <p>(ICC-5P) not over 11 gal. cap.</p> <p>(ICC-17E) STC, not over 55 gal. cap.</p> <p>(ICC-17H, 37A), STC, WIC, not over 55 gal. cap.</p> <p>Wooden boxes (ICC-15A, 16B) WIC, not over 200 lb. gr. wt.</p> <p>Cylinders as prescribed for any compressed gas except acetylene.</p> <p>Tank cars complying with ICC regulations.</p>

Corrosive 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.
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.

Table F—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Pyro sulfuryl chloride	<i>A colorless, corrosive, fuming liquid. Decomposed by water forming hydrochloric and sulfuric acid, the fumes of which are irritating to mucous membrane. Keep dry.</i>	White.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Carboys, boxed, glass earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Steel barrels or drums: (ICC-5A, 5B) not over 110 gal. cap. (ICC-17C) STC, not over 55 gal. cap.</p>
Silicon chloride (tetra-chloride).	<i>A colorless liquid, fuming strongly in air. Gives off suffocating fumes. Mixed with water it decomposes, forming hydrochloric acid, the fumes of which are irritating to mucous membrane. Keep dry.</i>	White.	<p>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Portable tanks (ICC-60) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations. Authorized only for "Pyro sulfuryl chloride"; Nickel drums (ICC-5K) not over 110 gal. cap.</p>
Sludge acid	<i>Waste or spent sulfuric acid, usually that from refining petroleum oils and crude benzenes. Will disintegrate organic material in general. Soluble in water, evolving heat. Acid residue resulting from the use of sulfuric acid in various processes. Will disintegrate organic material in general.</i>	White.....	<p>Stowage: "On deck protected." Outside containers: Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Portable tanks (ICC-60) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations.</p>
Spent sulfuric acid	<i>Soluble in water, evolving heat. Acid residue resulting from the use of sulfuric acid in various processes. Will disintegrate organic material in general. Soluble in water, evolving heat. Mixed acid which has given up part of its nitric acid resulting from its use in some process. Strongly corrosive. Soluble in water, evolving heat. Will disintegrate organic material in general.</i>	White.	<p>Bulk: In tanks, on or under deck for cargo vessels only. Authorized only for "Spent sulfuric acid"; Carboys, boxed (ICC-1A) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.</p>
Spent mixed acid		White.	

Corrosive 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 F—Classification of Corrosive Liquids—Continued

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation				
			Cargo vessel	Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle	
Sodium aluminate, liquid	<i>Hazardous in contact with organic substances and textiles.</i> Sodium aluminate, liquid, in inside containers of not more than 8 fluid ounces capacity each packed and cushioned as specified by ICC regulations are exempt from specification packaging, marking other than name of contents, and labeling requirements.	White	<p>Stowage: "On deck protected." "On deck under cover." "On deck in open." Outside containers: Carboys, glass, in boxes, kegs or plywood drums: (ICC-1A, 1B, 1C, 1E) not over 13 gal. cap. (ICC-1D) not over 6½ gal. cap. (ICC-1X) not over 6 gal. cap. for export. Carboys, lead, metal jacketed: (ICC-28) not over 15 gal. cap. Metal barrels or drums: (ICC-5, 5A, 5C, 5M) not over 110 gal. cap. (ICC-5D) rubber lined, not over 110 gal. cap. (ICC-5H) lead lined, not over 110 gal. cap. (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. (ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums: (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap. Mailing tubes (ICC-29) WIC of polyethylene, not over one quart cap. each. Mailing tubes (ICC-29) WIC of polyethylene, not over one quart cap. each. Portable tanks: (ICC-60) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations. </p>	<p>Stowage: "On deck protected." "On deck under cover." "On deck in open." Outside containers: Metal barrels or drums: (ICC-5, 5A, 5C) not over 110 gal. cap. (ICC-5D) rubber lined, not over 110 gal. cap. (ICC-5H) lead lined, not over 110 gal. cap. (ICC-5M) monel, not over 55 gal. cap. (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. (ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums: (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap. Mailing tubes (ICC-29) WIC of polyethylene, not over one quart cap. each. </p>	<p>Ferry stowage (AA) Outside containers: Metal barrels or drums: (ICC-1A, 1B, 1C, 1E) not over 110 gal. cap. (ICC-5D) rubber lined, not over 110 gal. cap. (ICC-5H) lead lined, not over 110 gal. cap. (ICC-5M) monel, not over 55 gal. cap. (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. (ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums: (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap. Mailing tubes (ICC-29) WIC of polyethylene, not over one quart cap. each. </p>	<p>Ferry stowage (BB) Outside containers: Carboys, glass, in boxes, kegs or plywood drums: (ICC-1A, 1B, 1C, 1E) not over 110 gal. cap. (ICC-5H) not over 6½ gal. cap. (ICC-1X) not over 6 gal. cap. Carboys, lead, metal jacketed: (ICC-28) not over 15 gal. cap. Metal barrels or drums: (ICC-5, 5A, 5C, 5M) not over 110 gal. cap. (ICC-5D) rubber lined, not over 110 gal. cap. (ICC-5H) lead lined, not over 110 gal. cap. (ICC-5M) monel, not over 55 gal. cap. (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. (ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums: (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap. Mailing tubes (ICC-29) WIC of polyethylene, not over one quart cap. each. </p>	<p>Ferry stowage (BB) Outside containers: Carboys, glass, in boxes, kegs or plywood drums: (ICC-1A, 1B, 1C, 1E) not over 110 gal. cap. (ICC-5H) not over 6½ gal. cap. (ICC-1X) not over 6 gal. cap. Carboys, lead, metal jacketed: (ICC-28) not over 15 gal. cap. Metal barrels or drums: (ICC-5, 5A, 5C, 5M) not over 110 gal. cap. (ICC-5D) rubber lined, not over 110 gal. cap. (ICC-5H) lead lined, not over 110 gal. cap. (ICC-5M) monel, not over 55 gal. cap. (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. (ICC-17H, 37A, 37B) STC, lined, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums: (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap. Mailing tubes (ICC-29) WIC of polyethylene, not over one quart cap. each. </p>

Table F—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Sodium chlorite solution (not exceeding 42% sodium chlorite).	A colorless, odorless liquid. Oxidizing agent. Miscible with water. If allowed to dry in contact with organic material fire may result. In event of spillage flush with large quantities of water. Observe containers carefully for signs of leakage, and reject any which are found leaking. Do not stow with organic materials, inflammable liquids (red label), or explosives.	White.	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass (ICC-1F) not over 13 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T, 2TL) not over 15 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1K) STC, for export only, not over 6 gal. cap. Steel barrels or drums: (ICC-5D) rubber-lined, not over 110 gal. cap. (ICC-37A) STC, WIC (ICC-2T, 2TL) not over 15 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL), not over 55 gal. cap. (ICC-6D, 37M (NRC)), WIC (ICC-2T or 2TL), not over 15 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) rubber-lined, not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC (ICC-2U) not over 15 gal. cap. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B, 12C) WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Fiber drum (ICC-21C) WIC (ICC-2T, 2S, 2SL, 2U) not over 30 gal. cap. Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea. Paper-faced expanded polystyrene board boxes (ICC-12R) with not more than six 5-pint glass bottles. For export shipment only: Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap. Tank cars complying with ICC regulations. For export shipment only: Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.</p>

Corrosive liquids—Continued

Required conditions for transportation—Continued		
Pasenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
	<p>Ferry stowage (AA)</p> <p>Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass (ICC-1K) not over 13 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T, 2TL) not over 15 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Steel barrels or drums: (ICC-5D) rubber-lined, not over 110 gal. cap. (ICC-37A) STC, WIC (ICC-2T, 2TL) not over 15 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL), not over 55 gal. cap. (ICC-6D, 37M (NRC)), WIC (ICC-2T or 2TL), not over 15 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) rubber-lined, not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC (ICC-2U) not over 15 gal. cap. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B, 12C) WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Fiber drum (ICC-21C) WIC (ICC-2T, 2S, 2SL, 2U) not over 30 gal. cap. Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea. Paper-faced expanded polystyrene board boxes (ICC-12R) with not more than six 5-pint glass bottles. Motor vehicle tank trucks complying with ICC regulations. For export shipment only: Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.</p>	<p>Ferry stowage (BB)</p> <p>Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass (ICC-1K) not over 13 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T, 2TL) not over 15 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Steel barrels or drums: (ICC-5D) rubber-lined, not over 110 gal. cap. (ICC-37A) STC, WIC (ICC-2T, 2TL) not over 15 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Cylindrical steel overpacks: (ICC-6D, 37M (NRC)), WIC (ICC-2S or 2SL), not over 55 gal. cap. (ICC-6D, 37M (NRC)), WIC (ICC-2T or 2TL), not over 15 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) rubber-lined, not over 50 gal. cap. (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC (ICC-2U) not over 15 gal. cap. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B, 12C) WIC, not over 65 lb. gr. wt. (ICC-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Fiber drum (ICC-21C) WIC (ICC-2T, 2S, 2SL, 2U) not over 30 gal. cap. Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea. Paper-faced expanded polystyrene board boxes (ICC-12R) with not more than six 5-pint glass bottles. Motor vehicle tank trucks complying with ICC regulations. For export shipment only: Carboys, glass, in plywood drums (ICC-1EX) STC, not over 6½ gal. cap.</p>

Table F—Classification
Corrosive liquids—Continued

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation—Continued			
			Cargo vessel	Passenger vessel	Ferry vessel, passenger or vehicle R. R. car ferry, passengers or vehicle	
Sulfur chloride (mono and di).	<i>A yellowish, red liquid having a penetrating odor. Fumes have an irritating effect on the eyes, lungs and mucous membrane and in sufficient quantities will be suffocating. Decomposed by water with separation of sulfur. Keep dry.</i>	White.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Carboys, boxed (ICC-1A) not over 13 gal. cap. Carboys in kegs (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 1 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-IX) STC, for export only, not over 8 gal. cap. Steel barrels or drums: (ICC-5A, 5B) not over 10 gal. cap. (ICC-17O) STC, not over 5 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 20 lb. net. wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 18A) WIC, not over 200 lb. gr. wt. Portable tanks (ICC-60) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations.</p> <p>Stowage: "On deck protected." "On deck under cover." Outside containers: Steel barrels or drums (ICC-5A, 5C) not over 55 gal. cap. (ICC-17F) STC, not over 66 gal. cap. Wooden boxes (ICC-15A, 15B, 15C, 16A, 18A) WIC, not over 200 lb. gr. wt. Tank cars complying with ICC regulations.</p>	Not permitted.....	Not permitted.....	Not permitted.....
Sulfur trioxide, stabilized.	<i>A corrosive liquid possessing a pungent odor. Fumes strongly in contact with air. Crystallizes at about 80° F. Liquid at higher temperatures. Decomposed by water with evolution of much heat and sometimes with explosive violence. Has a destructive effect upon organic materials similar to sulfuric acid but to a stronger degree. Irritating to mucous membrane and caustic to the skin. Do not stow over other cargo. Observe special requirements for stowage on board vessels also transporting explosives. Keep dry.</i>	White.....		Not permitted.....	Not permitted.....	Not permitted.....

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Sulfuric acid (oil of vitriol). NOTE: For bulk shipments, see subchapter I (Cargo and Miscellaneous Vessels) of this chapter.	<p>Strongly corrosive, dense, oily liquid; colorless to dark brown, depending on purity.</p> <p>Ordinary commercial (not pure) acid dissolves all metals, including platinum.</p> <p>Concentrated (65%) acid attacks most metals slowly.</p> <p>Dilute acid dissolves metals more rapidly, particularly if heated.</p> <p>Sulfuric acid rapidly disintegrates wood, textiles and organic materials in general and is extremely corrosive to flesh, producing serious and slow-healing wounds.</p> <p>Miscible with water in all proportions with evolution of heat.</p> <p>Stow well away from organic materials.</p> <p>Observe containers for any signs of leakage and reject any which are found leaking.</p> <p>In event of spillage, flush with large quantities of water.</p> <p>Do not accept for transportation if packed in the same container with any other substance.</p> <p>Must not be transported on any vessel carrying Class A or Class B explosives.</p> <p>Observe special requirements for stowage on board vessels which are also transporting Class C explosives.</p> <p>Sulfuric acid solutions of not over 25% concentrations, in inside containers of not more than 8 fluid ounces capacity each, packed and cushioned as specified by ICC regulations are exempt from specification packaging, marking other than name of contents, and labelling requirements.</p> <p>Sulfuric acid, fuming and oleum not permitted stowage "Under deck."</p>	White.....	<p>Stowage:</p> <p>"On deck protected."</p> <p>"On deck under cover."</p> <p>"Under deck" (Steel drums containing sulfuric acid only).</p> <p>Outside containers:</p> <p>For sulfuric acid of any concentration:</p> <p>Jugs in tubs (ICC-31) not over 2 gallons each and limited to 1 jug in each tub.</p> <p>Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt.</p> <p>Wooden boxes (ICC-13A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt.</p> <p>Fiberboard boxes (ICC-12B) WIC of compatible plastic not over 1 gal. cap., not over 75 lb. gr. wt.</p> <p>Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap.</p> <p>Plywood drums (ICC-22A, 22B) WIC of glass or earthenware, not over 1 gal. cap.</p> <p>Fiberboard boxes (ICC-12A) WIC, not over 80 lb. gr. wt.</p> <p>For sulfuric acid of concentrations of not less than 10% and not more than 11.5% (approximate):</p> <p>"Under deck" stowage not permitted.</p> <p>Metal barrel or drum (ICC-5C) stainless steel, not over 55 gal. cap.</p> <p>For sulfuric acid of concentrations not to exceed 100.5%:</p> <p>Carboys, boxed, (ICC-1A) not over 13 gal. cap.</p> <p>Carboys in kegs (ICC-1C) not over 13 gal. cap.</p> <p>Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap.</p> <p>Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap.</p> <p>Carboys, boxed (ICC-1K) not over 13 gal. cap.</p> <p>Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea.</p> <p>For sulfuric acid of concentrations not to exceed 98% (approximately 1.835 specific gravity (66° Baumé)):</p> <p>Metal barrels or drums (ICC-5H) lead lined, not over 110 gal. cap.</p> <p>Cylindrical steel overpacks: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap.</p> <p>(ICC-6D, 37M (NRC)), WIC ICC-2T, not over 15 gal. cap.</p> <p>Fiber drum (ICC-21C) WIC ICC-2T or 2U, not over 15 gal. cap.</p> <p>Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap.</p> <p>Plywood or wooden box or drum (ICC-15P, 22C) WIC (2T, 2TL) not over 15 gal. cap.</p>
Sulfuric acid, fuming (nordhansen). Oleum.		White.	

Corrosive liquids—Continued

Required conditions for transportation—Continued

Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Stowage: "On deck protected." Outside containers. For sulfuric acid of any concentration: Jugs in tubs (ICC-31) not over 2 gallons each and limited to 1 jug in each tub. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Plywood drums (ICC-22A, 22B) WIC of glass or earthenware, not over 1 gal. cap. Fiberboard boxes (ICC-12A) WIC, not over 80 lb. gr. wt. For sulfuric acid of concentrations not to exceed 100.5%: Carboys, boxed, (ICC-1A) not over 13 gal. cap. Carboys in kegs (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap. Carboys, boxed (ICC-1K) not over 13 gal. cap. Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea.	Ferry stowage (A A): Outside containers: For sulfuric acid of any concentration: Jugs in tubs (ICC-31) not over 2 gallons each and limited to 1 jug in each tub. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC of compatible plastic not over 1 gal. cap., not over 7½ lb. gr. wt. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Plywood drums (ICC-22A, 22B) WIC of glass or earthenware, not over 1 gal. cap. Fiberboard boxes (ICC-12A) WIC, not over 80 lb. gr. wt. For sulfuric acid of concentrations not to exceed 100.5%: Carboys, boxed, (ICC-1A) not over 13 gal. cap. Carboys in kegs (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap. Carboys, boxed (ICC-1K) not over 13 gal. cap. Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea. For sulfuric acid of concentration not to exceed 95% (approximately 1.835 specific gravity (66° Baumé)): Metal barrels or drums (ICC-5H) lead lined, not over 110 gal. cap. Cylindrical steel overpacks: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. (ICC-6D, 37M (NRC)), WIC ICC-2T, not over 15 gal. cap. Fiber drum (ICC-21C) WIC ICC-2T or 2U, not over 15 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (2T, 2TL) not over 15 gal. cap. Wooden boxes: (ICC-16A) WIC (ICC-2U) not over 15 gal. cap. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes (ICC-12P) WIC (ICC-2U polyethylene), not over 5 gal. cap. Paper-faced expanded polystyrene board boxes (ICC-12R) with not more than six 5-pint glass bottles.	Ferry stowage (B B): Outside containers: For sulfuric acid of any concentration: Jugs in tubs (ICC-31) not over 2 gallons each and limited to 1 jug in each tub. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Fiberboard boxes (ICC-12B) WIC of compatible plastic not over 1 gal. cap., not over 7½ lb. gr. wt. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Plywood drums (ICC-22A, 22B) WIC of glass or earthenware, not over 1 gal. cap. Fiberboard boxes (ICC-12A) WIC, not over 80 lb. gr. wt. For sulfuric acid of concentrations not to exceed 100.5%: Carboys, boxed, (ICC-1A) not over 13 gal. cap. Carboys in kegs (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass, (ICC-1E) not over 6½ gal. cap. Carboys, boxed (ICC-1K) not over 13 gal. cap. Polystyrene cases (ICC-33A) NRC with not more than 4 glass containers of not over 5 pint cap. ea. For sulfuric acid of concentration not to exceed 95% (approximately 1.835 specific gravity (66° Baumé)): Metal barrels or drums (ICC-5H) lead lined, not over 110 gal. cap. Cylindrical steel overpacks: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. (ICC-6D, 37M (NRC)), WIC ICC-2T, not over 15 gal. cap. Fiber drum (ICC-21C) WIC ICC-2T or 2U, not over 15 gal. cap. Metal crate with inside polyethylene carboy (ICC-1H) not over 15 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC (2T, 2TL) not over 15 gal. cap. Wooden boxes: (ICC-16A) WIC (ICC-2U) not over 15 gal. cap. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes (ICC-12P) WIC (ICC-2U polyethylene), not over 5 gal. cap. Paper-faced expanded polystyrene board boxes (ICC-12R) with not more than six 5-pint glass bottles.

Table F—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Sulfuric acid (oil of vitriol)—Continued Sulfuric acid, fuming: (nordhausen)—Con. Oleum—Continued			<p>Outside containers—Continued Wooden boxes: (ICC-16A) WIC (ICC-2U) not over 15 gal. cap. (ICC-16D) WIC (ICC-2U, 2TL, 2S, 2SL) not over 15 gal. cap.</p> <p>Fiberboard boxes (ICC-12P) WIC (ICC-2U polyethylene), not over 5 gal. cap.</p> <p>Paper-faced expanded polystyrene board boxes (ICC-12R) with not more than six 5-pint class bottles.</p> <p>For sulfuric acid of concentrations 77.5% (approximately 1.7019 specific gravity (59.18° Baumé)) or greater concentrations with or without inhibitor, provided such acid has a corrosive effect on steel measured at 100° F. no greater than 66° Baumé commercial sulfuric acid:</p> <p>Steel barrels or drums: (ICC-5A) not over 55 gal. cap. (ICC-5C) stainless steel, Types 304, 316, or 347, authorized only for sulfuric acid of 93 percent or greater strength.</p> <p>For sulfuric acid concentrations not to exceed 51% (approximately 1.408 specific gravity (42° Baumé)):</p> <p>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.</p> <p>For sulfuric acid of concentrations 68.25% (approximately 1.559 specific gravity (52° Baumé)) or greater concentrations, provided the corrosive effect on steel measured at 100° is not greater than that of 52° Baumé commercial sulfuric acid:</p> <p>Portable tanks (ICC-60) not over 8,000 lb. gr. wt.</p> <p>Tank cars complying with ICC regulations.</p> <p>For sulfuric acid concentrations not to exceed 51% (approximately 1.408 specific gravity (42° Baumé)):</p> <p>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.</p> <p>Portable tank, rubber-lined (ICC-60) not over 8,000 lb. gr. wt.</p> <p>Tank cars complying with ICC regulations.</p>

Corrosive liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
<p>Outside containers—Continued For sulfuric acid of concentrations 77.5% (approximately 1.7019 specific gravity (59.18° Baumé)) or greater concentrations with or without inhibitor, provided such acid has a corrosive effect on steel measured at 100° F. no greater than 66° Baumé commercial sulfuric acid:</p> <p>Steel barrels or drums: (ICC-5A) not over 55 gal. cap. (ICC-5C) stainless steel, Types 304, 316 or 347, authorized only for sulfuric acid of 93 percent or greater strength.</p> <p>For sulfuric acid concentrations not to exceed 51% (approximately 1.408 specific gravity (42° Baumé)):</p> <p>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.</p>	<p>Outside containers—Continued For sulfuric acid of concentrations 77.5% (approximately 1.7019 specific gravity (59.18° Baumé)) or greater concentrations with or without inhibitor, provided such acid has a corrosive effect on steel measured at 100° F. no greater than 66° Baumé commercial sulfuric acid:</p> <p>Steel barrels or drums: (ICC-5A) not over 55 gal. cap. (ICC-5C) stainless steel, Types 304, 316 or 347, authorized only for sulfuric acid of 93 percent or greater strength.</p> <p>(ICC-17F) STC, not over 55 gal. cap.</p>	<p>Outside containers—Continued For sulfuric acid of concentrations 77.5% (approximately 1.7019 specific gravity (59.18° Baumé)) or greater concentrations with or without inhibitor, provided such acid has a corrosive effect on steel measured at 100° F. no greater than 66° Baumé commercial sulfuric acid:</p> <p>Steel barrels or drums: (ICC-5A) not over 55 gal. cap. (ICC-5C) stainless steel, Types 304, 316 or 347, authorized only for sulfuric acid of 93 percent or greater strength.</p> <p>(ICC-17F) STC, not over 55 gal. cap.</p> <p>For sulfuric acid of concentrations 68.25% (approximately 1.559 specific gravity (52° Baumé)) or greater concentrations, provided the corrosive effect on steel measured at 100° is not greater than that of 52° Baumé commercial sulfuric acid:</p> <p>Portable tanks (ICC-60) not over 8,000 lb. gr. wt.</p> <p>Tank cars complying with ICC regulations.</p> <p>For sulfuric acid concentrations not to exceed 51% (approximately 1.408 specific gravity (42° Baumé)):</p> <p>Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap.</p> <p>Portable tank, rubber-lined (ICC-60) not over 8,000 lb. gr. wt.</p> <p>Tank cars complying with ICC regulations.</p>

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Sulfonyl chloride.....	<i>Colorless liquid.</i> <i>Pungent odor.</i> <i>Rapidly decomposed by alkalies and by water.</i> <i>Keep dry.</i>	White.....	<p>Stowage: "On deck protected." "On deck under cover."</p> <p>Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys, in plywood drums, glass (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Steel barrels or drums: (ICC-5A, 5B) not over 110 gal. cap. (ICC-17C) STC, not over 55 gal. cap. Nickel drums (ICC-5K) not over 110 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 18A) WIC, not over 200 lb. gr. wt. Portable tanks (ICC-60) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations.</p>
Thionyl chloride.....	<i>A colorless, incombustible liquid with a sharp odor.</i> <i>Fumes strongly in moist air to develop corrosive products.</i> <i>Avoid breathing fumes.</i> <i>Keep dry.</i>	White.....	<p>Stowage: "On deck protected." "On deck under cover."</p> <p>Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay, or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys, in plywood drums, glass (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Steel barrels or drums: (ICC-5A, 5B) not over 110 gal. cap. (ICC-17C) STC, not over 55 gal. cap. Nickel drums (ICC-5K) not over 110 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 18A) WIC, not over 200 lb. gr. wt. Portable tanks (ICC-60) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations.</p>

Corrosive 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:
Not permitted.....	Not permitted.....	Not permitted,

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Thiophosphoryl chloride.	<i>A clear, colorless liquid with penetrating odor. Reacts with moisture at slightly elevated temperatures. Avoid contact with tissue. Keep dry.</i>	White.....	<p>Stowage: “On deck protected.” “On deck under cover.”</p> <p>Outside containers: Metal barrels or drums (ICC-5A, 5C) not over 110 gal. cap. Steel barrels or drums (ICC-5H) lead-lined, not over 110 gal. cap. Nickel barrels or drums (ICC-5K) not over 110 gal. cap. Monel drums (ICC-5M) not over 10 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Portable tanks, lead-lined (ICC-60) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations.</p>
Tin tetrachloride anhydrous.	<i>A heavy, colorless, fuming corrosive liquid, which gives off fumes on exposure to air. Fumes are visible and are caustic and irritating to mucous membrane. Miscible with water with evolution of much heat. Avoid breathing fumes. Keep dry.</i>	White.....	<p>Stowage: “On deck protected.”</p> <p>Outside containers: Steel barrels or drums: (ICC-5A, 5B) not over 110 gal. cap. (ICC-17C) STC, not over 55 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Portable tanks (ICC-60) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations.</p>
Titanium sulfate solution containing not more than 45% sulfuric acid.	<i>Highly acidic solution of titanium sulfate. Hydrolyzes readily if heated. Keep cool.</i>	White.....	<p>Stowage: “On deck protected.” “On deck under cover.”</p> <p>Outside containers: Tank cars complying with ICC regulations.</p> <p>Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC not over 200 lb. gr. wt.</p>

Corrosive 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.
Not permitted.....	Not permitted.....	Not permitted.
Not permitted.....	Not permitted.....	Not permitted.

Table F—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Titanium tetrachloride...	<i>A heavy, clear, colorless liquid, fuming strongly in moist air. The fumes given off are visible and are irritating to mucous membranes. Miscible with cold water. Avoid breathing fumes.</i>	White.....	<p>Stowage: "On deck protected." Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Steel barrels or drums: (ICC-5A, 5B) not over 110 gal. cap. (ICC-17C) STC, not over 55 gal. cap. Wooden barrels or kegs (ICC-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. Portable tanks (ICC-60) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations. </p>

Corrosive 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 ¹

Table F—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Tris-(1-Aziridinyl) phosphine oxide (Triethyl-ene phosphoramide).	Solution which may or may not be inflammable depending on the solvent used.	White.....	<p>Stowage: "On deck protected." "On deck under cover." Outside containers: Carboys, boxed, glass earthenware, clay or stone (ICC-1A) not over 5 gal. cap. Carboys, boxed, lead (ICC-1B) not over 5 gal. cap. Carboys in kegs, glass earthenware, clay or stone (ICC-1C) not over 5 gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 5 gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 5 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 5 gal. cap. Metal barrels or drums: (ICC-5B, 6J, 37A) WIC ICC-2S, not over 5 gal. cap. (ICC-2S, not over 5 gal. cap. (ICC-17H, 37A, 37B) STC, WIL polyethylene, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. (ICC-17C, 17E) STC, not over 5 gal. cap. Rubber drums (ICC-43A) not over 5 gal. cap. Wooden kegs: (ICC-10A) asphalt, paraffin or wax lined not over 5 gal. cap. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC not over 5 gal. cap. (ICC-16D) WIC ICC-2T, 2TL or 2S, not over 5 gal. cap. Fiberboard boxes: (ICC-12A, 12B) WIC not over 5 gal. cap. (ICC-12P) WIC ICC-2U not over 5 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC ICC-2T, not over 5 gal. cap. Fiber drum (ICC-21C) WIC ICC-2S or 2U, not over 5 gal. cap.</p>

Corrosive liquids—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted.....	<p>Ferry stowage (AA). Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 5 gal. cap. Carboys, boxed, lead (ICC-1B) not over 5 gal. cap. Carboys, boxed, lead (ICC-1B) not over 5 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 5 gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 5 gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 5 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 5 gal. cap. Metal barrels or drums: (ICC-5B, 6J, 37A) WIC ICC-2S, not over 5 gal. cap. (ICC-17H, 37A, 37B) STC, WIL polyethylene, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. (ICC-17C, 17E) STC, not over 5 gal. cap. Rubber drums (ICC-43A) not over 5 gal. cap. Wooden kegs: (ICC-10A) asphalt, paraffin or wax lined not over 5 gal. cap. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 5 gal. cap. (ICC-16D) WIC ICC-2T, 2TL or 2S, not over 5 gal. cap. Fiberboard boxes: (ICC-12A, 12B) WIC, not over 5 gal. cap. (ICC-12P) WIC ICC-2U, not over 5 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC ICC-2T, not over 5 gal. cap. Fiber drum (ICC-21C) WIC ICC-2S or 2U, not over 5 gal. cap.</p>	<p>Ferry stowage (BB). Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 5 gal. cap. Carboys, boxed, lead (ICC-1B) not over 5 gal. cap. Carboys, boxed, lead (ICC-1B) not over 5 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 5 gal. cap. Carboys in plywood drums, glass (ICC-1E) not over 5 gal. cap. Carboys, boxed, glass, earthenware, clay or stone (ICC-1X) STC, for export only, not over 5 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 5 gal. cap. Metal barrels or drums: (ICC-5B, 6J, 37A) WIC-2S, not over 5 gal. cap. (ICC-17H, 37A, 37B) STC, WIL polyethylene, not over 5 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. (ICC-17C, 17E) STC, not over 5 gal. cap. Rubber drums (ICC-43A) not over 5 gal. cap. Wooden kegs: (ICC-10A) asphalt, paraffin or wax lined, not over 5 gal. cap. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 5 gal. cap. (ICC-16D) WIC ICC-2T, 2TL or 2S, not over 5 gal. cap. Fiberboard boxes: (ICC-12A, 12B) WIC, not over 5 gal. cap. (ICC-12P) WIC ICC-2U, not over 5 gal. cap. Plywood or wooden box or drum (ICC-15P, 22C) WIC ICC-2T, not over 5 gal. cap. Fiber drum (ICC-21C) WIC ICC-2S or 2U, not over 5 gal. cap.</p>

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Water treatment compound, liquid.	Usually a white syrupy liquid. May be alkaline and corrosive. May be corrosive to textiles and some metals. May cause painful burns to the skin and tissue. Soluble in water.	White.....	<p>Stowage: "On deck protected." "On deck in open." "On deck under cover." Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys, in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys, in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Steel barrels or drums: (ICC-5, 5A) not over 110 gal. cap. (ICC-5C) not over 110 gal. cap. (ICC-5D) not over 110 gal. cap. (ICC-17H, 37A, 37B) STC, not over 55 gal. cap. (ICC-37P) NRC, not over 5 gal. cap. Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICO-10A) asphalt, paraffin, or wax lined, not over 50 gal. cap. (ICO-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16A) WIC polyethylene 2U, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. (ICO-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap. Portable tanks (ICC-6O) not over 8,000 lb. gr. wt. Tank cars complying with ICC regulations. </p>

(Sec. 3, 88 Stat. 675, 50 U.S.C. 198) [CGFR 57-33, 22 F.R. 8648, Oct. 29, 1957, as amended by CGFR 57-49, 22 F.R. 10061, Dec. 14, 1957; CGFR 58-9, 23 F.R. 4901, June 28, 1958; CGFR 58-48, 23 F.R. 9637, Dec. 12, 1958; 59-14, 24 F.R. 5274, June 30, 1959; CGFR 59-44, 24 F.R. 9391, Nov. 21, 1959; CGFR 60-33, 25 F.R. 5240, June 11, 1960; CGFR 60-70, 25 F.R. 11212, 18169, Dec. 22, 1964; CGFR 65-17, 30 F.R. 7441, June 5, 1965; CGFR 65-52, 30 F.R. 15219, Dec. 9, 1965]

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 in open." "On deck under cover." Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys, in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Steel barrels or drums: (ICC-5, 5A) not over 110 gal. cap. (ICC-5C) not over 110 gal. cap. (ICC-17H, 37A, 37B) STC, not over 55 gal. cap. (ICO-37P) NRC, not over 5 gal. cap. Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined, not over 50 gal. cap. (ICO-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. (ICO-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap. </p>	Ferry stowage (AA): Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys, in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Steel barrels or drums: (ICC-5, 5A) not over 110 gal. cap. (ICC-5C) not over 110 gal. cap. (ICC-17H, 37A, 37B) STC, not over 55 gal. cap. (ICO-37P) NRC, not over 5 gal. cap. Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined, not over 50 gal. cap. (ICO-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. (ICO-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.	Ferry stowage (BB): Outside containers: Carboys, boxed, glass, earthenware, clay or stone (ICC-1A) not over 13 gal. cap. Carboys, boxed, lead (ICC-1B) not over 13 gal. cap. Carboys in kegs, glass, earthenware, clay or stone (ICC-1C) not over 13 gal. cap. Carboys, boxed, glass (ICC-1D) not over 6½ gal. cap. Carboys, in plywood drums, glass, (ICC-1E) not over 7 gal. cap. Carboys, boxed, glass, earthenware, clay, or stone (ICC-1X) STC, for export only, not over 6 gal. cap. Carboys, lead, metal-jacketed (ICC-28) not over 15 gal. cap. Steel barrels or drums: (ICC-5, 5A) not over 110 gal. cap. (ICC-5C) not over 110 gal. cap. (ICC-17H, 37A, 37B) STC, not over 55 gal. cap. (ICO-37P) NRC, not over 5 gal. cap. Metal drums (ICC-17C, 17E, 17F) STC, not over 55 gal. cap. Metal drums, rubber-lined (ICC-5D) not over 110 gal. cap. Metal drums, lead-lined (ICC-5H) not over 110 gal. cap. Monel drums (ICC-5M) not over 55 gal. cap. Cylindrical steel overpack: (ICC-6D, 37M (NRC)), WIC ICC-2S or 2SL, not over 55 gal. cap. Rubber drums (ICC-43A) not over 30 gal. cap. Wooden barrels or kegs: (ICC-10A) asphalt, paraffin, or wax lined, not over 50 gal. cap. (ICO-11A, 11B) WIC, not over 200 lb. net wt. Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 200 lb. gr. wt. (ICC-16D) WIC (ICC-2T, 2TL, 2S, 2SL) not over 15 gal. cap. Fiberboard boxes: (ICC-12A, 12B) WIC, not over 65 lb. gr. wt. (ICO-12P) WIC (ICC-2U polyethylene) not over 5 gal. cap. ea. Plywood or wooden box or drum (ICC-15P, 22C) WIC (ICC-2T) not over 15 gal. cap. Fiber drum (ICC-21C) WIC (ICC-2S, 2SL, 2U) not over 30 gal. cap.

Nov. 26, 1960; CGFR 61-11, 26 F.R. 3924, May 5, 1961; CGFR 61-44, 26 F.R. 11020, Nov. 23, 1961; CGFR 62-11, 27 F.R. 5285, June 5, 1962; CGFR 62-48, 27 F.R. 12135, Dec. 7, 1962; CGFR 63-19 28 F.R. 5382, May 30, 1963; CGFR 64-20, 29 F.R. 6794, May 23, 1964; CGFR 64-83, 29 F.R. 18169, Dec. 22, 1964; CGFR 65-17, 30 F.R. 7441, June 5, 1965; CGFR 65-52, 30 F.R. 15219, Dec. 9, 1965]

Subpart 146.24—Detailed Regulations Governing Compressed Gases

§ 146.24-1 Definitions of compressed gases.

(a) A compressed gas is defined by the Interstate Commerce Commission as any material or mixture having in the container an absolute pressure exceeding 40 psi at 70° F.; or regardless of the pressure at 70° F., having an absolute pressure exceeding 104 psi at 130° F.; or any liquid flammable material having a vapor pressure exceeding 40 psi absolute at 100° F. as determined by the Reid method covered by the American Society for Testing Materials Method of Test for Vapor Pressure of Petroleum Products (D-323).

(b) Any compressed gas as defined in paragraph (a) of this section shall be classified as an "inflammable compressed gas" if any one of the following occurs:

(1) Either a mixture of 13 percent or less (by volume) with air forms an inflammable mixture or the inflammable range with air is wider than 12 percent regardless of the lower limit. These limits shall be determined at atmospheric temperature and pressure. The method of sampling and test procedure shall be acceptable to the Interstate Commerce Commission.

(2) Using the Bureau of Explosives' Flame Projection Apparatus,¹ the flame projects more than 18 inches beyond the ignition source with valve opened fully, or, the flame flashes back and burns at the valve with any degree of valve opening.

(3) Using the Bureau of Explosives' Open Drum Apparatus,¹ there is any significant propagation of flame away from the ignition source.

(4) Using the Bureau of Explosives' Closed Drum Apparatus,¹ there is any

¹ A description of the Bureau of Explosives Flame Projection Apparatus, Open Drum Apparatus, Closed Drum Apparatus, and method of tests may be procured from the Bureau of Explosives, 63 Vesey Street, New York, New York 10000.

explosion of the vapor-air mixture in the cylinders and the compressed gas involved. The bill of lading or other shipping paper shall, when possible, identify the containers and shall carry the following certification:

(c) A "non-liquefied compressed gas" is a gas, other than gas in solution, which under the charged pressure is entirely gaseous at a temperature of 70° F.

(d) A "liquefied compressed gas" is a gas which, under the charged pressure, is partially liquid at a temperature of 70° F.

(e) A "compressed gas in solution" is a non-liquefied compressed gas which is dissolved in a solvent.

[CGFR 64-83, 29 F.R. 18169, Dec. 22, 1964]

§ 146.24-10 Mixtures of compressed gases and poisonous materials.

Any compressed gas mixtures containing poisonous articles Class A, Class B or Class C in such proportion that the mixture would be classed as a poisonous article under §§ 146.25-1 to 146.25-15, inclusive, must be shipped in cylinders and in accordance with the regulations prescribed for such poisonous mixtures.

[CGFR 52-8, 17 F.R. 6493, July 17, 1952]

§ 146.24-15 Containers.

(a) Compressed gases shall not be offered or accepted for transportation except when contained in metal cylinders unless otherwise specifically permitted in tanks, tank motor vehicles, tank cars or other containers by the provisions of § 146.24-100 of this subpart.

(b) Only containers that comply with Interstate Commerce Commission specifications and are charged in accordance with Interstate Commerce Commission regulations shall be accepted, except that foreign cylinders, which are permitted under conditions shown in paragraph (c) of this section, may be accepted on board vessels for export shipment.

(c) Cylinders of foreign manufacture received from foreign countries for charging with compressed gas may be accepted for transportation as indicated in the table for the particular character vessels involved provided such cylinders are retested and recharged in accordance with the Interstate Commerce Commission regulations applying to such

cylinders and the compressed gas involved. The bill of lading or other shipping paper shall, when possible, identify the containers and shall carry the following certification:

(d) These containers have been retested and labelled in accordance with the ICC requirements for export.

(e) The regulations in this part require that cylinders offered for transportation on board vessels shall have their valves protected by one of the following methods:

(1) By metal caps securely attached to the cylinders and of sufficient strength to protect the valve from injury during transit.

(2) By having the valves recessed into the cylinders or otherwise protected so that they will not be subject to a blow if the cylinder is dropped on a flat surface.

(3) By enclosing the cylinder in a box or crate of substantial construction so as to give proper protection to the valves. These outside containers shall be marked "Inside Packages Comply With Prescribed Specifications", and the appropriate label shall be affixed thereto.

(e) All containers partially or completely filled with a compressed gas shall have the proper label attached except as the regulations in this part may specifically exempt such labeling requirements.

(f) Mixtures containing compressed gases or gases including insecticides and refrigerant gases, which are noninflammable and nonpoisonous may be shipped in inside metal containers ICC-2P equipped with safety devices of a type approved by the Interstate Commerce Commission and packed in strong wooden or fiber boxes of such design as to protect valves from injury or accidental functioning under conditions incident to transportation. Pressure in the container must not exceed 85 psi absolute at 70° F. Each completed metal container filled for shipment must be heated until content reaches a minimum temperature of 130° F., without evidence of leakage, distortion, or other defect.

Each outside shipping container must be plainly marked "INSIDE CONTAINERS COMPLY WITH PRESCRIBED SPECIFICATION" and shall bear the proper label.

(g) Liquefied petroleum gas with a gas pressure not over 45 psig at 70° F. and 105 psig at 130° F. may be shipped in ICC-2P inside metal containers packed in strong wooden or fiber boxes of such design as to protect valves from injury or accidental functioning under conditions incident to transportation. Containers must be equipped with safety devices which will prevent rupture of the containers and dangerous projection of the closing devices when the containers are exposed to fire. Each completed container filled for shipment must have been heated until contents reached 130° F. without evidence of leakage, distortion or other defect. Liquefied petroleum gas with a gas pressure not over 26 psig at 70° F. and 84 psig at 130° F. may be shipped in ICC-2P inside metal containers not equipped with safety devices. Each outside container must be marked "Inside containers comply with prescribed specifications" and labeled with the "Red Gas" label.

(h) Engine starting fluid containing compressed gas or gases which are inflammable may be shipped in inside non-refillable metal containers of capacity not exceeding 32 cubic inches. Containers must be packaged in spec. 12B fiberboard boxes equipped with top and bottom pads which will provide three complete thicknesses of fiberboard on tops and bottoms of boxes, or spec. 15A, 15B, or 15C wooden boxes. Pressure in the container must not exceed 140 pounds per square inch, absolute, at 130° F. However, if the pressure exceeds 140 pounds per square inch, absolute, at 130° F., a spec. 2P container must be used. In any event, the metal container must be capable of withstanding without bursting a pressure of one and one-half times the pressure of the content at 130° F. The liquid content of the material and gas must not completely fill the con-

tainer at 130° F. Each completed container filled for shipment must have been heated until content reaches a minimum temperature of 130° F., without evidence of leakage, distortion, or other defect. Each outside shipping container must be plainly marked, "INSIDE CONTAINERS COMPLY WITH PRESCRIBED SPECIFICATION" and be labeled with "Red Gas" label.

[CGFR 52-8, 17 F.R. 6493, July 17, 1952, as amended by CGFR 57-33, 22 F.R. 8693, Oct. 29, 1957; CGFR 58-48, 23 F.R. 9637, Dec. 12, 1958; CGFR 60-70, 25 F.R. 11213, Nov. 26, 1960; CGFR 61-44, 26 F.R. 11020, Nov. 23, 1961; CGFR 64-83, 29 F.R. 18170, Dec. 22, 1964]

§ 146.24-20 Exemptions for compressed gases.

Compressed gases, except poisonous gases as defined in the regulations in this part, and except those listed in paragraph (e) of this section, are exempt from specification packaging, marking other than true shipping name of contents, and labeling requirements as follows:

(a) In containers of not more than 4 fluid ounces water capacity (7.22 cubic inches or less).

(b) In metal containers filled with non-dangerous material to not over 90 percent capacity at 70° F., then charged with noninflammable, non-liquefied gas; each container must be tested to three times the gas pressure at 70° F., and, when refilled and reshipped, must be retested at this pressure before each shipment, provided one of the following conditions is met:

(1) Container is not over 1 quart capacity charged to not over 170 psig at 70° F.

(2) Container is not over 30 gallons capacity charged to not over 75 psig pressure at 70° F.

(c) In inside nonrefillable metal containers charged with a solution of ma-

terials and compressed gas or gas which are nonpoisonous, provided all of the following conditions are met:

(1) Capacity must not exceed 32 cubic inches.

(2) Pressure in container must not exceed 75 pounds per square inch absolute at 70° F.; however, if the pressure exceeds 55 pounds per square inch at 70° F., an ICC specification 2P container must be used.

(3) Liquid content of the material and gas must not completely fill the container at 130° F.

(4) If the contents are inflammable as provided in § 146.24-1(b) (2) (3) (4) as determined by Bureau of Explosives method, the flash point must not be less than 20° F.

(5) Each completed container filled for shipment must be heated until content reaches a minimum temperature of 130° F., without evidence of leakage, distortion or other defect.

(d) In inside nonrefillable metal containers charged with a solution of nonpoisonous and noninflammable materials and non-liquefied compressed gas, provided all the following conditions are met:

(1) Capacity does not exceed 31.8 cubic inches (17.6 fluid ounces).

(2) Pressure in container does not exceed 140 pounds per square inch absolute at 130° F.

(3) The metal container must be capable of withstanding without bursting a pressure of two times the pressure of the container at 70° F. or one and one-half times the pressure of the container at 130° F., whichever is greater.

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

(1) Argon.

(2) Engine starting fluid.

(3) Oxygen, pressurized liquid.

[CGFR 64-83, 29 F.R. 18170, Dec. 22, 1964]

§ 146.24-21 Exemptions for foodstuffs, soap, cosmetics, beverages, biologicals, electronic tubes and audible fire alarm systems.

Compressed gases, except poisonous gases as defined in the regulations in this part, and except those listed in paragraph 146.24-20(e), are exempt from specification packaging, marking other than true shipping name of contents, and labeling requirements as follows:

(a) Carbonated beverages.

(b) Foodstuffs or soaps in metal cans with soluble or emulsified compressed gas, provided the pressure in the container does not exceed 115 pounds per square inch absolute at 70° F., or 150 pounds per square inch absolute at 130° F. The metal container must be capable of withstanding without bursting a pressure of two times the pressure of contents at 70° F., or one and one-half times the pressure of the contents at 130° F., whichever is greater.

(c) Inside nonrefillable metal containers charged with compressed gas and a solution which is nonpoisonous and noninflammable containing:

(1) A biological product, or

(2) A medical preparation which will be deteriorated by heat.

The capacity of each inside container shall not exceed 31.83 cubic inches (17.6 fluid ounces). Pressure in the container not to exceed 55 pounds per square inch absolute at 70° F., and the liquid content of the product and gas must not completely fill the container at 130° F. One completed container out of each lot of 500 or less, filled for shipment, must have been heated, until content reached a minimum temperature of 130° F., without evidence of leakage, distortion or other defect.

(d) Electronic tubes of not more than 30 cubic inch volume charged with gas to a pressure of not more than 35 pounds per square inch gauge.

(e) Inside metal containers of a capacity not to exceed 35 cubic inches, charged with noninflammable, nonpoisonous liquefied compressed gas to be used in conjunction with audible fire alarm systems. Pressure in the container must not exceed 85 pounds per square inch absolute at 70° F. The completely assembled containers must be capable of withstanding without bursting a pressure of 100 pounds per square inch absolute. The liquid portion of the gas must not completely fill the container at 130° F.

[CGFR 64-83, 29 F.R. 18170, Dec. 22, 1964]

§ 146.24-22 Exemptions for fire extinguishers and component parts thereof.

Fire extinguishers and component parts thereof are exempt from specifications packaging, marking other than true name of contents, and labeling requirements provided all the following conditions are met:

(a) Compressed gas in the container is for the purpose of expelling the fire extinguishing contents.

(b) The gas must be nonliquefied in containers exceeding 30 cubic inches.

(c) Must be shipped as inside containers.

(d) The container under stored pressure shall have an internal volume not exceeding 1,100 cubic inches.

(e) The pressure in the container shall not exceed 200 pounds per square inch absolute at 70° F.

(f) The contents shall be noninflammable, nonpoisonous, and noncorrosive as defined in the regulations in this part.

(g) Except as provided in paragraph (h) of this section, each container must be tested before shipment to at least three times the pressure in the container at 70° F. when charged and not less than 120 pounds per square inch absolute, and before refilling and reshipping must be retested at this pressure before each

shipment. The container shall show no leakage or damage when subjected to this pressure.

(h) When ICC specification 2P inside metal containers are used for pressures not exceeding 85 pounds per square inch absolute, at 70° F. or 115 pounds per square inch absolute, at 130° F., the test requirements of paragraph (g) of this section do not apply, but each container must be capable of having the contents heated to 130° F. without evidence of leakage or permanent distortion.

[CGFR 64-83, 29 F.R. 18170, Dec. 22, 1964]

§ 146.24-25 Stowage on board vessels.

(a) All compressed gases 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 table forming § 146.24-100, and the detailed requirements for stowage shown therein.

(b) The master or person in charge of the vessel shall ensure that the equipment used for loading or unloading compressed gases is adequate to prevent cylinders from falling during handling operations. Such equipment may be a tray with sideboards of sufficient height to prevent cylinders from falling off; tray with small mesh net; pallet with cylinders secured in place; or a bridle sling with a round turn at each end of load.

[CGFR 55-20, 20 F.R. 4076, June 10, 1955]

§ 146.24-27 Use of power-operated industrial trucks in spaces containing compressed gases.

(a) Power-operated industrial trucks with designations EX, EE, GS, LPS, and DS (see § 146.09-15) may be used in spaces in which flammable compressed gases are stowed including handling thereof.

(b) Any approved power-operated industrial truck (see § 146.09-15) may be used in spaces in which non-inflammable compressed gases are stowed, including the handling thereof, unless otherwise restricted by regulations in this part.

[CGFR 61-44, 26 F.R. 11028, Nov. 28, 1961]

§ 146.24-30 "On deck" stowage.

Compressed gases which are permitted any type of "On deck" stowage by the provisions of the table forming § 146.24-100, shall be properly secured, when stowed, in a manner satisfactory to the master or other person in charge of the vessel consistent with the following conditions:

(a) That the vessel has open space on deck suitable for such purposes of stowage.

(b) That the vessel has sufficient freeboard to afford structural protection from seas or adequate protection and security by bulwarks.

(c) Cylinders shall be stowed on their sides unless boxes, cribs or racks are provided for vertical stowage.

(d) Cylinders shall not be carried "On deck" over holds containing coal.

(e) When stowed "On deck protected" the cylinders shall be protected from the direct rays of the sun by means of structural erections or awnings. Tarpaulins covering cylinders and in contact therewith are not considered adequate protection. Protection by use of wood dunnage is permitted.

[CGFR 58-54, 18 F.R. 8239, Dec. 16, 1953]

§ 146.24-35 "Under deck" stowage.

(a) Cylinders stowed "Under deck" shall be stowed in cool compartments or holds either capable of being ventilated or constructed gas tight, protected from open flame and any source of artificial heat, clear of living spaces, either crew or passenger, and readily accessible from hatches or cargo holds.

[CGFR 52-8, 17 F.R. 6498, July 17, 1952]

§ 146.24-40 Stowage clearance.

Containers of compressed gas stowed either "On deck" or "Under deck" on board vessels shall be kept from direct contact with the vessel's side or bulwark by means of dunnage or shoring or other effective means.

[CGFR 53-54, 18 F.R. 8239, Dec. 16, 1953]

§ 146.24-50 Stowage securing means.

(a) Cylinders of compressed gas stowed on their sides shall be dunnaged under the first tier so that they will not rest directly on a steel or iron deck. Each additional tier shall be stowed in the cantines of the lower tier and in no case shall cylinders be stowed bilge to bilge or directly on top of one another. The tiers may be stepped back and the ends alternated in order to clear the flange. Suitable lashing shall be provided to prevent movement in any direction.

(b) When cylinders are stowed in a vertical position they shall be stowed in a block, cribbed or boxed in with suitable sound lumber and the box or crib dunnaged at least 4 inches off the steel or iron deck. The cylinders in the box or crib shall be braced to prevent any movement. The box or crib shall be securely chocked and lashed to prevent movement in any direction.

(c) Lashings in all cases shall be secured to pad eyes or other permanent structural parts of the vessel. Pipe rails shall not be used to secure lashings.

[CGFR 53-54, 18 F.R. 8239, Dec. 16, 1953]

§ 146.24-55 Stowage of compressed gases with explosives and other dangerous articles.

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

(a) Inflammable compressed gases shall not be stowed "Under deck." When stowed "On deck" with other dangerous cargo a distance of at least 25 feet shall be maintained between the inflammable compressed gases and any other dangerous cargo.

(b) Inflammable compressed gases shall not be stowed "On deck" on a vessel carrying Class A or Class B explosives unless the engine and boiler room spaces or the bridge structural erections intervene.

(c) Non-inflammable compressed gases shall not be stowed in the same hold or compartment with Class A or Class B explosives.

(d) Inflammable compressed gases shall not be stowed "On deck" immediately over a hold or compartment containing Class C explosives.

(e) Cylinders of non-inflammable compressed gases shall not be overstowed by containers of inflammable liquids.

(f) Cylinders of inflammable compressed gases shall not be stowed "On deck" over a hold containing inflammable liquids in excess of 1 ton.

(g) Cylinders of non-inflammable compressed gases shall not be overstowed by containers of inflammable solids.

(h) Cylinders of non-inflammable compressed gases shall not be overstowed by containers of oxidizing materials.

(i) Cylinders of non-inflammable compressed gases shall not be overstowed by or stowed adjacent to containers of corrosive liquids.

(j) Cylinders of non-inflammable compressed gases shall not be overstowed by containers of poisonous articles.

(k) Cylinders of non-inflammable compressed gases shall not be overstowed by containers of hazardous articles.

[CGFR 59-14, 24 F.R. 5274, June 30, 1959, as amended, CGFR 61-11, 26 F.R. 3924, May 5, 1961]

§ 146.24-60 Stowage of cylinders containing chlorine.

Cylinders or other containers of chlorine shall not be stowed in the same compartment with sodium metallic, potassium metallic, phosphorus, copper or brass leaf or sheets, powdered antimony, turpentine, ammonia, finely divided organic material, nor with the following compressed gases: coal gas, hydrogen, or acetylene.

[CGFR 52-8, 17 F.R. 6495, July 17, 1952]

§ 146.24-65 Instructions regarding lights and smoking.

Instructions shall be given by the master or other person in charge of the vessel to all members of the crew regarding the hazards of inflammable gases. The use of open flame lights and smoking is prohibited in the

vicinity of deck cargoes of inflammable compressed gases. The master or other person in charge of this vessel shall cause "NO SMOKING" warning signs to be posted in this vicinity of such deck cargoes.

[CGFR 52-8, 17 F.R. 6495, July 17, 1952]

§ 146.24-70 Leaking cylinders not accepted.

A leaking cylinder or other container of compressed gas shall not be accepted for transportation.

[CGFR 52-8, 17 F.R. 6495, July 17, 1952]

§ 146.24-75 Report of leaking or damaged cylinders.

(a) The owner, charterer, agent, master or person in charge of a vessel shall report in writing each occurrence of leaking or damaged cyl-

§ 146.24-100 Table G—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Acetylene.....	<i>Inflammable gas.....</i> <i>Violently explosive over a wide range of mixtures with air. (3 to 75% for pure acetylene.)</i> <i>Slightly lighter than air.</i> <i>Pressure usually less than 400 lb. per square inch at 130° F.</i>	Red gas.....	Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)
Air, compressed.....	<i>Non-inflammable gas.....</i> <i>Pressure usually about 2,250 lb. per square inch at 130° F.</i>	Green gas.....	Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)
Anhydrous ammonia..... Ammonia, anhydrous. Note: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.	<i>Noninflammable gas.....</i> <i>Toxic and suffocating even in small quantities (less than 1%). Pungent odor gives warning of dangerous quantities in air.</i> <i>Lighter than air.</i> <i>Weakly inflammable and explosive with about 16 to 27% in air, when involved in a fire at a temperature about 1,100° F.</i> <i>Pressure about 515 lb. per square inch at 130° F.</i>	Green gas.....	Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Tank cars complying with ICC regulations. Tanks (ICC-106A500, 106A500X). Tank motor vehicle complying with ICC motor carrier regulations. Authorized only for stowage: "On deck protected," or "On deck under cover." Portable tanks (ICC-51) not over 8,000 lb. gr. wt.

inders of compressed gas to the District Commander of the United States Coast Guard or his authorized representative, for the district in which the substance was taken on board the vessel, setting forth a description of the container, and specification markings appearing thereon, the damage sustained, when possible a reason for the damage, the name and address of the consignor and consignee (or shipping mark) and a statement relative to the disposition of the container.

(b) When the failure of a cylinder of compressed gas results in a casualty involving loss of life, personal injury or damage to the vessel no report other than those required by the provisions of §§ 136.05-1 to 136.05-20, inclusive, of this chapter, shall be made.

[CGFR 52-8, 17 F.R. 6495, July 17, 1952]

Compressed gases.

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (AA)..... Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (BB). Containers: Cylinders.
Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (AA)..... Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (BB). Containers: Cylinders.
Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (AA)..... Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (BB). Containers: Cylinders.
Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Tank motor vehicle complying with ICC motor carrier regulations. Tanks (ICC-106A500, 106A500X). Tank motor vehicle complying with ICC motor carrier regulations.	Tank cars complying with ICC regulations. Tanks (ICC-106A500, 106A500X). Tank motor vehicle complying with ICC motor carrier regulations. Portable tanks (ICC-51) not over 8,000 lb. gr. wt.

Table G—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Aqua ammonia solution containing anhydrous ammonia.	Nonflammable gas. Toxic and suffocating even in small quantities. Lighter than air.	Green gas.	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>“Tween decks readily accessible.”</p> <p>“Under deck away from heat.”</p> <p>Containers:</p> <p>Cylinders complying with ICC regulations.</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p> <p>Tank cars complying with ICC regulations.</p>
Argon.	Noninflammable gas. Nonpoisonous, but excessive quantities in an enclosed space may cause suffocation. Odorless. Heavier than air. Pressure usually about 2,350 lb. per square inch at 150° F.	Green gas.	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>“Tween decks.”</p> <p>“Under deck away from heat.”</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p> <p>Tank cars complying with ICC regulations.</p>
Argon, pressurized liquid.	Noninflammable. Liquid pressurized with a nonflammable, non-toxic expellant gas. Excessive quantities in a closed space may cause suffocation.	Green gas.	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>“Tween decks.”</p> <p>“Under deck away from heat.”</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p> <p>Tank cars complying with ICC regulations.</p>
Boron trifluoride.	Noninflammable gas. Slightly poisonous. Suffocating. Possesses easily detectable odor. Heavier than air. Boiling point -150° F. Pressure usually about 2,350 to 2,600 lb. per square inch at 150° F.	Green gas.	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>“Tween decks readily accessible.”</p> <p>“Under deck away from heat.”</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p>

Compressed gases—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>“Tween decks readily accessible.”</p> <p>Containers:</p> <p>Cylinders complying with ICC regulations.</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p> <p>Tank motor vehicles complying with ICC regulations.</p>	<p>Ferry stowage (AA).</p> <p>Containers:</p> <p>Cylinders complying with ICC regulations.</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p>	<p>Ferry stowage (BB).</p> <p>Containers:</p> <p>Cylinders complying with ICC regulations.</p> <p>Tank cars complying with ICC regulations.</p>
<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>“Tween decks.”</p> <p>“Under deck away from heat.”</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p>	<p>Ferry stowage (AA).</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p>	<p>Ferry stowage (BB).</p> <p>Containers:</p> <p>Cylinders.</p> <p>Tank cars complying with ICC regulations.</p>
<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>“Tween decks.”</p> <p>“Under deck away from heat.”</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p>	<p>Ferry stowage (AA).</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p>	<p>Ferry stowage (BB).</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p>
Not permitted.	Not permitted.	Not permitted.

Table G—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Butadiene, inhibited.....	<p><i>Inflammable gas.</i></p> <p>A hydrocarbon liquid or compressed gas with distinct odor. Forms explosive or inflammable mixtures in air. Boiling point about 24° F. Insoluble in water.</p> <p>Pressure usually about 95 lb. per square inch at 150° F.</p> <p>Heavier than air.</p>	Red gas.....	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</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>Tank cars complying with ICC regulations (trainships only).</p> <p>Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only).</p>
Carbon dioxide.....	<p><i>Noninflammable gas.</i></p> <p>Will cause suffocation if breathed in excessive quantities.</p> <p>Odorless.</p> <p>Heavier than air.</p>	Green gas.....	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>“Tween decks readily accessible.”</p> <p>“Under deck away from heat.</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p> <p>Tank cars complying with ICC regulations.</p> <p>Tank motor vehicles complying with ICC motor carrier regulations.</p>
Carbon dioxide, liquefied.....	<p>Pressure usually about 2,880 lb. per square inch at 150° F.</p> <p>Do not stow with cyanides.</p>	Green gas.....	<p>Authorized only for stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>Special tank containers (approval required).</p> <p>Portable tanks (ICC-51) not over 8,000 lb. gr. wt.</p>
Carbon dioxide gas, liquefied (mining device). Carbon dioxide-nitrous oxide mixture.	<p>Carbon dioxide mining devices consist of a long, small diameter cylinder charged with carbon dioxide.</p> <p>In actual use heat is applied to the unit by means of cartridge containing a low explosive.</p> <p>Hazards same as for “Carbon dioxide”.</p> <p><i>Noninflammable gas.</i></p> <p>A mixture of carbon dioxide and nitrous oxide.</p> <p>Heavier than air.</p> <p>See individual gases for hazards.</p>	Green gas.....	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>“Tween decks.”</p> <p>“Under deck away from heat.</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p>
Carbon dioxide-oxygen mixture.	<p><i>Noninflammable gas.</i></p> <p>Colorless, odorless gas.</p> <p>Main hazard is that of oxygen present. Hazard decreases with increase of carbon dioxide.</p> <p>Heavier than air.</p> <p>See individual gases for hazards.</p>	Green gas.....	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>“Tween decks.”</p> <p>“Under deck away from heat.</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p>
Carbon monoxide.....	<p><i>Inflammable gas.</i></p> <p>Poisonous, even in small quantities (much less than 1%).</p> <p>Inflammable and explosive with about 12 to 74% in air.</p> <p>Odorless.</p> <p>About as heavy as air.</p> <p>Pressure usually about 2,800 lb. per sq. in. at 150° F.</p>	Red gas.....	<p>Stowage:</p> <p>“On deck protected.”</p> <p>“On deck under cover.”</p> <p>Containers:</p> <p>Cylinders:</p> <p>(With valve protection cap.)</p> <p>(With dished heads.)</p> <p>(Boxed.)</p>

Compressed gases—Continued

Table G—Classification:

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Chlorine..... Note: For bulk shipments, see Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.	Noninflammable gas..... Poisonous: <i>prungent odor; gives warning of dangerous quantities in air.</i> Even in small quantities has a choking, smothering effect and is very injurious to membranes and tissues. Much heavier than air. May cause combustion of acetylene, turpentine, and finely divided organic material. Pressure about 210 lb. per sq. in. at 150° F.	Green gas.....	<p>Stowage:</p> <p>“On deck in open.” “On deck protected.” “On deck under cover.” “Tween decks readily accessible.” “Under deck away from heat.”</p> <p>Containers:</p> <p>Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Tank cars complying with ICC regulations.</p> <p>Tanks (ICC-106A500, 106A-500X).</p>

Compressed gases—Continued

Required conditions for transportation—Continued		
Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Not permitted except in an emergency involving life or health, and upon application made to the Commandant of the Coast Guard, limited shipments of chlorine may be made under such conditions as the said Commandant in his judgment may authorize.	Not permitted except in an emergency involving life or health, and upon application made to the Commandant of the Coast Guard, limited shipments of chlorine may be made under such conditions as the said Commandant in his judgment may authorize.	Not permitted except in an emergency involving life or health, and upon application made to the Commandant of the Coast Guard, limited shipments of chlorine may be made under such conditions as the said Commandant in his judgment may authorize.

Table G—Classification of compressed gases—Continued

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation	Required conditions for transportation—Continued		
				Cargo vessel	Passenger vessel	Ferry vessel, passenger or vehicle
Compressed gases, N. O. S.	Inflammable gas or noninflammable gas.	Red gas or green gas (appropriate one).	<p>Stowage: “On deck protected.” “On deck under cover.”</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Wooden boxes: (ICC-15A, 15B, 15C, 16A, 19A) WIC, not over 100 lb. gr. wt. Inside containers must comply with ICC requirements.</p> <p>Fiberboard boxes: (ICC-12B) WIC, not over 65 lb. gr. wt. Inside containers must comply with ICC regulations.</p>	Not permitted.....	Not permitted.....	Not permitted.....
Crude nitrogen fertilizer solution.	Noninflammable gas.....	Green gas.....	<p>Stowage: “On deck.” “Under deck away from heat.”</p> <p>Containers: Tank cars complying with ICC regulations.</p>	(Shipped only in tank cars).....	(Shipped only in tank cars).....	Ferry stowage (BB). Containers: Tank cars complying with ICC regulations.
Cyclopropane.....	Inflammable gas..... Inflammable and explosive with about 8 to 10% in air. Anesthetic. Much heavier than air. Pressure about 200 lb. per sq. in. at 150° F.	Red gas.....	<p>Stowage: “On deck protected.” “On deck under cover.”</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	<p>Stowage: “On deck protected.” “On deck under cover.”</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	Ferry stowage (AA).....	Ferry stowage (BB). Containers: Cylinders.
Dichlorodifluoromethane.	Noninflammable gas..... Nonpoisonous but excessive quantities in an enclosed space may cause suffocation. Odorless. Very much heavier than air. Decomposes when passed through flames, evolving hydrochloric and hydrofluoric acid fumes.	Green gas.....	<p>Stowage: “On deck protected.” “On deck under cover.” “Tween decks readily accessible.” “Under deck away from heat.”</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Tank cars complying with ICC regulations.</p> <p>Tanks (ICC-106A500, 106A500X). Portable tanks (ICC-51) not over 8,000 lb. gr. wt.</p>	<p>Stowage: “On deck protected.” “On deck under cover.” “Tween decks readily accessible.” “Cargo hatch trunkway.”</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Tanks (ICC-106A500, 106A500X). Portable tanks (ICC-51) not over 8,000 lb. gr. wt.</p>	Ferry stowage (AA).....	Ferry stowage (BB). Containers: Cylinders. Tank cars complying with ICC regulations. Tanks (ICC-106A500, 106A500X). Portable tanks (ICC-51) not over 8,000 lb. gr. wt.
Dichlorodifluoromethane-dichlorotetrafluoroethane mixture. Dichlorodifluoromethane-monochlorodifluoromethane mixture. Dichlorodifluoromethane-trichloromonofluoromethane-monochlorodifluoromethane mixture. Dichlorodifluoromethane-trichlorotrifluoroethane mixture.	Noninflammable gas..... Non-toxic but excessive quantities in an enclosed space may cause suffocation.	Green gas.....	<p>Stowage: “On deck protected.” “On deck under cover.” “Tween decks readily accessible.” “Under deck away from heat.”</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Tank cars complying with ICC regulations.</p> <p>Authorized for dichlorodifluoromethane-dichlorotetrafluoroethane mixture:</p> <p>Portable tanks: (ICC-51) not over 8,000 lb. gr. wt.</p>	<p>Stowage: “On deck protected.” “On deck under cover.” “Tween decks readily accessible.” “Cargo hatch trunkway.”</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Authorized for dichlorodifluoromethane-dichlorotetrafluoroethane mixture:</p> <p>Portable tanks: (ICC-51) not over 8,000 lb. gr. wt.</p>	Ferry stowage (AA).....	Ferry stowage (BB). Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)

Table G—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation			
			Cargo vessel	Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Dichlorodifluoromethane and difluoroethane mixture (constant boiling mixture).	Hazards similar to "Dichlorodifluoromethane." See above.	Green gas.....	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Tank cars complying with ICC regulations. Tanks (ICC-106A500, 106A500X). Portable tanks: (ICC-51) not over 8,000 lb. gr. wt.</p>	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." "Cargo hatch trunkway." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Tanks (ICC-106A500, 106A500X). Portable tanks: (ICC-51) not over 8,000 lb. gr. wt.</p>	Ferry stowage (AA)..... Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Tanks (ICC-106A500, 106A500X). Portable tanks: (ICC-51) not over 8,000 lb. gr. wt.	Ferry stowage (BB). Containers: Cylinders. Tank cars complying with ICC regulations. Tanks (ICC-106A500, 106A500X). Portable tanks: (ICC-51) not over 8,000 lb. gr. wt.
Dichlorodifluoromethane-monofluorotrichloromethane mixture.	<i>Noninflammable gas mixture.</i> <i>Ether-like odor.</i> <i>Excessive quantities in an enclosed space may cause suffocation.</i>	Green gas.....	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Tank cars complying with ICC regulations. Tanks (ICC-106A500, 106A500X, 110A500W). Portable tanks: (ICC-51) not over 8,000 lb. gr. wt.</p>	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." "Cargo hatch trunkway." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Tanks (ICC-106A500, 106A500X, 110A500W). Portable tanks: (ICC-51) not over 8,000 lb. gr. wt.</p>	Ferry stowage (AA)..... Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Tanks (ICC-106A500, 106A500X, 110A500W). Portable tanks: (ICC-51) not over 8,000 lb. gr. wt.	Ferry stowage (BB). Containers: Cylinders. Tank cars complying with ICC regulations. Tanks (ICC-106A500, 106A500X, 110A500W). Portable tanks: (ICC-51) not over 8,000 lb. gr. wt.
Diffluoroethane (ethylene fluoride).	<i>Inflammable gas.</i> <i>Colorless and practically odorless.</i> <i>Chemically and thermally stable.</i> <i>Forms flammable mixtures with air but will not ignite spontaneously.</i> <i>Nonpoisonous but may be suffocating.</i> <i>Much heavier than air.</i> <i>Low pressure gas.</i>	Red gas.....	<p>Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Authorized for stowage "On deck in open" only. Tank cars complying with ICC regulations (trainships only). Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only).</p>	<p>Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	Ferry stowage (AA)..... Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (BB). Containers: Cylinders.
Diffluoromonochloroethane.	<i>Inflammable gas.</i> <i>Colorless and practically odorless.</i> <i>Chemically and thermally stable.</i> <i>Forms flammable mixtures with air but will not ignite spontaneously.</i> <i>Nonpoisonous but may be suffocating.</i> <i>Much heavier than air.</i> <i>Low pressure gas.</i>	Red gas.....	<p>Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Authorized for stowage "On deck in open" only. Tank cars complying with ICC regulations (trainships only).</p>	<p>Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	Ferry stowage (AA)..... Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (BB). Containers: Cylinders.

Table G—Classification
Compressed gases—Continued

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation—Continued			
			Cargo vessel	Passenger vessel	Ferry vessel, passenger or vehicle	
			R. R. car ferry, passenger or vehicle			
Dimethylamine, anhydrous.	<i>Inflammable gas.</i> <i>Colorless gas with a strong ammonia odor.</i> <i>Forms explosive and inflammable mixtures with air.</i> <i>Heavier than air.</i> <i>Very soluble in water, forming a strongly alkaline solution.</i> <i>Low pressure gas.</i>	Red gas.	Stowage: “On deck protected.” “On deck under cover.” Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Authorized for stowage “On deck in open” only: Portable tanks (ICC-51) not over 20,000 lb. gr. wt. (End length dip tube gauging devices are not acceptable). Tank cars complying with ICC regulations (trainship only).	Not permitted.	Not permitted.	Not permitted.

Table G—Classification

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation
			Cargo vessel
Dimethyl ether.....	<i>Inflammable gas.</i> <i>Inflammable and explosive with about 2 to 50% in air.</i> <i>Anesthetic.</i> <i>Heavier than air.</i> <i>Pressure about 170 lb. per sq. inch at 150° F.</i>	Red gas.....	Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Authorized for stowage "On deck in open" only: Tank cars complying with ICC regulations (trainships only).
Engine starting fluid.....	<i>An inflammable fluid containing an inflammable compressed gas or gases as an expellant.</i> <i>Used as a fuel for starting engines. See also §146.24-15(h).</i>	Red gas.....	Stowage: "On deck protected." "On deck under cover." Containers: Cylinders complying with ICC regulations. (With valve protection cap.) (With dished heads.) (Boxed.)
Ethane.....	<i>Inflammable gas.</i> <i>Inflammable and explosive with about 3 to 18% in air.</i> <i>Odorless and about as heavy as air.</i> <i>Pressure usually about 2,500 lb. per sq. in. at 150° F.</i>	Red gas.....	Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)
Ethylene.....	<i>Inflammable gas.</i> <i>Inflammable and explosive with about 2 to 88% in air.</i> <i>Anesthetic.</i> <i>About as heavy as air.</i> <i>Pressure usually about 2,500 lb. per sq. inch at 150° F.</i>	Red gas.....	Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)
Fertilizer, ammoniating solution, containing free ammonia.....	<i>Noninflammable gas.</i>	Green gas.....	Stowage: "On deck." "Under deck away from heat." Containers: Tank cars complying with ICC regulations.
Fire extinguishers.....	<i>Fire extinguishers containing non-liquefied gas for purpose of expelling fire extinguishing contents.</i> <i>This applies only to fire extinguishers the gas content of which possesses a gauge pressure exceeding 25 lb. per sq. in. at 70° F.</i>	No label required.	Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Containers: Stout wooden boxes. Fiberboard boxes.
Fluorine.....	<i>Inflammable gas.</i> <i>Colorless, odorless gas.</i> <i>Extremely reactive chemically.</i> <i>Combines with moist air to form a dangerous, corrosive and irritating vapor.</i> <i>Will start fires if a jet of fluorine impinges on combustible material.</i> <i>Poisonous.</i> <i>Heavier than air.</i> <i>Shipped as a low pressure gas.</i>	Red gas.....	Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)

Compressed gases—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.
(Shipped only in tank cars).....	(Shipped only in tank cars).....	Ferry stowage (BB). Containers: Tank cars complying with ICC regulations.
Stowage: "On deck protected." "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Containers: Stout wooden boxes. Fiberboard boxes.	Ferry stowage (A.A). Containers: Stout wooden boxes. Fiberboard boxes.	Ferry stowage (BB). Containers: Stout wooden boxes. Fiberboard boxes.
Not permitted.....	Not permitted.....	Not permitted.

Table G—Classification of compressed gases—Continued

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation—Continued			
			Cargo vessel	Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Helium.....	Noninflammable gas..... Nonpoisonous, but in excessive quantities in an enclosed space may cause suffocation. Very much lighter than air. Pressure usually about 2,500 lb. per sq. inch at 150° F.	Green gas.....	Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Tank cars complying with ICO regulations. Tanks (ICC-107A****).	Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (AA)..... Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (BB). Containers: Cylinders. Tank cars complying with ICO regulations. Tanks (ICC-107A****).
Helium-oxygen mixture.....	Noninflammable gas..... Colorless odorless gas having same oxidizing properties depending upon proportion of oxygen in mixture. Lighter than air in most proportions.	Green gas.....	Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (AA)..... Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (BB). Containers: Cylinders.
Hexafluoropropylene.....	Noninflammable gas.....	Green gas.....	Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Tank cars complying with ICO regulations.	Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (AA)..... Containers: Cylinders. (With valve protection cap.) (With dished heads.) (Boxed.)	Ferry stowage (BB). Containers: Cylinders. (With valve protection cap.) (With dished heads.) (Boxed.)
Hydraulic accumulators.....	Hydraulic accumulators and component parts thereof containing a nonliquefied gas for the purpose of operation. Gas must be noninflammable. Must be shipped as inside containers. Each outside package shall be marked "Hydraulic accumulators containing compressed gas".	No label required.....	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Containers: Wooden boxes or crates (nonspecification).	Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat." Containers: Wooden boxes or crates (nonspecification).	Ferry stowage (AA)..... Containers: Wooden boxes or crates (nonspecification).	Ferry stowage (BB). Containers: Wooden boxes or crates (nonspecification).
Hydrocarbon gas, liquefied. Liquefied hydrocarbon gas.....	Inflammable gas..... May be a definite gas or mixtures of any of the liquefiable gases. Vapors heavier than air. Mixtures of vapor with air in certain proportions will be inflammable and explosive.	Red gas.....	Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Authorized for stowage "On deck in open" only: Tank cars complying with ICO regulations (trainships only).	Not permitted.....	Not permitted.....	Not permitted.
Hydrocarbon gas, non-liquefied. Non-liquefied hydrocarbon gas.....	Inflammable gas..... May be a definite gas or mixtures of nonliquefiable hydrocarbon gases. Mixtures of vapor with air in certain proportions will be inflammable and explosive. Vapors heavier than air.	Red gas.....	Stowage: "On deck protected." "On deck under cover." Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)	Not permitted.....	Not permitted.....	Not permitted.

Table G—Classification of Compressed gases—Continued

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation—Continued			
			Cargo vessel	Passenger vessel	Ferry vessel, passenger or vehicle	R. R. car ferry, passenger or vehicle
Hydrogen.....	<i>Inflammable gas.....</i> <i>Inflammable and violently explosive with about 4 to 76% in air.</i> <i>Nonpoisonous but excessive quantities in an enclosed space may cause suffocation.</i> <i>Very much lighter than air.</i> <i>Pressure usually about 2,300 lb. per sq. in. at 150° F.</i>	Red gas.....	Stowage: “On deck protected.” “On deck under cover.” Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.) Authorized for stowage “On deck in open” only: Tank cars complying with ICC regulations (trainships only).	Not permitted.....	Not permitted.....	Not permitted.

Table G—Classification of compressed gases—Continued

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation		
			Cargo vessel	Passenger vessel	Ferry vessel, passenger or vehicle
Hydrogen bromide	Noninflammable gas. Colorless gas with strong penetrating odor. Very corrosive if moisture is present. Fumes strongly when exposed to moist air. Irritating to mucous membrane. Soluble in water. Heavier than air.	Green gas	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	Ferry stowage (AA). Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)
Hydrogen chloride	Noninflammable gas. In event of leakage fumes which are irritating in contact with mucous membrane will be formed. With moisture present it is likely the fumes will show in the form of a vapor cloud. A weak muriatic acid solution which will attack iron and steel with evolution of hydrogen gas may be formed. Miscible with water. Heavier than air.	Green gas	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	Ferry stowage (AA). Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)
Hydrogen sulfide	Inflammable gas. Inflammable and explosive with about 4 to 46% in air. Foul odor gives warning of dangerous quantities in air. Poisonous even in small quantities (much less than 1%). Slightly heavier than air. Pressure about 550 lb. per sq. in. at 130° F.	Red gas	<p>Stowage: "On deck protected." "On deck under cover."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Authorized for stowage "On deck in open" only: Tank cars complying with ICC regulations (trainable only).</p>	Not permitted	Not permitted
Insecticide, liquefied gas	Noninflammable gas. Mixtures of insecticides such as D. D. T., Pyrethrum, etc., in liquefied propellant gases. These mixtures are usually non-inflammable. May be toxic on continued or prolonged exposure to fumes.	Green gas	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	Ferry stowage (AA). Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)
Liquefied nonflammable gases charged with nitrogen, carbon dioxide, or air.	Noninflammable gas. Noninflammable gases such as freons, etc., which are pressurized with nitrogen, carbon dioxide or air. Principal hazard is pressure.	Green gas	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	<p>Stowage: "On deck protected." "On deck under cover." "Tween decks." "Under deck away from heat."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>	Ferry stowage (AA). Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)

Table G—Classification
Compressed gases—Continued

Descriptive name of article	Characteristic properties, cautions, markings required	Label required	Required conditions for transportation—Continued						
			Required conditions for transportation—Continued						
		Passenger vessel							
		Ferry vessel, passenger or vehicle							
Liquefied petroleum gas.....	Inflammable gas. Heavier than air. Mixtures in air in certain proportions will be inflammable and explosive. Predominant components are generally butanes (normal butane or isobutane), propane, propylene, butylenes and butadiene.	Red gas.....	<p>Stowage: "On deck protected." "On deck under cover."</p> <p>Containers: ICC specification cylinders complying with ICC requirements for the vapor pressure of the gas and filled according to ICC regulations. Cylinders shall have valve protection caps, dished heads or be boxed.</p> <p>Authorized for stowage "On deck in open" only: Portable tanks (ICC-51) not over 20,000 lb. gr. wt. The vapor pressure of the lading at 115° F. shall not exceed the design pressure of the portable containers.</p> <p>Tank cars complying with ICC regulations (trainships only).</p> <p>Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only).</p> <p>Stowage: "On deck under cover." "Tween decks readily accessible." "Under deck away from heat."</p> <p>Containers: Wooden boxes or crates (nonspecification).</p>	<p>Stowage: "On deck protected." "On deck under cover."</p> <p>Containers: ICC specification cylinders complying with ICC requirements for the vapor pressure of the gas and filled according to ICC regulations. Cylinders shall have valve protection caps, dished heads or be boxed.</p>	<p>Ferry stowage (AA).....</p> <p>Containers: ICC specification cylinders complying with ICC requirements for the vapor pressure of the gas and filled according to ICC regulations. Cylinders shall have valve protection caps, dished heads or be boxed.</p>				
Machine or apparatus (assembled for shipment) containing not over 15 lb. weight of gas or liquid for their operation).		No label required.....							
Methane.....	Inflammable gas. Nonpoisonous, but in excessive quantities in a closed space will cause suffocation. Forms an explosive mixture with about 6 to 14% in air. Nonliquefied hydrocarbon gas. Lighter than air.	Red gas.....	<p>Stowage: "On deck protected." "On deck under cover."</p> <p>Containers: Cylinder: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Stowage: "On deck protected." "On deck under cover."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Authorized for stowage "On deck in open" only: Tank cars complying with ICC regulations (trainships only).</p>	<p>Not permitted.....</p>	<p>Ferry stowage (AA).....</p> <p>Containers: Wooden boxes or crates (nonspecification).</p>				
Methyl acetylene—15% to 20% propadiene mixture.	Inflammable gas.....	Red gas.....	<p>Stowage: "On deck protected." "On deck under cover."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Authorized for stowage "On deck in open" only: Tank cars complying with ICC regulations (trainships only).</p>	<p>Not permitted.....</p>	<p>Ferry stowage (BB). Containers: Wooden boxes or crates (nonspecification).</p>				
Methyl chloride.....	Inflammable gas. Inflammable and explosive with about 8 to 20% in air. Evolves hydrochloric acid fumes when burned. Paintily sweet odor, like ether. Pressure about 180 lb. per sq. in. at 150° F. Heavier than air.	Red gas.....	<p>Stowage: "On deck protected." "On deck under cover."</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p> <p>Authorized for stowage "On deck in open" only: Portable tanks (ICC-51) not over 20,000 lb. gr. wt. Tank cars complying with ICC regulations (trainships only).</p> <p>Motor vehicle tank trucks complying with ICC regulations (trailerships and trainships only).</p>	<p>Not permitted.....</p>	<p>Ferry stowage (AA).....</p> <p>Containers: Cylinders: (With valve protection cap.) (With dished heads.) (Boxed.)</p>				