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NOTE: ''Guidelines for the Selection of Chemical Protective Clothing'', Third Edition, 1987, available from the American Conference of Governmental Industrial Hygienists, 6500 Glenway Ave., Cincinnati, OH 45211–4438, provides information on the proper clothing for the cargo being handled.

(b) The section applies during the following operations:

(1) Sampling cargo.

(2) Transferring cargo.

(3) Making or breaking cargo hose connections.

(4) Gauging a cargo tank, unless gauging is by closed system.

(5) Opening cargo tanks.

(c) Coveralls or lab aprons may be replaced by splash suits or aprons constructed of light weight or disposable materials if, in the judgment of the person in charge of cargo handling operations,

(1) Contact with the cargo is likely to occur only infrequently and accidentally; and

(2) The splash suit or apron is disposed of immediately after contamination.

(d) Splash protective eyewear must be tight-fitting chemical-splash goggles, face shields, or similar items intended specifically for eye protection from chemical splashing or spraying.

(e) The person in charge of cargo handling operations shall ensure that each person in the vicinity of an operation listed in the paragraph (b) of this section or in the vicinity of tanks, piping, or pumps being used to transfer the cargo wears splash protective eyewear under paragraph (d) of this section.

[CGD 88–100, 54 FR 40040, Sept. 29, 1989]

§ 151.50–74 Ethylidene norbornene.

When Table 151.05 refers to this section, the following apply:

(a) 151.50–5 (g) and (h)

(b) Rubber hoses or fittings may not be used in transfer operations.

[CGD 80–001, 46 FR 63279, Dec. 31, 1981]

§ 151.50–75 Ferric chloride solution.

A containment system (cargo tank piping system, venting system, and gauging system) carrying this solution must be lined with rubber, corrosion resistant plastic, or a material approved by the Commandant (G–MSO).

[CGD 80–001, 46 FR 63279, Dec. 31, 1981, as amended by CGD 82–063b, 48 FR 4781, Feb. 3, 1983; CGD 88–100, 54 FR 40041, Sept. 29, 1989; 55 FR 17276, Apr. 24, 1990]

§ 151.50–76 Hydrochloric acid, spent (NTE 15%).

(a)(1) Gravity type cargo tanks must be designed and tested to meet the rules of the American Bureau of Shipping for a head of water at least 8 feet above the tank top or the highest level the lading may rise, whichever is greater. The plate thickness of any part of the tank may not be less than three-eighths inch. A shell plating of a barge may not be on the boundary of any part of the cargo tank.

(2) Gravity tank vents must:

(i) Terminate above the weatherdeck, clear of all obstructions and away from any from any source of ignition; and

(ii) Be fitted with a single flame screen or two fitted flame screens as described in § 151.03–25. Neither a shutoff valve nor a frangible disk may be fitted in the vent lines.

(b) Openings in the tanks are prohibited below deck, except for access openings used for inspection and maintenance of tanks, or unless otherwise specifically approved by the Commandant (G–MSO). Openings must be fitted with bolted cover plates and acid-resistant gaskets.

(c) Where special arrangements are approved by the Commandant (G–MSO) to permit a pump suction to be led from the bottom of the tank, the filling and discharge lines must be fitted with shutoff valves located above the weatherdeck or operable from it.

(d) The outage may not be less than 1 percent.

(e) An enclosed compartment containing, or a compartment adjacent to, a cargo tank:

(1) May have no electrical equipment that does not meet or exceed class I–B electrical requirements; and

(2) Must have at least one gooseneck vent of 2.5 inch diameter or greater. The structural arrangement of the compartment must provide for the free passage of air and gases to the vent or vents.

(f) No lights may be used during the cargo transfer operations, except installed electric or portable battery lights. Smoking is prohibited and the person in charge of cargo transfer shall ensure that ''No Smoking'' signs are displayed during cargo transfer operations.

(g) Tanks approved for the transportation of acid cargoes subject to this section may not be used for the transportation of any other commodity, except upon authorization by the Commandant (G–MSO).

(h) Each cargo tank must be examined internally at least once in every 4 years. If the lining of the cargo tank has deteriorated in service or is not in place, the Marine Inspector may require the tank to be tested by such nondestructive means as he may consider necessary to determine its condition.

[CGD 80–001, 46 FR 63279, Dec. 31, 1981, as amended by CGD 82–063b, 48 FR 4781, Feb. 3, 1983]

§ 151.50–77 Fluorosilicic acid (30% or less) (hydrofluorosilicic acid).

(a) Hydrofluorosilicic acid must be carried in gravity or pressure type cargo tanks independent of the vessel's structure. The tanks must be lined with rubber or other equally suitable material approved by the Commandant (G–MSO). See § 151.15–3(f)(2).

(b) Notwithstanding the provisions of § 151.50–20(b)(3), no compressed air may be used to discharge hydrofluorosilicic acid from gravity type cargo tanks unless:

(1) The tanks are of cylindrical shape with dished heads, and

(2) The air pressure does not exceed:

(i) The design pressure of the tank, and

(ii) 10 pounds per square inch gauge. The tanks must be fitted with pressure relief devices.

(c) During cargo tansfer, a water hose must be connected to a water supply and be ready for immediate use. Any leakage or spillage of acid must be immediately washed down. This requirement can be met by facilities provided from shore.

[CGD 80–001, 46 FR 63279, Dec. 31, 1981, as amended by CGD 82–063b, 48 FR 4781, Feb. 3, 1983; CGD 92–100, 59 FR 17028, Apr. 11, 1994]

§ 151.50–79 Methyl acetylene-propadiene mixture.

(a) The composition of the methyl acetylene-propadiene mixture at loading must be within one of the following sets of composition limits:

(1) Composition 1 is:

(i) Maximum methyl acetylene to propadiene molar ratio of 3 to 1;

(ii) Maximum combined concentration of methyl acetylene and propadiene of 65 mole percent;

(iii) Minimum combined concentration of propane, butane, and isobutane of 24 mole percent, of which at least one-third (on a molar basis) must be butanes and one-third propane; and

(iv) Maximum combined concentration of propylene and butadiene of 10 mole percent.

(2) Composition 2 is:

(i) Maximum methyl acetylene and propadiene combined concentration of 30 mole percent;

(ii) Maximum methyl acetylene concentration of 20 mole percent;

(iii) Maximum propadiene concentration of 20 mole percent;

(iv) Maximum propylene concentration of 45 mole percent;

(v) Maximum butadiene and butylenes combined concentration of 2 mole percent;

(vi) Minimum saturated C_4 hydrocarbon concentration of 4 mole percent; and

(vii) Minimum propane concentration of 25 mole percent.

(b) A barge carrying a methyl acetylene-propadiene mixture must have a refrigeration system that does not compress the cargo vapor or have a refrigeration system with the following features:

(1) A vapor compressor that does not raise the temperature and pressure of the vapor above 60°C (140°F) and 1.72 MPa guage (250 psig) during its operations, and that does not allow vapor to stagnate in the compressor while it continues to run.

(2) At the discharge piping from each compressor stage or each cylinder in the same stage of a reciprocating compressor:

(i) Two temperature actuated shutdown switches set to operate at 60°C (140°F) or less;