

United States of America Department of Homeland Security United States Coast Guard

Certification Date: 26 Mar 2020 Expiration Date: 26 Mar 2025

Certificate of Inspection

For thips on international voyages this certificate fulfills the requirements of SOLAS 74 as amended, regulation V/14, for a SAFE MANNING DOCUMENT.

| /essel Name | Official Number | IMO Numi | ber | Call Sign | Service | |
|----------------------------------|---------------------|--|------------|-------------|---------|---------|
| KIRBY 11312 | 1170768 | | | | Tank | Barge |
| Hailing Port WILMINGTON, DE | Hull Material Steel | Horse | power | Propulsion | | |
| UNITED STATES | | | | | | |
| | Data - Data | Keel Laid Date | Gross Tons | Net Tons | DWT | Length |
| Piace Built | Delivery Date | The state of the s | 2.5 | | | |
| | 29Sep2005 | 01Jun2005 | R-735 | R-735 | | R-200.0 |
| JEFFERSONVILLE, IN UNITED STATES | | | | R-735 - | | R-200.0 |

This vessel must be manned with the following licensed and unlicensed Personnel. Included in which there must be 0 Certified Lifeboatmen, 0 Certified Tankermen, 0 HSC Type Rating, and 0 GMDSS Operators.

0 Chief Engineers 0 Masters O Licensed Mates 0 Chief Males 0 First Class Pilots **O First Assistant Engineers** 0 Second Mates 0 Radio Officers **0 Second Assistant Engineers 0 Third Assistant Engineers** O Third Males 0 Able Seamen 0 Ordinary Seamen **0 Licensed Engineers** 0 Master First Class Pilot 0 Qualified Member Engineer 0 Mate First Class Pilots 0 Deckhands

18350 MARKET STREET

UNITED STATES

CHANNELVIEW, TX 77530

In addition, this vessel may carry 0 Passengers, 0 Other Persons in crew, 0 Persons in addition to crew, and no Others. Total Persons allowed: 0

Route Permitted And Conditions Of Operation:

---Lakes, Bays, and Sounds---

55 WAUGH DR STE 1000

HOUSTON, TX 77007

UNITED STATES

This vessel has been granted a fresh water service examination interval in accordance with 46 CFR 31.10-21(a) (2). If this vessel is operated in salt water more than 6 months in any 12 month period, the vessel must be inspected using salt water intervals as per 46 CFR 31.10-21(a) (1), and the cognizant OCMI must be notified in writing as soon as this change in status occurs.

This tank barge is participating in the Eighth and Ninth Coast Guard District's Tank Barge Streamlined Inspection Program (TBSIP). Inspection activities aboard this barge shall be conducted in accordance with its Tank Barge Action Plan (TAP). Inspection issues concerning this barge should be directed to Sector Houston-Galveston OCMI.

SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION

With this Inspection for Certification having been completed at Houston, TX, UNITED STATES, the Officer in Charge, Marine Inspection, Sector Houston-Galveston certified the vessel, in all respects, is in conformity with the applicable vessel inspection laws and the rules and regulations prescribed thereunder.

| | AnnuarPenod | IC/Re-III | spection |
|---------|-------------|-----------|-----------------|
| Date | Zone | A/P/R | Signature |
| 5/3/21 | H94 | A | Tauler Brotsch |
| 1/13/22 | Hall | P | I by or Brotsch |
| 1-1-2 | HOU | 14 | ROW MAY BOUN |
| 1-4-84 | HoustonTX | A | Raula Nalasia |

This certificate issued by:

Nicole D. Rodriguez CDR, USEG/By Direction

Officer in Charge, Manne Inspection

Sector Houston-Galveston

Inspection Zone



United States of America Department of Homeland Security **United States Coast Guard**

Certification Date: 26 Mar 2020 **Expiration Date:** 26 Mar 2025

Certificate of Inspection

Vessel Name: KIRBY 11312

---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

31Mar2025

02Mar2015

29Sep2005

Internal Structure

31Mar2025

26Mar2020

02Mar2015

--- Liquid/Gas/Solid Cargo Authority/Conditions ---

Authorization:

GRADE "A" AND LOWER FLAMMABLE / COMBUSTIBLE LIQUIDS AND SPECIFIED HAZARDOUS

Yes

CARGOES

Total Capacity

Units Highest Grade Type Part151 Regulated Part153 Regulated

Part154 Regulated

11040

Barrels

No

No

Hazardous Bulk Solids Authority

Loading Constraints - Structural

| Tank Number | Max Cargo Weight per Tank (short tons) | Maximum Density (lbs/gal) |
|-------------|--|---------------------------|
| 1 | 645 | 15.9 |
| 2 | 608 | 15.9 |
| 3 | 608 | 15.9 |

Loading Constraints - Stability

| Hull Type | Maximum Load (short tons) | Maximum Draft (ft/in) | Max Density (lbs/gal) | Route Description |
|-----------|---------------------------|-----------------------|--------------------------|-------------------|
| 1 | 1520 | 9ft 4in | 13.6 | R, LBS |
| II | 1520 | 9ft 4in | 13.6 | R, LBS |
| III | 1592 | 9ft 8in | 15.9 | R, LBS |
| III | 1700 | 10ft 2in | 13.6 | R, LBS |
| III | 1773 | 10ft 6in | 8.7 | R, LBS |

Conditions Of Carriage

Only those cargoes named in the vessel's Cargo Authority Attachment (CAA), serial #C1-1404455 dated December 09, 2014, may be carried and then only in the tanks indicated.

In accordance with 46 CFR, Part 39, excluding part 39,4000, this vessel's vapor control system has been inspected to the plans approved by Marine Safety Center letters Serial #C2-0504579 dated May 31, 2005, and found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column.

When the vessel is carrying cargoes containing greater than 0.5% benzene by volume, the person in charge is responsible for ensuring the provisions of 46 CFR Part 197, Subpart C are applicable.

As per 46 CFR 150.130, the Person In Charge of the vessel is responsible for ensuring that the compatibility requirements of 46 CFR, Part150, are met. Cargoes must be checked for compatibility using the figures, tables, and appendices of 46 CFR, Part 150, in conjunction with the reactive group numbers from the "Compat Group No" column listed in the vessel's Cargo Authority.

Stability and Trim

Per 46 CFR 151.10-15(c)(2), the maximum tank weights listed above reflect uniform (within 5%) loading at the deepest draft

^{*}Vapor Control Authorization*



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allowed. When carrying Subchapter O cargoes at shallower drafts, the barge should always be loaded uniformly.

The maximum design density of cargo which may be filled to the tank top is 8.745 lbs/gal. Cargoes with higher densities, up to 15.85 lbs/gal, may be carried as slack loads, but shall not exceed the tank weight limits as listed above.

--- Inspection Status ---

Cargo Tanks

| 5 H | Internal Exam | ĭ | | External Exa | m | |
|---------|---------------|-----------|------------|--------------|---------------------------------------|------|
| Tank Id | Previous | Last | Next | Previous | Last | Next |
| 1 | 06Aug2013 | 02Mar2015 | 31Mar2025 | - | - , | - |
| 2 | 06Aug2013 | 02Mar2015 | 31Mar2025 | - | - | - |
| 3 | 06Aug2013 | 02Mar2015 | 31Mar2025 | - " | - × | - |
| 9 | | | Hydro Test | | | |
| Tank Id | Safety Valves | 3 | Previous | Last | Next | |
| 1 | - | | - | - | · · · · · · · · · · · · · · · · · · · | |
| 2 | - | | - | - | | |
| 3 | - | , | - | | - | |

Class Type

--- Conditional Portable Fire Extinguisher Requirements---

Required Only During Transfer of Cargo or Operation of Barge Machinery

--- Fire Fighting Equipment ---

Fire Extinguishers - Hand portable and semi-portable

Quantity

2 40-B

END



Serial#: C Dated:

09-Dec-14

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: **KIRBY 11312**Official #: 1170768

Shipyard: JEFFBOAT

Hull #: 04-2262

| Tank Group Information | Cargo I | dentificati | on | | Cargo | | Tanks | | Carg Trans | | Enviror Control | nmental I | Fire | Special Require | ments | | • |
|---------------------------|---------|-------------|-------|-------------|------------|---------------------|-------|--------|---------------|------|--------------------|-------------------|------------------------|---|--|-------------|-----|
| Tnk Grp Tanks in Group | Density | Press. | Temp. | Hull Typ | Seg | Туре | Vent | Gauge | Pipe Class | Cont | Tanks | Handling Space | Protection Provided | General | Materials of Construction | Elec Haz | |
| A #1C, #2C, #3C | 15.9 | Atmos. | Elev | I | 1ii 2ii | Integral Gravity | PV | Closed | · | G-1 | NR | NA | Portable | 40-1(f)(1), .50-5, .50-60, .50-70(a), .50-70(b), .50-73, .50-81(a), .50- 81(b), | 55-1(b), (c), (e), (f), (h), (j), 56-1(a), (b), (c), (d), (e), (f), (g), | NR | Yes |

Notes: 1. Under Environmental Control, Tanks, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo tanks.

List of Authorized Cargoes

| Cargo Identificatio | n | - | | | | | | Condi | tions of Carriage | |
|--|--------------|--------------------|----------------|-------|--------------|---------------|-------------------|-----------------|---|-----------------|
| | | | : | | | | Vapor Re | | · = | |
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of | Insp. Period |
| Authorized Subchapter O Cargoes | | | | | | | | | | |
| Acetone cyanohydrin | ACY | 0 1,2 | 0 | E | - 1 | Α | Yes | 3 | .50-5, .50-70(b), .50-73, .50-81 | G |
| Acetonitrile | ATN | 37 | 0 | С | Ш | Α | Yes | 3 | No | G |
| Acrylonitrile | ACN | 15 ² | 0 | С | П | Α | Yes | 4 | .50-70(a), .55-1(e) | G |
| Adiponitrile | ADN | 37 | 0 | Ε | 11 | Α | Yes | 1 | No | G |
| Alkyl(C7-C9) nitrates | AKN | 34 ² | 0 | NΑ | Ш | Α | No | N/A | .50-81, .50-86 | G |
| Allyl alcohol | ALA | 15 ² | 0 | С | l | Α | Yes | 3 | .50-5, .50-73 | G |
| Allyl chloride | ALC | 15 | 0 | В | 1 | Α | Yes | 3 | .50-5 | G |
| Aminoethylethanolamine | AEE | 8 | 0 | Е | HI | Α | Yes | 1 | ,55-1 (b) | G |
| Ammonium bisulfite solution (70% or less) | ABX | 43 ² | 0 | NA | III | · A | No | N/A | .50-73, .56-1(a), (b), (c) | G |
| Ammonium hydroxide (28% or less NH3) | AMH | 6 | 0 | NA | Ш | Α | No | N/A | .56-1(a), (b), (c), (f), (g) | G . |
| Aniline | ANL | 9 | 0 | Е | Ţ | Α | Yes | 3 | .50-5 .50-73 | G |
| Anthracene oil (Coal tar fraction) | AHO | 33 | 0 | NA | II. | Α | No | N/A | No | G |
| Benzene | BNZ | 32 | 0 | С | H | Α | Yes | 1 | .50-60 | G |
| Benzene or hydrocarbon mixtures (having 10% Benzene or more) | внв | 32 ² | 0 | С | 1.11 | Α | Yes | 1 | .50-60 | G |
| Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more) | ВНА | 32 ² | 0 | С | 111 | Α | Yes | 1 | .50-60, .56-1(b), (d), (f), (g) | G |
| Benzene, Toluene, Xylene mixtures (10% Benzene or more) | BTX | 32 | 0 | B/C | Ш | Α | Yes | 1 | .50-60 | G |
| Butyl acrylate (all isomers) | BAR | 14 | 0 | D | Ш | Α | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Butyl methacrylate | ВМН | 14 | 0 | D | Ш | Α | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Butyraldehyde (all isomers) | BAE | 19 | 0 | С | III | Α | Yes | 1 | .55-1(h) | G |
| Camphor oil (light) | CPO | 18 | 0 | D | II. | Α | No | N/A | No . | G |
| Carbolic oil | СВО | 21 | 0 | Е | | Α | Yes | 3 | .50-5, .50-73 | G |
| Carbon tetrachioride | CBT | 36 | 0 | NA | Ш | Α | No | N/A | No | G |
| Caustic potash solution | CPS | 5 ² | 0 | NA | III | Α | No | N/A | .50-73, .55-1(j) | G |
| Caustic soda solution | CSS | 5 2 | 0 | NA | Ш | Α | No | N/A | .50-73, .55-1(j) | G |
| Chemical Oil (refined, containing phenolics) | COD | 21 | 0 | Ē | . II | Α | No | N/A | .50-73 | G |
| Chlorobenzene | CRB | 36 | 0 | D | Ш | Α | Yes | 1 | No | G |
| Chloroform | CRF | 36 | 0 | NA . | []] | Α | Yes | 3 | No | G |
| Chlorohydrins (crude) | CHD | 17 | 0 | D | ı | Α | Yes | 3 | .50-5 | G |
| o-Chloronitrobenzene | CNO | 42 | 0 | E | ı | Α | No | N/A | .50-5, .50-73 | G |
| Coal tar crude bases | СТВ | 9 | 0 | D | ı | Α | No | N/A | ,50-5, .50-73, .55-1(e) | G |
| Coal tar naphtha solvent | NCT | 33 | 0 | D | []] | A | Yes | 1 | .50-73 | G |
| Coal tar pitch (molten) | CTP | 33 | 0 | Е | 111 | Α | No | N/A | .50-73 | G |

^{2.} Under Environmental Control, Handling Space, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo handling space. NA means that the vessel does not have a cargo control space, and this requirement is not applied.

^{3.} Under Electrical Hazard Class, NA means that the tank group is suitable only for those cargoes which have no electrical hazard class requirement. NR means that the vessel has no electrical equipment located in a hazardous location.



C1-1404455

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Cargo Authority Attachment

Vessel Name: KIRBY 11312 Official #: 1170768

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Shipyard: JEFFBOAT

| Cargo Identification | n | | | | | | (| Condi | tions of Carriage | |
|--|--------------|--------------------|----------------|------------|--------------|---------------|-------------------|-----------------|---|-----------------|
| | | | | | | | Vapor R | ecovery | | |
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of | Insp. Period |
| Creosote | CCW | 21 ² | 0 | E | III | Α | Yes | 1 | No | G |
| Cresols (all isomers) | CRS | 21 | 0 | Е | Ш | Α | Yes | 1 | No | G |
| Cresylate spent caustic | CSC | 5 | 0 | NA | Ш | Α | No | N/A | .50-73, .55-1(b) | G |
| Cresylic acid tar | CRX | 21 | 0 | E | Ш | Α | Yes | 1 | .55-1(f) | G |
| Crotonaldehyde | CTA | 19 ² | 0 | С | II | Α | Yes | 4 | .55-1(h) | G |
| Crude hydrocarbon feedstock (containing Butyraldehydes and Ethylpropyl acrolein) | CHG | | 0 | С | III | Α | Yes | 1 | No | G |
| Cyclohexanone | ССН | 18 | 0 | D | H | Α | Yes | 1 | .56-1(a), (b) | G |
| Cyclohexanone, Cyclohexanol mixture | CYX | · 18 ² | 0 | Е | HI | Α | Yes | 1 | .56-1 (b) | G |
| Cyclohexylamine | CHA | 7 | 0 | D | Ш | Α | Yes | 1 | .56-1(a), (b), (c), (g) | G |
| Cyclopentadiene, Styrene, Benzene mixture | CSB | 30 | o | D | Ш | Α | Yes | 1 | .50-60, .56-1(b) | G |
| iso-Decyl acrylate | IAl | 14 | 0 | E | 111 | Α | Yes | 2 | .50-70(a), .50-81(a), (b), .55-1(c) | G |
| Dichlorobenzene (all isomers) | DBX | 36 | 0 | E | Ш | Α | Yes | 3 | .56-1(a), (b) | G |
| 1,1-Dichloroethane | DCH | 36 | 0 | С | H | Α | Yes | 1 | No | G |
| 2,2'-Dichloroethyl ether | DEE | 41 | 0 | D | II. | Α | Yes | 1 | ,55-1(f) | G |
| Dichloromethane | DCM | 36 | 0 | NA | Ш | Α | No | N/A | No | G |
| 2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution | DDE | 43 | 0 | E | Ш | Α | No | N/A | .56-1(a), (b), (c), (g) | G |
| 2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution | DAD | 0 1,2 | 0 | Α | . [1] | Α | .No | N/A | .56-1(a), (b), (c), (g) | G |
| 2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution | DTI | 43 ² | 0 | E | | A | No | N/A | .56-1(a), (b), (c), (g) | G |
| 1,1-Dichloropropane | DPB | 36 | 0 | С | | Α | Yes | 3 | No | G |
| 1,2-Dichloropropane | DPP | 36 | | Ċ. | 111 | Α | Yes | 3 | No | G |
| 1,3-Dichloropropane | DPC | 36 | - | C | 111 | A | Yes | 3 | Na | G |
| 1,3-Dichloropropene | DPU | 15 | 0 | D | <u>:::</u> | Α | Yes | 4 | No | G |
| Dichloropropene, Dichloropropane mixtures | DMX | 15 | | | | Α | Yes | 1 | No | Ģ |
| Diethanolamine | DEA | - 8 | 0 | E | | A | Yes | 1 | .55-1(c) | G |
| Diethylamine | DEN | 7 | 0 | c | 111 | Α | Yes | 3 | .55-1(c) | G |
| Diethylenetriamine | DET | 72 | 0 | | III | A | Yes | 1 | .55-1(c) | G |
| Diisobutylamine | DBU | 7 | 0 | | 111 | A | Yes | 3 | .55-1(c) | G |
| - | DIP | 8 | 0 | E | | A | Yes | 1 | ,55-1(c) | G |
| Discorpopulanine | DIA | 7 | -0 | C | | | Yes | 3 | ,55-1(c) | G |
| Diisopropylamine | DAC | 10 | -0 | E | | | Yes | 3 | .56-1(b) | G |
| N,N-Dimethylacetamide | DMB | 8 | 0 | D. | III | A | Yes | 1 | .56-1(b), (c) | G |
| Dimethylethanolamine | DMF | 10 | 0 | D | . III | Α | Yes | 1 | .55-1(e) | G |
| Dimethylformamide | | 7 | | C | | | | | .55-1(o) | G |
| Di-n-propylamine | DNA | | 0 | | 11 | A . | Yes | 3 | .56-1(b) | G |
| Dodecyldimethylamine, Tetradecyldimethylamine mixture | DOT | 7 | 0 | E | IJI | Α | No | N/A | No · | G |
| Dodecyl diphenyl ether disulfonate solution | DOS | 43 | 0 | # | H | A | No | N/A | No | G |
| EE Glycol Ether Mixture | EEG | 40 | 0 | D | | A | No | N/A | .50-5 | |
| Epichlorohydrin | EPC | 17 | 0 | D | - I | A | Yes | 3 | | G G |
| Ethanolamine | MEA | 8 | 0 | E | - 111 | A | Yes | 1 | .55-1(c) | |
| Ethyl acrylate | EAC | 14 | 0 | <u>C</u> . | | Α . | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Ethylamine solution (72% or less) | EAN | 7 | 0 | | - 11 | A | Yes | 6 | ,55-1(b) | G |
| N-Ethylbutylamine | EBA | 7 | 0 | D | III | Α. | Yes | 3 | ,55-1(b) | G |
| N-Ethylcyclohexylamine | ECC | 7 | 0 | D | | A | Yes | 1 | .55-1(b) | G |
| Ethylene chlorohydrin | ECH | 20 | Ο, | D | l | Α | Yes | 3 | .50-5, .50-73 | G |
| Ethylene cyanohydrin | ETC | 20 | 0 | E | | A | Yes | 1 | No | Ģ |
| Ethylenediamine | EDA | 7 2 | 0 | D | 111 | Α | Yes | 1 | .55-1(c) | G |
| Ethylene dichloride | EDC | 36 ² | 0 | С | III | Α | Yes | 1 | No | G |
| Ethylene glycol hexyl ether | EGH | 40 | 0 | E | III | Α | No | N/A | No | G |



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Shipyard: JEFFBOAT

| Company Co | |
|--|-----------------|
| Ethylene glycol monalkyl ethors | |
| Ethylene glycol propyl ether | Insp. Period |
| Ethylmexyl acrylate | G |
| Ethyl methacrylate | G |
| Part | G |
| Formaldehyde solution (37% to 50%) FMS | G |
| Fractional Fra | G |
| Ciutaratide/hyde solution (50% or less) GTA 19 0 NA III A No N/A No | G |
| Hexamethyleneciamine solution | G |
| Hexamethyleneimine | G |
| HFN | G |
| 2-Hydroxyethyl acrylate | G |
| Isoprene IPR 30 O A III A No N/A 50-70(a), 50-81(a), (b) | Ģ |
| Soprene, Pentadiene mixture IPN | G |
| Kraft pulping liquors (free alkali content 3% or more)(including: Black, Green, or White liquor) KPL 5 O NA III A No N/A .56-73, 58-1(a), (c). (d) Mestyl oxide MSO 18 2 O D III A Yes 1 No Methyl acrylate MAM 14 O C III A Yes 2 .50-70(a), 50-81(a), (b) Methyl colopentadiene dimer MCR 30 O C III A Yes 1 .68-1(b), (c) Methyl diethanolamine MCR 8 O E III A Yes 1 .56-1(b), (c) 2-Methyl-5-ethylpyridine MEP 9 O E III A Yes 1 .55-1(e) Methyl methacrylate MMM 14 O C III A Yes 2 .50-7(a), 50-81(a), (b) 2-Methyl-1 methacrylate MRR 9 O D III A Yes 3 .55 | G |
| Mestyl oxide MSO 18 2 O D III A Yes 1 No No No No No No No | G |
| Methyl acrylate MAM 14 O C III A Yes 2 .50-70(a), .50-81(a), (b) Methylcyclopentadiene dimer MCK 30 O C III A Yes 1 Ne Methyl diethanolamine MDE 8 O E III A Yes 1 .56-1(b), (c) 2-Methyl-5-ethylpyridine MEP 9 O E III A Yes 1 .55-1(e) Methyl methacrylate MMM 14 O C III A Yes 2 .50-70(a), 50-81(a), (b) 2-Methylpyridine MPR 9 O D III A Yes 3 .55-1(c) 2-Methylpyridine MSR 30 O D III A Yes 3 .55-1(c) 2-Methylpyridine MSR 30 O D III A Yes 1 .55-1(c) 2-Methylpyridine MSR 30 | G |
| Methylcyclopentadiene dimer MCK 30 O C III A Yes 1 No Methyl diethanolamine MDE 8 O E III A Yes 1 .56-1(b). (c) 2-Methyl-5-ethylpyridine MEP 9 O E III A Yes 1 .55-1(e) Methyl methacrylate MMM 14 O C III A Yes 2 .50-70(a), 50-81(a), (b) 2-Methyl pyridine MPR 9 O D III A Yes 2 .50-70(a), 50-81(a), (b) 2-Methyl pyridine MPR 9 O D III A Yes 3 .55-1(e) 2-Methyl pyridine MPR 9 O D III A Yes 3 .55-1(e) 2-Methyl pyridine MPR 9 O D III A Yes 1 .55-1(e) 2-Methyl pyridine MPR 9 | G |
| Methyl diethanolamine MDE 8 O E III A Yes 1 .56-1(b), (c) 2-Methyl-5-ethylpyridine MEP 9 O E III A Yes 1 .56-1(e) Methyl methacrylate MMM 14 O C III A Yes 2 .50-70(a), .50-81(a), (b) 2-Methyl methacrylate MPR 9 O D III A Yes 2 .50-70(a), .50-81(a), (b) 2-Methyl methacrylate MPR 9 O D III A Yes 2 .50-70(a), .50-81(a), (b) 2-Methyl methacrylate MPR 9 O D III A Yes 3 .55-1(c) 4 D B 0 D III A Yes 1 .56-1(c) Morpholine MPL 7 O D III A Yes 1 .56-1(c) Nitroehane NTB 42 | G |
| MEP 9 O E III A Yes 1 55-1(e) | G |
| Methyl methacrylate MMM 14 O C III A Yes 2 .50-70(a), .50-81(a), (b) 2-Methylpyridine MPR 9 O D III A Yes 3 .55-1(c) alpha-Methylstyrene MSR 30 O D III A Yes 2 .50-70(a), .50-81(a), (b) Morpholine MPL 7 ° 2 O D III A Yes 1 .55-1(c) Naphthalene (molten) NTM 32 O C III A Yes 1 .56-1(c) Nitrobenzene NTB 42 O E I A Yes 3 .50-5, .50-73 Nitrobenzene NTE 42 O D II A No N/A .50-81, .56-1(b) 1-or 2-Nitropropane NPM 42 O D III A No N/A .50-5, .50-73 Pentachloroethane PCE 36 | G |
| 2-Methylpyridine MPR 9 O D III A Yes 3 .55-I(c) alpha-Methylstyrene MSR 30 O D III A Yes 2 .50-70(a). 50-81(a). (b) Morpholine MPL 7 2 O D III A Yes 1 .56-1(c) Naphthalene (molten) NTM 32 O C III A Yes 1 .56-1(c) Nitrobenzene NTB 42 O E I A Yes 3 .50-5, 50-73 Nitrobenzene NTE 42 O D II A No N/A .50-81, 56-1(b) 1- or 2-Nitropropane NPM 42 O D III A Yes 1 .50-81 o-Nitrotoluene NIE 42 O E I A No N/A No Pentachloroethane PCE 36 O NA | G |
| A | G |
| Morpholine MPL 7 2 | G |
| Naphthalene (molten) NTM 32 O C III A Yes 1 No Nitrobenzene NTB 42 O E I A Yes 3 .50-5, .50-73 Nitroethane NTE 42 O D II A No N/A .50-81, .56-1(b) 1- or 2-Nitropropane NPM 42 O D III A Yes 1 .50-81 o-Nitrotoluene NIE 42 O E I A No N/A .50-81 Pentachloroethane PCE 36 O NA III A No N/A No 1,3-Pentadiene PDE 30 O A III A Yes 7 .50-70(a), .50-81 Perchloroethylene PER 36 O NA III A No N/A No Phthalic anhydride (molten) PAN 11 O E < | G |
| Nitrobenzene NTB 42 O E I A Yes 3 .50-5, .50-73 Nitroethane NTE 42 O D II A No N/A .50-81, .56-1(b) 1- or 2-Nitropropane NPM 42 O D III A Yes 1 .50-81 o-Nitrotoluene NIE 42 O E I A No N/A .50-81 Pentachloroethane PCE 36 O NA III A No N/A No 1,3-Pentadiene PDE 30 O A III A Yes 7 .50-70(a), 50-81 Perchloroethylene PER 36 O NA III A No N/A No Phthalic anhydride (molten) PAN 11 O E III A Yes 1 .55-1(e) | G |
| Nitroethane NTE 42 O D II A No N/A 50-81, 56-1(b) 1- or 2-Nitropropane NPM 42 O D III A Yes 1 50-81, 56-1(b) o-Nitrotoluene NIE 42 O E I A No N/A 50-81 Pentachloroethane PCE 36 O NA III A No N/A No 1,3-Pentadiene PDE 30 O A III A Yes 7 .50-70(a), 50-81 Perchloroethylene PER 36 O NA III A No N/A No Phthalic anhydride (molten) PAN 11 O E III A Yes 1 .65-1(e) Polyethylene polyamines PEB 7 2 O E III A Yes 1 .65-1(e) | G |
| 1- or 2-Nitropropane | G |
| o-Nitrotoluene NIE 42 O E I A No N/A 50-5, 50-73 Pentachloroethane PCE 36 O NA III A No N/A No 1,3-Pentadiene PDE 30 O A III A Yes 7 .50-70(a), 50-81 Perchloroethylene PER 36 O NA III A No N/A No Phthalic anhydride (molten) PAN 11 O E III A Yes 1 No Polyethylene polyamines PEB 7 2 O E III A Yes 1 .55-1(e) | G |
| Pentachloroethane PCE 36 O NA III A No N/A No 1,3-Pentadiene PDE 30 O A III A Yes 7 .50-70(a), .50-81 Perchloroethylene PER 36 O NA III A No N/A No Phthalic anhydride (molten) PAN 11 O E III A Yes 1 No Polyethylene polyamines PEB 7 2 O E III A Yes 1 .55-1(e) | G |
| 1,3-Pentadiene PDE 30 O A III A Yes 7 .50-70(a), .50-81 Perchloroethylene PER 36 O NA III A No N/A No Phthalic anhydride (molten) PAN 11 O E III A Yes 1 No Polyethylene polyamines PEB 7 2 O E III A Yes 1 .55-1(e) | G |
| Perchloroethylene PER 36 O NA III A No N/A No Phthalic anhydride (molten) PAN 11 O E III A Yes 1 No Polyethylene polyamines PEB 7 2 O E III A Yes 1 .55-1(e) | G |
| Phthalic anhydride (molten) PAN 11 O E III A Yes 1 No Polyethylene polyamines PEB 7 2 O E III A Yes 1 .55-1(e) | G |
| Polyethylene polyamines PEB 7 2 O E III A Yes 1 .55-1(e) | G |
| - an orange Michigan data at a common Audion (MV-MA) - and a common (MV-MA) - and a c | G |
| iso-Propanolamine MPA 8 O F III A Yes 1 .55-160 | G |
| | G |
| Propanolamine (iso-, n-) PAX 8 O E III A Yes 1 .56-1(b), (c) | G |
| iso-Propylamine IPP 7 O A II A No N/A .55-1(e) | G |
| Pyridine PRD 9 O C III A Yes 1 .55-1(e) | G |
| Pyrolysis Gasoline GPY 32 O D II A Yes 1 .50-5, .50-60 | G |
| Sodium acetate, Glycol, Water mixture (3% or more Sodium SAP 5 O III A No N/A .50-73, .55-1(1) Hydroxide) | e . |
| Sodium aluminate solution (45% or less) SAU 5 O NA III A No N/A .50-73, .56-1(a), (b), (c) | G |
| Sodium chlorate solution (50% or less) SDD 0 1/2 O NA III A No N/A .50-73 | G |
| Sodium hypochlorite solution (20% or less) SHQ 5 O NA III A No N/A .50-73, 56-1(a), (b) | G |
| Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less) SSH 0 1/2 O NA III A Yes 1 .50-73, .55-1(b) | G |
| Sodium sulfide, hydrosulfide solution (H2S greater than 15 ppm but SSI 0 1.2 O NA III A No N/A .50-73, .55-1(b) less than 200 ppm) | G |
| Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm) SSJ 0 1.2 O NA II A No N/A .50-73, .55-1(b) | G |



rial #: *C1-1404455* rated: *09-Dec-14*

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 11312 Official #: 1170768

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Shipyard: JEFFBOAT

| Cargo Identificatio | n | | | | | | **** | | ions of Carriage | |
|--|--|---|---------------------------------------|---|--------------|---------------------------------------|---|---|---|----------------|
| | | | | | | | Vapor R | | ***. | |
| Name | Chem | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of | Insp. Perio |
| Styrene (crude) | STX | 30 | 0 | D | Ш | Α | Yes | 2 | No | G |
| Styrene monomer | STY | 30 | 0 | D | - 111 | Α | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| 1,1,2,2-Tetrachloroethane | TEC | 36 | 0 | NA | 111 | Α | No | N/A | No | G |
| Tetraethylenepentamine ` | TTP | 7 | 0 | E | III | Α | Yes | 1 | .55-1(c) | G |
| Tetrahydrofuran | THE | 41 | 0 | С | III | Α | Yes | 1 | .50-70(b) | G |
| Toluenediamine | TDA | 9 | 0 | E | Ш | Α | No | N/A | .50-73, .56-1(a), (b), (c), (g) | G |
| o-Toluidine | TLI | 9 | 0 | E | ll . | Α | Yes | 3 | .50-5, .50-73 | G |
| 1,2,4-Trichlorobenzene | ТСВ | 36 | 0 | E | Ш | Α | Yes | 1 | No | G |
| 1,1,2-Trichloroethane | ТСМ | 36 | 0 | NA | H | A | Yes | 1 | .50-73, .56-1(a) | G |
| Trichloroethylene | TCL | 36 ² | 0 | NA | 111 | A | Yes | 1 | No | G |
| 1,2,3-Trichloropropane | TCN | 36 | 0 | E | 11 | A | Yes | 3 | .50-73, .56-1(a) | G |
| Triethanolamine | TEA | 8 ² | 0 | E | | Α | Yes | 1 | .55-1(b) | G |
| Triethylamine | TEN | 7 | 0 | | ::::. H | Α | Yes | 3 | .55-1(e) | |
| Triethylenetetramine | TET | 72 | 0 | | | | Yes | 1 | .55-1(b) | G |
| | TPB | 5 | -0 | | | | | | .56-1(a), (b), (c) | G |
| Triphenylborane (10% or less), caustic soda solution | | | | NA NA | III | Α | No | N/A | | G |
| Trisodium phosphate solution | TSP | 5 | 0 | NA | | <u>A</u> | _ No | N/A | .50-73, .56-1(a), (c). | |
| Urea, Ammonium nitrate solution (containing more than 2% NH3) | UAS | 6 | 0 | NA | | A | No | N/A | .56-1(b) | G |
| Vanillin black liquor (free alkali content, 3% or more). | VBL | 5 | 0 | NA - | 1# | A | . No | N/A | .50-73, .56-1(a), (c), (g) | G |
| Vinyl acetate | VAM | 13 | 0 | С | | A | Yes | 2 | .50-70(a), .50-81(a), (b) | G |
| Vinyl neodecanate | VND | 13 | 0 | E. | III | Α | No | N/A | .50-70(a), .50-81(a), (b) | G |
| Subchapter D Cargoes Authorized for Vapor Contr | VNT ol | 13 | 0 | D | 131 | A | Yes | 2 | .50-70(a), .50-81, .56-1(a), (b), (c), (| |
| Vinyitoluene Bubchapter D Cargoes Authorized for Vapor Contr Acetone | ol ACT | 18 ² | D | С | | Α | Yes | 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contr Acetone Acetophenone | OI ACT ACP | 18 ² | D D | C E | | A | Yes Yes | 1 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contr Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates | OI ACT ACP APU | 18 ² 18 | D D | C E | 111 | A A A | Yes Yes Yes | 1 1 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contractione Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates | ACT ACP APU AEB | 18 ² 18 20 20 | D D D | C E E | | A | Yes Yes Yes | 1 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contractione Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) | ACT ACP APU AEB AEC | 18 ² 18 20 20 34 | D D D D D | C E E | | A A A | Yes Yes Yes | 1 1 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contractione Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates | ACT ACP APU AEB | 18 ² 18 20 20 | D D D | C E E | | A A A | Yes Yes Yes | 1 1 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contractione Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) | ACT ACP APU AEB AEC | 18 ² 18 20 20 34 | D D D D D D D D D D | C E E D | | A A A A | Yes Yes Yes Yes | 1 1 1 1 1 1 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contractione Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) | ACT ACP APU AEB AEC AAI | 18 ² 18 20 20 34 20 | D D D D D D D | C E E D | | A A A A | Yes Yes Yes Yes Yes Yes Yes | 1 1 1 1 1 | | |
| Subchapter D Cargoes Authorized for Vapor Control Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and | ACT ACP APU AEB AEC AAI BAL | 18 ² 18 20 20 34 20 21 | D D D D D D D D D D | C E E D | | A A A A A A | Yes Yes Yes Yes Yes Yes Yes Yes Yes | 1 1 1 1 1 1 | | |
| Acetone Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) | ACT ACP APU AEB AEC AAI BAL BFX | 18 ² 18 20 20 34 20 21 20 | D D D D D D D D D D D D D D D D D D D | C E E D D D E E | | A A A A A A | Yes | 1 | | |
| Subchapter D Cargoes Authorized for Vapor Control Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) | ACT ACP APU AEB AEC AAI BAL BFX BAX | 18 ² 18 20 20 34 20 21 20 34 20 21 | D D D D D D D D D D D D D D D | C E E D D D E E D D D | | A A A A A A A A | Yes | 1 | | |
| Subchapter D Cargoes Authorized for Vapor Control Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (n-) | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN | 18 ² 18 20 20 34 20 21 20 34 20 2 20 2 | D D D D D D D D D D D D D D D D D D D | C E E E D D D E E E D D D D D D D D D D | | A A A A A A A A A | Yes | 1 | | |
| Subchapter D Cargoes Authorized for Vapor Control Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (sec-) | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS | 18 ² 18 20 20 34 20 21 20 34 20 ² 20 ² 20 ² | D D D D D D D D D D D D D D D D D D D | C E E E D D D E E D D D C C | | A A A A A A A A A | Yes | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | |
| Subchapter D Cargoes Authorized for Vapor Control Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalky!(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (sec-) Butyl alcohol (sec-) Butyl alcohol (tert-) | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS BAT | 18 ² 18 20 20 34 20 21 20 34 20 21 20 21 20 20 ² 20 ² 20 ² | D D D D D D D D D D D D D D D D D D D | C E E E D D D D D D D D D C C C | | A A A A A A A A A A A A A A A A A A A | Yes | 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contro Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (n-) Butyl alcohol (sec-) Butyl alcohol (tert-) Butyl benzyl phthalate | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS BAT BPH | 18 ² 18 20 20 34 20 21 20 34 20 ² 20 ² 20 ² 20 ² 34 | D D D D D D D D D D D D D D D D D D D | C E E E D D D D D C C C E | | A A A A A A A A A A A A A A A A A A A | Yes | 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contro Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (n-) Butyl alcohol (sec-) Butyl alcohol (tert-) Butyl benzyl phthalate Butyl toluene | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS BAT BPH BUE | 18 ² 18 20 20 34 20 21 20 34 20 ² 20 ² 20 ² 20 ² 20 ² 34 32 | D D D D D D D D D D D D D D D D D D D | C E E E D D D C C C E D D | | A A A A A A A A A A A A A A A A A A A | Yes | 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contro Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (sec-) Butyl alcohol (sec-) Butyl alcohol (tert-) Butyl benzyl phthalate Butyl toluene Caprolactam solutions | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS BAT BPH BUE CLS | 18 ² 18 20 20 34 20 21 20 34 20 ² 20 ² 20 ² 20 ² 34 32 22 | D D D D D D D D D D D D D D D D D D D | C E E E D D D C C C E D D E E | | A A A A A A A A A A A A A A A A A A A | Yes | 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contro Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (sec-) Butyl alcohol (sec-) Butyl alcohol (tert-) Butyl benzyl phthalate Butyl foluene Caprolactam solutions Cyclohexane | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS BAT BPH BUE CLS CHX | 18 ² 18 20 20 34 20 21 20 2 20 ² 20 ² 20 ² 22 21 32 22 31 | D D D D D D D D D D D D D D D D D D D | C E E E D D D C C C E D D E C C C E C C C C | | A A A A A A A A A A A A A A A A A A A | Yes | 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contro Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (sec-) Butyl alcohol (sec-) Butyl alcohol (tert-) Butyl benzyl phthalate Butyl toluene Caprolactam solutions Cyclohexane Cyclohexane | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS BAT BPH BUE CLS CHX | 18 ² 18 20 20 34 20 21 20 34 20 ² 20 ² 20 ² 20 ² 20 ² 20 ² 31 20 | D D D D D D D D D D D D D D D D D D D | C | | A A A A A A A A A A A A A A A A A A A | Yes | 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contro Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (iso-) Butyl alcohol (sec-) Butyl alcohol (tert-) Butyl alcohol (tert-) Butyl benzyl phthalate Butyl toluene Caprolactam solutions Cyclohexane Cyclohexanol 1,3-Cyclopentadiene dimer (molten) | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS BAT BPH BUE CLS CHX CPD | 18 ² 18 20 20 34 20 21 20 34 20 ² 20 ² 20 ² 20 ² 20 ² 34 32 22 31 20 30 | D D D D D D D D D D D D D D D D D D D | C E E D D D C C C E D D E C C E D D E C C D D E C C C E D D E C C C E C D D E C C C E C D D E C C C E C D D E C C C C | | A A A A A A A A A A A A A A A A A A A | Yes | 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 | | |
| Subchapter D Cargoes Authorized for Vapor Contro Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (iso-) Butyl alcohol (sec-) Butyl alcohol (tert-) Butyl alcohol (tert-) Butyl benzyl phthalate Butyl toluene Caprolactam solutions Cyclohexane Cyclohexanol 1,3-Cyclopentadiene dimer (molten) p-Cymene | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS BAT BPH BUE CLS CHX CHN CPD CMP | 18 ² 18 20 20 34 20 21 20 34 20 ² 20 ² 20 ² 20 ² 20 ² 34 32 22 31 20 30 32 | D D D D D D D D D D D D D D D D D D D | C E E D D D C C C E D D E C C E D D E C D D E D D D D | | A A A A A A A A A A A A A A A A A A A | Yes | 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 | | |
| Subchapter D Cargoes Authorized for Vapor Contro Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (n-) Butyl alcohol (sec-) Butyl alcohol (tert-) Butyl benzyl phthalate Butyl toluene Caprolactam solutions Cyclohexane Cyclohexanol 1,3-Cyclopentadiene dimer (molten) p-Cymene iso-Decaldehyde | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS BAT BPH BUE CLS CHX CHN CPD CMP | 18 ² 18 20 20 34 20 21 20 34 20 ² 20 ² 20 ² 20 ² 20 ² 34 32 22 31 20 30 | D D D D D D D D D D D D D D D D D D D | C E E D D D C C C E D D E C C C E D D E C C C C | | A A A A A A A A A A A A A A A A A A A | Yes | 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 | | |
| Subchapter D Cargoes Authorized for Vapor Contro Acetone Acetophenone Alcohol(C12-C16) poly(1-6)ethoxylates Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates Amyl acetate (all isomers) Amyl alcohol (iso-, n-, sec-, primary) Benzyl alcohol Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters) Butyl acetate (all isomers) Butyl alcohol (iso-) Butyl alcohol (iso-) Butyl alcohol (sec-) Butyl alcohol (tert-) Butyl alcohol (tert-) Butyl benzyl phthalate Butyl toluene Caprolactam solutions Cyclohexane Cyclohexanol 1,3-Cyclopentadiene dimer (molten) p-Cymene | ACT ACP APU AEB AEC AAI BAL BFX BAX IAL BAN BAS BAT BPH BUE CLS CHX CHN CPD CMP | 18 ² 18 20 20 34 20 21 20 34 20 ² 20 ² 20 ² 20 ² 20 ² 34 32 22 31 20 30 32 | D D D D D D D D D D D D D D D D D D D | C E E D D D C C C E D D E C C E D D E C D D E D D D D | | A A A A A A A A A A A A A A A A A A A | Yes | 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 | | |



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Serial #: C1-1404455 Dated: 09-Dec-14

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 11312 Official #: 1170768

Page 5 of 8

Shipyard: JEFFBOAT

| Cargo Identification | on . | | | | ! | | T | Condi | tions of Carriage | |
|--|--------------|--------------------|----------------|----------|--------------|---------------|-------------------|-----------------|---|-----------------|
| | <u> </u> | 0 | | | 11 | | | Recovery | | |
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of | Insp. Period |
| n-Decylbenzene, see Alkyl(C9+)benzenes | DBZ | 32 | D | E | | Α | Yes | 1 | · | ' |
| Diacetone alcohol | DAA | 20 ² | D | D | | Α | Yes | 1 | ····· <u> </u> | |
| ortho-Dibutyl phthalate | DPA | 34 | D | E | | Α | Yes | 1 | | |
| Diethylbenzene | DEB | 32 | D | D | | Α | Yes | 1 | | |
| Diethylene glycol | DEG | 40 ² | D | E | | Α | Yes | 1 | | |
| Diisobutylene | DBL | 30 | D | С | | Α | Yes | 1 | | |
| Diisobutyl ketone | DIK | 18 | D | D | | Α | Yes | 1 | | |
| Diisopropylbenzene (all isomers) | DIX | 32 | D | Е | | Α | Yes | 1 | = 114,1 | |
| Dimethyl phthalate | DTL | 34 | D | Е | | Α | Yes | 1 | | |
| Dioctyl phthalate | DOP | 34 | D | E | | Α | Yes | 1 | | |
| Dipentene | DPN | 30 | D | D | | A | Yes | 1 | ······································ | |
| Diphenyl | DIL | 32 | D | D/E | | Α | Yes | 1 | | |
| Diphenyl, Diphenyl ether mixtures | DDO | 33 | D | Ē | | Α | Yes | 1 | | |
| Diphenyl ether | DPE | 41 | D | {E} | | Α | Yes | 1 | | |
| Dipropylene glycol | DPG | 40 | D. | E | | A | Yes | 1 | | - |
| Distillates: Flashed feed stocks | DFF | 33 | D | E | | A | Yes | 1 | · · · · · · · · · · · · · · · · · · · | |
| Distillates: Straight run | DSR | 33 | D | E | | <u></u> | Yes | 1 | · · · · · · · · · · · · · · · · · · · | |
| Dodecene (all isomers) | DOZ | 30 | D | D | | Α | Yes | | | |
| 2-Ethoxyethyl acetate | EEA | 34 | D | D | | | Yes | 1 | | |
| Ethoxy triglycol (crude) | ETG | 40 | | E | • | A | Yes | 1 | | |
| Ethyl acetate | ETA | 34 | D | C | | | | 1 | | |
| Ethyl acetate | EAA | 34 | . D | E | | | Yes | 1 | | - |
| Ethyl alcohol | EAL | 20 2 | D | C | | Α | Yes | | | |
| - Value of the second of the s | | | | | | A | Yes | 1 | | |
| Ethylbenzene | ETB | 32 | D | <u>c</u> | | Α | Yes | 1 | | |
| Ethyl butanol | EBT | 20 | D | D | | _ <u>A</u> | Yes | | | |
| Ethyl tert-butyl ether | EBE | 41 | D | C | | Α . | Yes | 1 | | |
| Ethyl butyrate | EBR | 34 | _ <u>D</u> | <u>D</u> | | Α | Yes | 1 | | |
| Ethyl cyclohexane | ECY | 31 | D | D | | A . | Yes | 1 | *************************************** | |
| Ethylene glycol | EGL | 20 ² | D | E | | Α | Yes | 1 | *************************************** | |
| Ethylene glycol butyl ether acetate | EMA | 34 | D | E | | Α | Yes | 1 | <u> </u> | |
| Ethylene glycol diacetate | EGY | 34 | D | E | | A | Yes | 1 | | |
| Ethylene glycol phenyl ether | EPE | 40 | D | Ε | | Α | Yes | 1 | | |
| Ethyl-3-ethoxypropionate | EEP | 34 | D | D | | Α. | Yes | 1 | | |
| 2-Ethylhexanol | EHX | 20 | D | E | | A | Yes | 1 | | |
| Ethyl propionate | EPR | 34 | D | С | | Α. | Yes | 1 | <u></u> | |
| Ethyl toluene | ETE | 32 | D | D | | Α | Yes | 1 | | |
| Formamide | FAM | 10 | Ð | E | | A | Yes | 1 | | |
| Furfuryl alcohol | FAL | 20 ² | D | Ę | | Α | Yes | 1 | | |
| Gasoline blending stocks: Alkylates | GAK | 33 | D | A/C | | Α | Yes | 1 | | |
| Gasoline blending stocks: Reformates | GRF | 33 - | D | A/C | | Α | Yes | 1 | | |
| Gasolines: Automotive (containing not over 4.23 grams lead per gallon) | GAT | 33 | D | С | | Α | Yes | 1 | | |
| Gasolines: Aviation (containing not over 4.86 grams of lead per gallon) | GAV | 33 | D . | С | | Α | Yes | 1 | | |
| Gasolines: Casinghead (natural) | GCS | 33 | D | A/C | | Α | Yes | 1 | - | |
| Gasolines: Polymer | GPL | 33 | D | A/C | | A | Yes | 1 | | |
| Gasolines: Straight run | GSR | 33 | D | A/C | | Α | Yes | 1 | | |
| Glycerine | GCR | 20 ² | D | Е | | Α | Yes | 1 | | |
| Heptane (all isomers), see Alkanes (C6-C9) (all isomers) | HMX | 31 | D | С | | Α | Yes | 1 | | |



Serial #: C1-1404455

09-Dec-14

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 11312 Official #: 1170768

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Shipyard: JEFFBOAT

| Cargo Identif | ication | | , | | | | | Condi | tions of Carriage | |
|--|--------------|--------------------|----------------|----------|--------------|---------------|-------------------|-----------------|--|-----------------|
| | | | | | | | Vapor | Recovery | | |
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | App'd (Y or N) | VCS Category | Special Requirements in 46 CFR 151 General and Mat'ls of | Insp. Period |
| Heptanoic acid | HEP | 4 | D | E | | Α | Yes | 1 | | |
| Heptanol (all isomers) | HTX | 20 | D | D/E | | Α | Yes | 1 | | |
| Heptene (all isomers) | HPX | 30 | D | С | | Α | Yes | 2 | | |
| Heptyl acetate | HPE | 34 | D | Е | | Α | Yes | 1 | | |
| Hexane (all isomers), see Alkanes (C6-C9) | HXS | 31 ² | D | B/C | | Α | Yes | 1 | | |
| Hexanoic acid | HXO | 4 | D | E | | Α | Yes | 1 | | |
| Hexanol | HXN | 20 | D | D | | Α | Yes | 1 | 1.14/1.241.001.00 | |
| Hexene (all isomers) | HEX | 30 | D | С | | A | Yes | 2 | 10000 | |
| Hexylene glycol | HXG | 20 | D | É | | Α | Yes | 1 | | |
| Isophorone | IPH | 18 ² | D | E | | Α | Yes | 1 | | |
| Jet fuel: JP-4 | JPF | 33 | D | E | | Α | Yes | 1 | | |
| Jet fuel: JP-5 (kerosene, heavy) | JPV | 33 | D | D | | A | Yes | 1 | | |
| Kerosene | KRS | 33 | D | D | | Α | Yes | · :- 1 | | |
| Methyl acetate | MTT | 34 | | D | | Α | Yes | 1 | | |
| Methyl alcohol | . MAL | 20 2 | | c | | Α | Yes | ' 1 | | |
| Methylamyl acetate | MAC | 34 | D | D | | A | Yes | 1 | | |
| Methylamyl alcohol | MAA | 20 | D | D | | ? A | Yes | 1 | <u></u> | |
| | MAK | 18 | D | D | | | | | | - t- |
| Methyl amyl ketone | MBE | 41 2 | D | C | | A | Yes | 1 | | |
| Methyl tert-butyl ether | | | | | | A . | Yes | | | |
| Methyl butyl ketone | MBK | 18 | D | С | | A | Yes | 1 | | |
| Methyl butyrate | MBU | 34 | D | С | | A | Yes | 1 | | |
| Methyl ethyl ketone | MEK_ | 18 ² | D | <u>C</u> | | . A | Yes | 1 | · · · · · · · · · · · · · · · · · · · | |
| Methyl heptyl ketone | , MHK | 18 | D | _D | | A | Yes | 1 | A4 | |
| Methyl isobutyl ketone | MIK | 18 ² | D | С | | Α | Yes | 1 | | |
| Methyl naphthalene (molten) | MNA | 32 | D | E | | Α | Yes | 1 | 440 | |
| Mineral spirits | MNS | 33 | D | D | | Α | Yes | 1 | | <u> </u> |
| Myrcene | MRE | 30 | D | D | | Α | Yes | 1 | *** | |
| Naphtha: Heavy | NAG | 33 | D | # | | Α | Yes | 1 | | |
| Naphtha: Petroleum | PTN | 33 | D | # | | Α | Yes | 1 | <u>'</u> | ··· |
| Naphtha: Solvent | NSV | 33 | D | D | | Α | Yes | 1 | · | |
| Naphtha: Stoddard solvent | NSS | 33 | D | D | | Α | Yes | 1 | | |
| Naphtha: Varnish makers and painters (75%) | N∨M | 33 | D | С | | A | Yes | 1 | | |
| Nonane (all isomers), see Alkanes (C6-C9) | NAX | 31 | D | D | | Α | Yes | 1 | | |
| Nonene (all isomers) | NON | 30 | D | D | | Α | Yes | 2 | | |
| Nonyl alcohol (all isomers) | NNS | 20 ² | D | E | | Α | Yes | 1 | | |
| Nonyl phenol | , NNP | 21 | D | Е | | Α | Yes | 1 | | |
| Nonyl phenol poly(4+)ethoxylates | NPE | 40 | D | E | | Α | Yes | 1 | -27 | |
| Octane (all isomers), see Alkanes (C6-C9) | OAX | 31 | D | С | | Α | Yes | 1 | | |
| Octanoic acid (all isomers) | OAY | 4 | D | E | ····· | Α | Yes | 1 | *************************************** | |
| Octanol (all isomers) | OCX | 20 ² | D | E | | Α | Yes | 1 | | |
| Octene (all isomers) | ОТХ | 30 | D | С | | Α | Yes | 2 | | |
| Oil, fuel: No. 2 | OTW | 33 | D | D/E | | A | Yes | 1 | | |
| Oil, fuel: No. 2-D | OTD | 33 | | D | | A | Yes | <u>1</u> | *************************************** | |
| Oil, fuel: No. 4 | OFR | 33 | D | D/E | | A | Yes | 1 | -9 | |
| Oil, fuel: No. 5 | OFV | 33 | D | D/E | | . <u>A</u> | Yes | 1 | | |
| Oil, fuel: No. 6 | OSX | 33 | D | E | | ^ | Yes | 1 | | |
| Oil, misc: Crude | OIL | 33 | D | A/D | | A | Yes | 1 | | |
| On, miles. Ordus | OIL | 00 | <u> </u> | 700 | | | 169 | <u> </u> | 255 | |



09-Dec-14

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 11312 Official #: 1170768

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Shipyard: JEFFBOAT

| Cargo Identification | | | | | | Conditions of Carriage | | | | |
|---|--------------|--------------------|----------------|-------|--------------|------------------------|-------|-------------------------------------|---|-----------------|
| Name | Chem Code | Compat Group No | Sub Chapter | Grade | Hull Type | Tank Group | App'd | Re <i>covery</i> VCS Category | Special Requirements in 48 CFR 151 General and Mat'ls of | lnsp. Period |
| Oil, misc: Gas, high pour | OGP | 33 | D | E | | Α | Yes | 1 | | |
| Oil, misc: Lubricating | OLB | 33 | D | Е | | Α | Yes | 1 | | |
| Oil, misc: Residual | ORL | 33 | D | E | | Α | Yes | 1 | | |
| Oil, misc: Turbine | ОТВ | 33 | D | E | | Α | Yes | 1 | | |
| n-Pentyl propionate | PPE | 34 | D | D | | Α | Yes | 1 | | |
| alpha-Pinene | PIO | 30 | D | D. | | Α | Yes | 1 | | |
| beta-Pinene | PIP | 30 | D | D | | Α | Yes | 1 | | |
| Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether | PAG | 40 | D | Е | | Α | Yes | 1 | term 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate | PAF | 34 | D | E | | Α | Yes | 1 | | |
| Polybutene | PLB | 30 | D | E. | | Α | Yes | 1 | • | |
| Polypropylene glycol | PGC | 40 | D | Е | | Α | Yes | 1 | | |
| iso-Propyl acetate | IAC | 34 | D | С | | Α | Yes | 1 | | |
| n-Propyl acetate | PAT | 34 | D | С | | Α | Yes | 1 | | |
| iso-Propyl alcohol | IPA | 20 ² | D | С | | Α | Yes | 1 | W/WW (1 10 10 a 1 4 /s a a a a | |
| n-Propyl alcohol | PAL | 20 ² | D | С | | Α | Yes | 1 | | |
| Propylbenzene (all isomers) | PBY | 32 | D | ם | | Α | Yes | 1 | | |
| iso-Propylcyclohexane | IPX | 31 | D | D | | Α | Yes | 1 | ÷ | |
| Propylene glycol | PPG | 20 ² | D | E | | Α | Yes | 1 | | |
| Propylene glycol methyl ether acetate | PGN | 34 | D | D | | Α | Yes | 1 | | |
| Propylene tetramer | PTT | 30 | D | D | | Α | Yes | 1 | ×- | |
| Sulfolane | SFL | 39 | D | Ε | | Α | Yes | 1 | ······································ | |
| Tetraethylene glycol | TTG | 40 | D | E | | Α | Yes | 1 | | |
| Tetrahydronaphthalene | THN | 32 | D | E | | Α | Yes | 1 | | |
| Toluene | TOL | 32 | D | С | | Α | Yes | 1 | | |
| Tricresyl phosphate (less than 1% of the ortho isomer) | TCP | 34 | D | E | | Α | Yes | 1 | | |
| Triethylbenzene | TEB | 32 | D | Е | | Α | Yes | 1 | | |
| Triethylene glycol | TEG | 40 | D | E | | Α | Yes | 1 | | |
| Triethyl phosphate | TPS | 34 | D | E | | Α | Yes | 1 | 1414 | |
| Trimethylbenzene (all isomers) | TRE | 32 | D | {D} | | Α | Yes | 1 | | |
| Trixylenyl phosphate | TRP | 34 | D | E | | Α. | Yes | 1 | | |
| Undecene | UDC | 30 | D | D/E | | Α | Yes | 1 | | |
| 1-Undecyl alcohol | UND | 20 | D | E | | Α | Yes | 1 | | |
| Xylenes (ortho-, meta-, para-) | XLX | 32 | D | D | | A | Yes | 1 | | |



Department of Homeland Security United States Coast Guard

C1-1404455

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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 11312

Official #: 1170768

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Shipyard: JEFFBOAT

Hull #: 04-2262

Explanation of terms & symbols used in the Table:

Cargo Identification

Chem Code

Compatability Group No.

Note 1 Note 2

Subchapter

Subchapter D Subchapter O Note 3

A, B, C

Grade

Note 4

Hull Type NΑ

The proper shipping name as listed in 46 CFR Table 30,25-1, 46 CFR Table 151.05, and 46 CFR Part 153 Table 2. The three letter designation assigned to the cargo in the Chemical Hazards Response Information System (CHRIS) Manual

Certain mixtures of cargoes may not have a CHRIS Code assigned.

The cargo reactive group number assigned for compatibility determinations in 46 CFR Part 150 Tables I and II. In accordance with 46 CFR 150.130, the Person-in-Charge of the barge is responsible for ensuring that the compatibility requirements of 46 CFR Part 150 are met. Cargoes must be checked for compatibility using the figures, tables, and appendices of 46 CFR 150 in conjunction with the assigned reactive group number.

Because of the very high reactivity or unusual conditions of carriage or potential compatibility problems, this product is not assigned to a specific group in the Compatibility Chart. For additional compatibility information, contact Commandant (CG-3PSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. Telephone (202) 372-1425.

See Appendix I to 46 CFR Part 150 - exceptions to the compatability chart.

The subchapter in Title 46 Code of Federal Regulations under which the cargo has been classified.

Those flammable and combustible liquids listed in 46 CFR Table 30.25.1.
Those hazardous cargoes listed in 46 CFR Table 151.05 and 46 CFR Part 153 Table 2.

Those cargoes listed in 46 CFR Part 153 Table 2 are non-regulated cargoes when carried in bulk on non-oceangoing barges.

The cargo classification assigned to each flammable or combustible liquid. Grades inside of "{ }" indicate a provisional assignment based upon literature sources which were not verified by manufacturers data. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of

Flammable liquid cargoes, as defined in 46 CFR 30-10.22 Combustible liquid cargoes, as defined in 46 CFR 30-10.15.

The flarmability/combustibility grade of these cargoes may vary depending upon the flashpoint and Reid vapor pressure. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo.

Those subchapter O cargoes which are not classified as a flammable or combustible liquid.

No flammability/combustibility grade has been assigned yet, as the necessary flash point/vapor pressure data for such assignments are presently not available.

The required barge hull classification for carriage of the specified Subchapter O hazardous material cargo, see 46 CFR 151.10-1.

Designed to carry products which require the maximum preventive measures to preclude the uncontrolled release of the cargo. See 46 CFR 151.10-1(b)(1). Designed to carry products which require significant preventive measures to preclude the uncontrolled release of cargo. See 46 CFR 151.10-1(b)(3). Designed to carry products of sufficient hazard to require a moderate degree of control. See 46 CFR 151.10-1(b)(4).

Not applicable to barges certificated under Subchapter D.

Conditions of Carriage

Tank Group Vapor Recoven Approved (Y or N) The vessel's tank group (as defined in Section 4) which is authorized for carriage of the named cargo

Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo,

Conditions of Carriage

Vapor Recoven Approved (Y or N) The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo,

Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo.

VCS Category: Category 1

The specified cargo's provisional classification for vapor control systems.

(No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Federal Regulations (CFR) apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 155,750, 33 CFR 156,120, 33 CFR 156.170, 46 CFR 35.35 and 46 CFR 39. The cargo tank venting system calculations (46 CFR 39.20-11) and the pressure drop calculations (46 CFR 39.30-1(b)) must use appropriate friction factors, vapor densities and vapor growth rates.

Category 2

(Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety componenets and restricting vapor flow which could lead to cargo tank overpressurization. The vessel's owner must develop a method of ensuring all VCS safety components are functional and polymer build-up is not causing an unsafe condition due to increased pressure in the vapor control piping and cargo tanks. The method shall be acceptable to the local Officer in Charge, Marine Inspection. This is in addition to the requirements of Category 1. Please note that a material not normally considered a monomer can be a problem in detonation arrester.

Category 3

(Highly toxic) VCSs for these toxic cargoes cannot use a spill valve or rupture disk as the primary means to meet the overfill protection requirement of 46 CFR 39.20-9. This requirement is in addition to the requirements of Category 1

Category 4

(Polymerizes and highly toxic) Must comply with requirements of Categories 1, 2 and 3.

Category 5

(High vapor pressure) VCS pressure drop calculations for cargoes with a vapor pressure greater than 14.7 psia at 115 F must take into account increased vapor-air mixture densities and vapor growth rates as compared to Category 1cargoes. Consult the Marine Safety Center's VCS Guidelines for further information. This requirement is in addition to the requirements of Category 1.

Category 6

(High vapor pressure and highly toxic) Must comply with requirements of Categories 1, 3 and 5, (High vapor pressure and polymerizes) Must comply with requirements of Categories 1, 2 and 5

Category 7 none

The cargo has not been evaluated/classified for use in vapor control systems.