

UNITED STATES OF AMERICA U.S. DEPARTMENT OF HOMELAND SECURITY UNITED STATES COAST GUARD

TEMPORARY CERTIFICATE OF INSPECTION

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number.

The Coast Guard estimates that the average burden for this report is 5 mins. You may submit any comments concerning the accuracy of this burden estimate or any suggestion reducing the burden to: Commandant (G-MOC), U.S. Coast Guard, Washington, DC 20593-0001 or Office of Management and Budget, Paperwork Reduction Project (1625-0057), Washington, DC 20503,

This Temporary Certificate of Inspection is issued under the provisions of Title 46 United States Code, Section 399, in lieu of the regular certificate of inspection, and shall be in force only until the receipt on board said vessel of the original certificate of inspection, this certificate in no case to be valid after one year from the date of inspection.

VESSEL . OFFICIAL NUMBER	
VESSEL KIRBY 10235 OFFICIAL NUMBER 1239695	
CLASS GROSS TONS HOME PORT WILMINGTON, DE	
OWNER/ADDRESS OPERATOR/ADDRESS	
SEE PROXY SEE PROXY	
The following complement of licensed officers and crew is required to be carried; included in which there must be Certificated Tankermen:	
Master & Able Seamen Chief Engineer Fireman/ Watertend	ers
Chief Mate Class Pilot Ordinary Seamen 1st Asst. Engineer Oilers	
2nd Mate Radio Officer Deckhands 2nd Asst. Engineer	
In addition the vessel may carry other persons in the crew, passengers, persons in addition to the crew, and Total persons allowed	
Maximum steam pressure allowed p.s.i. DATE DRYDOCKED 30 JUN 17	113
ROUTE PERMITTED AND CONDITIONS OF OPERATION	
SEE PROXY	
INSPECTED AND APPROVED FOR THE CARRIAGE OF	
SEE PROXY	
Inspection of the above vessel was completed onI HEREBY CERTIFY that contact the vessel was in all respects in conformity with applicable vessel inspection laws and regulations prescribereunder.	on this ibed
OFFICER IN CHARGE MARINE INSPECTION INSPECTION ZONE HOUSTON - GALVESTO	N



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

14 Jul 2017 Certification Date:

14 Jul 2018 **Expiration Date:**

Temporary Certificate of Inspection

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

This Temporary Certificate of Inspection is issued under the provision of Title 46 United States Code, Section 399, in lieu of the regular certificate of inspection, and shall be in force only until the receipt on board said vessel of the original certificate of inspection, this certificate in no case to be valid after one year from the date of inspection.

Vessel Name

Official Number

IMO Number

Call Sign

KIRBY 10235

1239695

Tank Barge

Hailing Port

Hull Material

Horsepower

Propulsion

WILMINGTON, DE

Steel

UNITED STATES

Place Built

Delivery Date

Keel Laid Date

Net Tons Gross Tons

DWT

Length

ASHLAND CITY, TN

20Jun2012 31May2012

R-705 1R-705

R-200.0

1-0

UNITED STATES

Owner

KIRBY INLAND MARINE LP 18350 Market Street Channelview, TX 77530 UNITED STATES

Operator

KIRBY INLAND MARINE, LP 18350 Market St.

CHANNELVIEW, TX 77530 UNITED STATES

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 Masters

0 Licensed Mates

0 Chief Engineers

0 Qual. Member Eng. Depts

0 Chief Mates

0 First Class Pilots

0 First Assistant Engineers

0 Oilers

0 Second Mates

0 Radio Officers

0 Second Assistant Engineers

0 Crew Members

0 Third Mates

0 Able Seamen

0 Third Assistant Engineers

0 Master First Class Pilot

0 Ordinary Seamen

0 Licensed Engineers

0 Mate First Class Pilots

0 Deckhands

0 Non Licensed Engineer Dept

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---

Also, in fair weather only, coastwise, not more than twelve (12) miles from shore between St. Marks and Carrabelle, Florida.

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 per 46 CFR 31.10-21(a)(1) and the cognizant OCMI notified in writing as soon as this change in status occurs.

This tank barge is participating in the Eight-Ninth Coast Guard District's Tank Barge Streamlined Inspection

SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION

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

The state of the s
_

This certificate issued by:

GREG A. CALLAGHAN, CDR, USCG, BY DIRECTION

Officer in Charge, Marine Inspection

Houston-Galveston

Inspection Zone



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

Certification Date: 14 Jul 2017 14 Jul 2018 **Expiration Date:**

Temporary Certificate of Inspection

Vessel Name: KIRBY 10235

Program (TBSIP) program. Inspection activities aboard this barge shall be conducted in accordance with the its Tank Barge Action Plan (TAP). Inspection issues concerning this barge should be directed to OCMI Houston-

---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

30Jun2027

30Jun2017

20Jun2012

Internal Structure

30Jun2022

30Jun2017

20Jun2012

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

Authorization:

GRADE "A" AND LOWER AND SPECIFIED HAZARDOUS CARGOES

Total Capacity

Units

Highest Grade Type Part151 Regulated Part153 Regulated Part154 Regulated

10300

Barrels

No

No

Hazardous Bulk Solids Authority

Loading Constraints - Structural

Tank Number	Max Cargo Weight per Tank (short tons)	Maximum Density (lbs/gal)
1	763	13.57
2	703	13.57
3	698	13.57

Loading Constraints - Stability

Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Description
III	1551	9ft 6in	11.03	Lakes, Bays, and Sounds
ш	1497	9ft 3in	12.08	Lakes, Bays, and Sounds
III	1443	9ft 0in	12.91	Lakes, Bays, and Sounds
111	1390	8ft 9in	13.57	Lakes, Bays, and Sounds
II	1443	9ft 0in	9.99	Lakes, Bays, and Sounds
II	1390	8ft 9in	11.66	Lakes, Bays, and Sounds
11	1336	8ft 6in	12.41	Lakes, Bays, and Sounds
11	1283	8ft 3in	12.83	Lakes, Bays, and Sounds
11	1229	8ft 0in	13.33	Lakes, Bays, and Sounds
11	1176	7ft 9in	13.57	Lakes, Bays, and Sounds

Conditions Of Carriage

Only those cargoes named in the vessel's cargo authority attachment Marine Safety Center letter Serial # C1-1202419 dated May 11, 2012, may be carried and then only in the tanks indicated.

When the vessel is carrying cargoes containing 0.5% or more benzene by volume, the person in charge is responsible for ensuring the provisions of 46 CFR part 197, subpart C are applied.

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 MSC letter Serial # C1-1202419 dated May 11, 2012, and has been found acceptable for collection of bulk liquid cargo vapors annotated with "yes" in the CAA's VCS column.



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

Certification Date: 14 Jul 2017 Expiration Date: 14 Jul 2018

Temporary Certificate of Inspection

Vessel Name: KIRBY 10235

Per 46 CFR 150.130, the person in charge of the vessel is responsible for ensuring the compatibility requirements of 46 CFR 150 are met. Cargoes must be checked for compatibility using figures, tables, and appendices of 46 CFR 150 in conjunction with the reactive group numbers from the "Compat Group No" column listed in the vessel's cargo authority attachment.

The maximum design density of cargo which may be filled to the tank top is 9.99 lbs/gal.

Note: per 46 CFR 151.10(c)(2) the maximum tank weights listed above reflect uniform (within 5%) loading at the deepest draft allowed. When carrying subchapter "O" cargoes at shallower drafts, the barge should always be loaded uniformly.

The cargo tank top is suitable for a maximum allowable working pressure (MAWP) of 6.5 psig.

--- Inspection Status ---

Fuel Tanks

Internal	Examinations
----------	--------------

Tank ID Previous Last Next
Machinery Deck - 20Jun2012 -

Cargo Tanks

"Cargo Tanks"						*
	Internal Exam			External Exar	n	
Tank Id	Previous	Last	Next	Previous	Last	Next
1	20Jun2012	30Jun2017	30Jun2027	-	-	=
2	20Jun2012	30Jun2017	30Jun2027	=.		_
3	20Jun2012	30Jun2017	30Jun2027	=	. =	, w
			Hydro Test			
Tank Id	Safety Valves		Previous	Last	Next	
1	· ·		÷	-	-	
2	1 3 2		:=		-	
9			2 ==	-	-	

---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

Class Type

2

B-II

END



Certificate of Inspection

Serial #: C1-1202419 Dated:

11-May-12

Cargo Authority Attachment

Vessel Name: KIRBY 10235 Official #: 1239695

Shipyard: Trinity Marine, Ashland

City

Hull #: 4822

Tank Group Information	Cargo Identification			Cargo	Tanks			Cargo Transfer		Environmental Control		Fire	Special Requirements				
Trik Grp Tanks in Group	Density	Press.	Temp.	Hull	Seq	Туре	Vent	Gauge	Pipe Class	Cont	Tanks	Handling Space	Protection Provided	General	Materials of Construction	Elec Haz	Temp Cont
A #1, #2, #3	13.6	Almos.	Elev	11	1ii 2ii	Integral Gravity	PV	Closed	11	G-1	NR	NA	Portable	40-1(f)(1), .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	No

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.

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.

List of Authorized Cargoes

Cargo Identificatio	n					Conditions of Carriage							
							Vapor Re	acovery					
Name	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									V Company				
Acetonitrile	ATN	37	0	С	(II	Α	Yes	3	No	G			
Acrylonitrile	ACN	15 ²	0	С	11	Α	Yes	4	.50-70(a), .55-1(e)	G			
Adiponitrile	ADN	37	0	E	- 11	Α	Yes	1	No	G			
Alkyl(C7-C9) nitrates	AKN	34 2	O	NA	ш	Α	No	N/A	.50-81, .50-86	G			
Aminoethylethanolamine	AEE	8	0	E	111	Α	Yes	1	.55-1(b)	G			
Ammonium bisulfite solution (70% or less)	ABX	43 2	0	NA	III	Α	No	N/A	.50-73, .56-1(a), (b), (c)	G			
Ammonium hydroxide (28% or less NH3)	AMH	6	0	NA	III	Α	No	N/A	.56-1(a), (b), (c), (f), (g)	G			
Anthracene oil (Coal tar fraction)	AHO	33	0	NA	11	A	No	N/A	No	G			
Benzene	BNZ	32	0	С	111	Α	Yes	1	.50-60	G			
Benzene or hydrocarbon mixtures (having 10% Benzene or more)	внв	32 ²	0	С	111	Α	Yes	1	.50-60	G			
Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more)	ВНА	32 ²	0	С	Ш	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	111	Α	Yes	1	.50-60	G			
Butyl acrylate (all isomers)	BAR	14	0	D	ttt	Α	Yes	2	50-70(a), .50-81(a), (b)	G			
Butyl methacrylate	вмн	14	0	D	111	Α	Yes	2	.50-70(a), .50-81(a), (b)	G			
Butyraldehyde (all isomers)	BAE	. 19	0	С	111	Α	Yes	1	.55-1(h)	G			
Camphor oil (light)	CPO	18	0	D	11	Α	No	N/A	No	G			
Carbon tetrachloride	CBT	36	0	NA	Itl	Α	No	N/A	No	G			
Caustic potash solution	CPS	5 ²	0	NA	111	Α	No	N/A	.50-73, .55-1(j)	G			
Caustic soda solution	css	5 ²	0	NA	111	Α	No	N/A	.50-73, .55-1(j)	G			
Chemical Oil (refined, containing phenolics)	COD	21	0	E	11	Α	No	N/A	.50-73	G			
Chlorobenzene	CRB	36	0	D	111	Α	Yes	1	Na	G			
Chloroform	CRF	36	0	NA	111	Α	Yes	3	No	G			
Coal tar naphtha solvent	NCT	33	0	D	111	Α	Yes	1	.50-73	G			
Coal tar pitch (molten)	CTP	33	0	E	111	Α	No	N/A	.50-73	G			
Creosote	CCW	21 2	0	E	111	Α	Yes	1	No	G			
Cresols (all isomers)	CRS	21	0	E	111	Α	Yes	1	No	G			
Cresylate spent caustic	CSC	5	0	NA	111	Α	No	N/A	.50-73, .55-1(b)	G			
Cresylic acid tar	CRX		0	E	111	Α	Yes	1	.55-1(f)	G			
Crotonaldehyde	CTA	19 ²	0	С	11	Α	Yes	4	.55-1(h)	G			
Crude hydrocarbon feedstock (containing Butyraldehydes and Ethylpropyl acrolein)	CHG		0	С	III	Α	No	N/A	No	G			
Cyclohexanone	CCH	18	0	D	Ш	A	Yes	1	.56-1(a), (b)	G			
	2011					m	103		, e	300			



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10235

Shipyard: Trinity Marine,

Ashland City

Serial #: C1-1202419

Dated: 11-May-12

Hull #: 4822

Official #: 1239695

Page 2 of 8

Cargo Identification	711					Conditions of Carriage						
Name Cyclohexanone, Cyclohexanol mixture	Chem Code CYX	Compat Group No 18 2	Sub Chapter O	Grade	Hull Type	Tank Group A	App'd	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of .56-1 (b)	Insp. Perio		
Cyclohexylamine	CHA	7	0	D	111	Α	Yes	1	.56-1(a), (b), (c), (g)	G		
Cyclopentadiene, Styrene, Benzene mixture	CSB	30	O	D	111	Α	Yes	1	.50-60, .56-1(b)	G		
iso-Decyl acrylate	IAI	14	0	E	- 111	Α	Yes	2	.50-70(a), .50-81(a), (b), .55-1(c)	G		
Dichlorobenzene (all isomers)	DBX	36	Q	E	111	Α	Yes	3	.56-1(a), (b)	G		
1,1-Dichloroethane	DCH	36	0	С	111	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	111	A	Yes	5	No	G		
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	DDE	43	0	E	111	Α	No	N/A	.56-1(a), (b), (c), (g)	G		
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution	DAD	0 1,2	0	Α	111	Α	No	N/A	.56-1(a), (b), (c), (g)	G		
2,4-Dichlorophenoxyacetic acid, trilsopropanolamine salt solution	DTI	43 2	0	E	111	Α	No	N/A	.56-1(a), (b), (c), (g)	G		
1,1-Dichloropropane	DPB	36	0	С	111	Α	Yes	3	No	G		
1,2-Dichloropropane	DPP	36	0	С	111	Α	Yes	3	No	G		
1,3-Dichloropropane	DPC	36	0	С	111	Α	Yes	3	No	G		
1,3-Dichloropropene	DPU	15	0	D	tt	Α	Yes	4	No	G		
Dichloropropene, Dichloropropane mixtures	DMX	15	0	С	11	Α	Yes	1	No	G		
Diethanolamine	DEA	8	0	E	Ш	Α	Yes	1	.55-1(c)	G		
Diethylamine	DEN	7	0	С	111	Α	Yes	3	.55-1(c)	G		
Diethylenetriamine	DET	7 2	0	E	111	Α	Yes	1	.55-1(c)	G		
Diisobutylamine	DBU	7	0	D	Ш	Α	Yes	3	.55-1(c)	G		
Diisopropanolamine	DIP	8	0	E	Ш	Α	Yes	1	.55-1(c)	G		
Diisopropylamine	DIA	7	0	С	П	Α	Yes	3	.55-1(c)	G		
N,N-Dimethylacetamide	DAC	10	0	E	Ш	Α	Yes	3	.56-1(b)	G		
Dimethylethanolamine	DMB	8	0	D	III	Α	Yes	1	.56-1(b), (c)	G		
Dimethylformamide	DMF	10	0	D	111	Α	Yes	1	.55-1(e)	G		
Di-n-propylamine	DNA	7	0	С	11	Α	Yes	3	.55-1(c)	G		
Dodecyldimethylamine, Tetradecyldimethylamine mixture	DOT	7	0	E	Ш	Α	No	N/A	.56-1(b)	G		
Dodecyl diphenyl ether disulfonate solution	DOS	43	0	#	11	Α	No	N/A	No	G		
EE Glycol Ether Mixture	EEG	40	0	D	Ш	Α	No	N/A	No	G		
Ethanolamine	MEA	8	0	E	111	Α	Yes	1	.55-1(c)	G		
Ethyl acrylate	EAC	14	Q	С	III	Α	Yes	2	.50-70(a), .50-81(a), (b)	G		
Ethylamine solution (72% or less)	EAN	7	0	Α	11	Α	Yes	6	.55-1(b)	G		
N-Ethylbutylamine	EBA	7	0	D	111	A	Yes	3	.55-1(b)	G		
N-Ethylcyclohexylamine	ECC	7	0	D	111	Α	Yes	1	.55-1(b)	G		
Ethylene cyanohydrin	ETC	20	0	E	111	Α	Yes	1	No	G		
Ethylenediamine	EDA	7 2	Q	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	Е	111	Α	No	N/A	Na	G		
Ethylene glycol monoalkyl ethers	EGC	40	Q	D/E	111	Α	Yes	1	No	G		
Ethylene glycol propyl ether	EGP	40	O	E	111	Α	Yes	1	No	G		
2-Ethylhexyl acrylate	EAI	14	0	Е	111	Α	Yes	2	.50-70(a), .50-81(a), (b)	G		
Ethyl methacrylate	ETM	14	0	D/E	Ш	A	Yes	2	.50-70(a)	G		
2-Ethyl-3-propylacrolein	EPA	19 ²	0	E	Ш	Α	Yes	1	No	G		
Formaldehyde solution (37% to 50%)	FMS	19 2	0	D/E	Ш	Α	Yes	1	.55-1(h)	G		
Furfural	FFA	19	0	D	Ш	Α	Yes	1	.55-1(h)	G		
Glutaraldehyde solution (50% or less)	GTA	19	0	NA	111	Α	No	N/A	No	G		
Hexamethylenediamine solution	HMC	7	0	E	Ш	Α	Yes	1	.55-1(c)	G		
Hexamethyleneimine	HMI	7	0	C	11	A	Yes	1	.56-1(b), (c)	G		

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10235

Shipyard: Trinity Marine,

Ashland City

Serial #: C1-1202419

Dated: 11-May-12

Hull #: 4822

Official #: 1239695

Page 3 of 8

Cargo Identification	,		,				-		tions of Carriage	-
Nama Hydrocarbon 5-9	Chem Code HFN	Compat Group No	Sub Chapter O	Grade C	Hull Type III	Tank Group A	App'd (Y or N) Yes	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of .50-70(a), .50-81(a), (b)	Insp. Period G
Isoprene	IPR	30	0	Α	111	Α	Yes	7	.50-70(a), .50-81(a), (b)	G
Isoprene, Pentadiene mixture	IPN		0	В	111	Α	No	N/A	.50-70(a), .55-1(c)	G
Kraft pulping liquors (free alkali content 3% or more)(including: Black, Green, or White liquor)	KPL	5	0	NA	111	Α	No	N/A	.50-73, .56-1(a), (c), (g)	G
Mesityl oxide	MSO	18 ²	0	D	111	Α	Yes	1	Na	G
Methyl acrylate	MAM	14	0	С	111	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Methylcyclopentadiene dimer	MCK	30	0	С	111	Α	Yes	1	No	G
Methyl diethanolamine	MDE	8	0	E	Ш	Α	Yes	1	.56-1(b), (c)	G
2-Methyl-5-ethylpyridine	MEP	9	0	E	111	Α	Yes	1	.55-1(e)	G
Methyl methacrylate	MMM	14	0	С	Itt	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
2-Methylpyridine	MPR	9	0	D	Ш	Α	Yes	3	.55-1(c)	G
alpha-Methylstyrene	MSR	30	0	D	111	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Morpholine	MPL	7 2	0	D	111	Α	Yes	1	.55-1(c)	G
Nitroethane	NTE	42	0	D	11	Α	No	N/A	.50-81, .56-1(b)	G
1- or 2-Nitropropane	NPM	42	0	D	111	Α	Yes	1	.50-81	G
1,3-Pentadiene	PDE	30	0	Α	III	Α	Yes	7	.50-70(a), .50-81	G
Perchloroethylene	PER	36	0	NA	tit	Α	No	N/A	No	G
Phthalic anhydride (molten)	PAN	11	0	E	tii	Α	Yes	1	No	G
Polyethylene polyamines	PEB	7 2	0	E	111	A	Yes	1	.55-1(e)	G
iso-Propanolamine	MPA	8	0	E	tii	A	Yes	1	.55-1(c)	G
Propanolamine (iso-, n-)	PAX	8	0	E	Ш	A	Yes	1	.58-1(b), (c)	G
iso-Propylamine	IPP	7	0	Α	ш	A	Yes	5	.55-1(c)	G
Pyridine	PRD	9	0	С	111	A	Yes	1	.55-1(e)	G
Sodium acetate, Glycol, Water mixture (3% or more Sodium Hydroxide)	SAP		0		111	Α	No	N/A	.50-73, .55-1(j)	G
Sodium aluminate solution (45% or less)	SAU	. 5	0	NA	111	Α	No	N/A	.50-73, .56-1(a), (b), (c)	G
Sodium chlorate solution (50% or less)	SDD	0 1,2	2 0	NA	111	A	No	N/A	.50-73	G
Sodium hypochlorite solution (20% or less)	SHQ	5	0	NA	111	Α	No	N/A	.50-73, .56-1(a), (b)	G
Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less)	SSH	0 1,2	2 0	NA	111	Α	Yes	1	.50-73, .55-1(b)	G
Sodium sulfide, hydrosulfide solution (H2S greater than 15 ppm but less than 200 ppm)	SSI	0 1,2	0	NA	111	Α	No	N/A	.50-73, .55-1(b)	G
Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm)	SSJ	0 1,2	2 0	NA	11	Α	No	N/A	.50-73, .55-1(b)	G
Styrene (crude)	STX		0	D	111	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	NΑ	111	Α	No	N/A	Nα	G
Tetraethylenepentamine	TTP	7	0	E	111	Α	Yes	1	.55-1(c)	G
Tetrahydrofuran	THE	41	0	С	111	Α	Yes	1	.50-70(b)	G
Toluenediamine	TDA	9	0	E	11	Α	No	N/A	.50-73, .56-1(a), (b), (c), (g)	G
1,2,4-Trichlorobenzene	ТСВ	36	0	E	111	A	Yes	1	No	G
1,1,2-Trichloroethane	тсм	36	0	NA	111	Α	Yes	1	.50-73, .56-1(a)	G
Trichloroethylene	TCL	36 ²	0	NA	Ш	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	111	A	Yes	1	.55-1(b)	G
Triethylamine	TEN	7	-	C	11	A	Yes	3	.55-1(e)	G
Triethylenetetramine	TET	7 2	0	E	111	A	Yes	1	,55-1(b)	G
Triphenylborane (10% or less), caustic soda solution	TPB	5	-0	NA NA	111	A	No	N/A		G
	TSP	5	0	725000	111	A	No	N/A		G
Trisodium phosphate solution	101	6	0	NA	ш		INO	IV/A		G

Serial #: C1-1202419

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10235

Shipyard: Trinity Marine,

Ashland City

Official #: 1239695

Page 4 of 8

Hull #: 4822

Cargo Identificatio	n							Condi	ions of Carriage	
8	Chem	Compat	Sub		Hull	Tank	Vapor R App'd	ecovery VCS	Special Requirements in 46 CFR	Inna
Name Vanillin black liquor (free alkall content, 3% or more).	Code	Group No	Chapter	Grade NA	Type	Group			151 General and Mat'ls of .50-73, .56-1(a), (c), (g)	Insp. Period G
Vinyl acetate	VAM	13	0	С	111	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Vinyl neodecanate	VND	13	0	E	111	Α	No	N/A	.50-70(a), .50-81(a), (b)	G
Vinyltoluene	VNT	13	0	D	111	Α	Yés	2	.50-70(a), .50-81, .56-1(a), (b), (c), (G
Sub-sharter D. Correct Authorized for Vanor Contr	al.				5000					
Subchapter D Cargoes Authorized for Vapor Contr	ACT	18 ²	D	С		Α	Yes	1		
Acetophenone	ACP	18	D	E		A	Yes	1	Secretarion de Secretario de Sec	
Alcohol(C12-C16) poly(1-6)ethoxylates	APU	20	D	E		A	Yes	- 1	Mark Stronger	
Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates	AEB	20	D	E		Α	Yes	1		
Amyl acetate (all isomers)	AEC	34	D	D		Α	Yes	1		
Amyl alcohol (iso-, n-, sec-, primary)	AAI	20	D	D		A	Yes	1		-
Benzyl alcohol	BAL	21		Ē		A	Yes	1	***************************************	
Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3)	BFX	20	D	E		A	Yes	1		
glycols, Polyalkylene (C2-C10) glycol monoalkyl (C1-C4) ethers, and their borate esters)	DIA	20		_		A	103	1 0 0		
Butyl acetate (all isomers)	BAX	34	D	D		Α	Yes	1		
Butyl alcohol (iso-)	IAL	20 ²	D	D		Α	Yes	1		
Butyl alcohol (n-)	BAN	20 ²	D	D		Α	Yes	1		
Butyl alcohol (sec-)	BAS	20 ²	D	С		A	Yes	1	-1/4	
Butyl alcohol (tert-)	BAT	ame induc	D	С		Α	Yes	1	X 2// 200	
Butyl benzyl phthalate	BPH	34	D	E		Α	Yes	1		
Butyl toluene	BUE	32	D	D	•	Α	Yes	1	· · · · · · · · · · · · · · · · · · ·	Alexandra S
Caprolactam solutions	CLS	22	D	Ē		Α	Yes	1		
Cyclohexane	CHX	31	D	C		A	Yes	1	TO THE OWNER OF THE PERSON OF	
Cyclohexanol	CHN	20	D	E		A	Yes	1		
1,3-Cyclopentadiene dimer (molten)	CPD	30	D	D/E		Α	Yes	2		t
p-Cymene	CMP	32	D	D		A	Yes	1		
iso-Decaldehyde	IDA	19	D	E		Α	Yes	1		
n-Decaldehyde	DAL	19	D	E		Α	Yes	1		and the second
Decene	DCE	30	D	D		A	Yes	1		
Decyl alcohol (all isomers)	DAX	20 ²		E	× - 1	A	Yes	1		
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	D	E		A	Yes	1		
Diacetone alcohol	DAA	20 2	D			A	Yes	1		
ortho-Dibutyl phthalate	DPA	34		E		A	Yes	1		
Diethylbenzene	DEB	32	D	D		A	Yes	1	The state of the s	-
Diethylene glycol	DEG	40 2	D	E		A	Yes	1		
Diisobutylene	DBL	30	D	C		A	Yes	1		
Disobutyl ketone	DIK	18	D	D	-	A	Yes	<u> </u>	+ **	
Disopropylbenzene (all isomers)	DIX	32		E		$\frac{1}{A}$	Yes	1	1000 CONTRACTOR OF THE CONTRAC	
Dimethyl phthalate	DTL	34	D	E		A	Yes	1		
Dioctyl phthalate	DOP	34	D	E		A	Yes	1		
Dipentene	DPN	30	D	D		A	Yes	1		
Diphenyl	DIL	32	D	D/E			Yes			
Diphenyl, Diphenyl ether mixtures	DDO	33	D	E	AX-	A	Yes	1	. —	
	DPE	41	D	5.40		0000		1		-
Diphenyl ether	DPG	S 800		{E}		A	Yes	1		11
Dipropylene glycol	DFF	40	D D	E		A	Yes	1	and the second second second second	
Distillates: Flashed feed stocks	DEF	33	ט			Α	Yes	_1		

Serial #

Dated: 11-May-12

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10235

Shipyard: Trinity Marine,

Ashland City

Hull #: 4822

Cargo Identification	n							Condi	tions of Carriage	TI.
	Ch	0	0.5		17.30	T1		Recovery	Caralal Danislana atala 45 OFD	No.
Name Dodecene (all isomers)	Chem Code DOZ	Compat Group No 30	Sub Chapter D	Grade D	Hull Type	Tank Group A	App'd (Y or N) Yes	VCS Category 1	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period
Dodecylbenzene, see Alkyl(C9+)benzenes	DDB	32	D	E		Α	Yes	1		
2-Ethoxyethyl acetate	EEA	34	D	D		Α	Yes	1		
Ethoxy triglycol (crude)	ETG	40	D .	E		Α	Yes	1		
Ethyl acetate	ETA	34	D	С	CAT MAKE TO	Α	Yes	1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	W - 100 C
Ethyl acetoacetate	EAA	34	D	E		Α	Yes	1		
Ethyl alcohol	EAL	20 ²	D	С		Α	Yes	1		
Ethylbenzene	ETB	32	D	С		Α	Yes	1		
Ethyl butanol	EBT	20	D	D		Α	Yes	1		
Ethyl tert-butyl ether	EBE	41	D	С		A	Yes	1	_	
Ethyl butyrate	EBR	34	D	D		Α	Yes	1		
Ethyl cyclohexane	ECY	31	D	D		Α	Yes	1		
Ethylene glycol	EGL	20 ²	D	Ε		Α	Yes	1		
Ethylene glycot butyl ether acetate	EMA	34	D	E		Α	Yes	1		
Ethylene glycol diacetate	EGY	34	D	E		Α	Yes	1		
Ethylene glycot phenyl ether	EPE	40	D	E		Α	Yes	1		
Ethyl-3-ethoxypropionate	EEP	34	D	D		Α	Yes	1	20 cess 10 ces	
2-Ethylhexanol	EHX	20	D	E		Α	Yes	1		
Ethyl propionate	EPR	34	D	С		Α	Yes	1		
Ethyl toluene	ETE	32	D	D		A	Yes	1		
Formamide	FAM	10	D	E		Α	Yes	1	*****	
Furfuryl alcohol	FAL	20 2	D	E		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		Series Para
Gasolines: Automotive (containing not over 4.23 grams lead per gallon)	GAT	33	D	С		Α	Yes	1		13.000
Gasolines: Aviation (containing not over 4.86 grams of lead per gallon)	GAV	33	D	С		Α	Yes	1		ZI
Gasolines: Casinghead (natural)	GCS	33	D	A/C		Α	Yes	1		
Gasolines: Polymer	GPL	33	D	A/C		Α	Yes	1		
Gasolines: Straight run	GSR	33	D	A/C		Α	Yes	1		
Glycerine	GCR	20 ²	D	E		Α	Yes	1		
Heptane (all isomers), see Alkanes (C6-C9) (all isomers)	HMX	31	D	С		A	Yes	1		-
Heptanoic acid	HEP	4	D	E	1	Α	Yes	1		
Heptanol (all isomers)	HTX	20	D	D/E		A	Yes	1		
Heptene (all isomers)	HPX	30	D	С		A	Yes	2		
Heptyl acetate	HPE	34	D	E		Α	Yes	1		
Hexane (all isomers), see Alkanes (C6-C9)	HXS	31 2	D	B/C		A	Yes	1	No. Wilder	
Hexanoic acid	НХО	4	D	E		A	Yes	1		
Hexanol	HXN	20	D	D		A	Yes	1	NATIONAL PROPERTY OF THE PARTY	
Hexene (all isomers)	HEX	30	D	C	-HDE15-35-3	A	Yes	2		
Hexylene glycol	HXG	20	D	E		A	Yes	1		-
Isophorone	IPH	18 ²	D	E	-	A	Yes	1		
Jet fuel: JP-4	JPF	33	D	E			Yes	1		
Jet fuel: JP-5 (kerosene, heavy)	JPV	33	D	D		A	Yes	<u> </u>		
Kerosene	KRS	33	D	D		A	Yes	1		
Methyl acetate	MTT	34	D	D		A	Yes	1	3,70	
	MAL	20 ²	D	С		A	Yes	1		
Methyl alcohol	MAC	34		D		9255		1		
Methylamyl acetate	IVIAU	34	D	U		Α	Yes	I.		

^{***} This document is only valid when attached to, and referenced by a current, valid Certificate of Inspection. ***

Serial #:

11 May 12

ed: 11-May-12



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10235

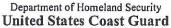
Shipyard: Trinity Marine, Ashland City

Hull #: 4822

Official #: 1239695

Page 6 of 8

Cargo Identification						Conditions of Carriage					
	Ch		0.4		F6.70	7		Recovery	0 - / - ID - 1		
Name Methylamyl alcohol	Chem Code MAA	Compat IGroup No 20	Sub Chapter D	Grade D	Hull Type	Tank Group A	App'd (Y or N) Yes	VCS Category 1	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period	
Methyl amyl ketone	MAK	18	D	D		Α	Yes	1			
Methyl tert-butyl ether	MBE	41 2	D	С		Α	Yes	1			
Methyl butyl ketone	MBK	18	D	C	*	Α	Yes	1			
Methyl butyrate	MBU	34	D	С		Α	Yes	1	3 185 185		
Methyl ethyl ketone	MEK	18 ²	D	С		Α	Yes	1			
Methyl heptyl ketone	MHK	18	D .	D		Α	Yes	1			
Methyl isobutyl ketone	MIK	18 ²	D	С	118104	Α	Yes	1			
Methyl naphthalene (molten)	MNA	32	D	E	Х.	Α	Yes	1			
Mineral spirits	MNS	33	D	D		Α	Yes	1			
Myrcene	MRE	30	D	D		Α	Yes	1			
Naphtha: Heavy	NAG	33	D	#		Α	Yes	1			
Naphtha: Petroleum	PTN	33	D	#		Α	Yes	1			
Naphtha: Solvent	NSV	33	D	D		Α	Yes	1			
Naphtha: Stoddard solvent	NSS	33	D	D		Α	Yes	1		10000	
Naphtha: Varnish makers and painters (75%)	NVM	33	D	С		Α	Yes	1			
Nonane (all isomers), see Alkanes (C6-C9)	NAX	31	D	D		Α	Yes	1			
Nonene (all isomers)	NON	30	D	D		A	Yes	2			
Nonyl alcohol (all isomers)	NNS	20 ²	D	E		A	Yes	<u>-</u>	S		
Nonyl phenol	NNP	21	D	E		A	Yes	1			
Nonyl phenol poly(4+)ethoxylates	NPE	40	D	 E		- <u>A</u>	Yes	1			
Octane (all Isomers), see Alkanes (C6-C9)	OAX	31		C		A	Yes	1			
Octanoic acid (all isomers)	OAY	4	D	E		A	Yes	1	and the supplier		
	ocx	20 2	D	E			Yes	1			
Octanol (all isomers)	OCX	30	D	C		100	Mana				
Octene (all isomers)			<u> </u>			A	Yes	2		has the control of	
Oil, fuel: No. 2	OTW	33	500.0	D/E		Α	Yes				
Oil, fuel: No. 2-D	OTD	33	D	D		A	Yes	1			
Oil, fuel: No. 4	OFR	33	D	D/E		Α	Yes	1			
Oil, fuel: No. 5	OFV	33	D	D/E	H1120-10	Α	Yes	1			
Oil, fuel: No. 6	OSX	33	D	E		A	Yes	1			
Oil, misc; Crude	OIL	33	D	C/D		A	Yes	1	o manufactura de la compactica de la com		
Oil, misc: Diesel	ODS	33	D	D/E		A	Yes	1			
Oil, misc: Gas, high pour	OGP	33	D	E		Α	Yes	1		on and and and and	
Oil, misc: Lubricating	OLB	33	D	E		Α	Yes	1			
Oil, misc: Residual	ORL	33	D	E		Α	Yes	1			
Oil, misc: Turbine	OTB	33	D	E		Α	Yes	1			
Pentene (all Isomers)	PTX	30	D	Α		Α	Yes	5			
n-Pentyl propionate	PPE	34	D	D		A	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	E		Α	Yes	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	E		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			
n-Propyl alcohol	PAL	20 ²	D	С		Α	Yes	1			



Certificate of Inspection

Serial #: C1-1202419 Dated: 11-May-12

Cargo Authority Attachment

Vessel Name: KIRBY 10235

Shipyard: Trinity Marine,

Ashland City

Hull #: 4822

Official #: 1239695

Page 7 of 8

Cargo Identification						Conditions of Carriage					
Name Propylbenzene (all isomers)	Chern Code PBY	Compat Group No 32	Sub Chapter D	Grade D	Hull Type	Tank Grouo A	App'd	Recovery VCS Category 1	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period	
iso-Propylcyclohexane	IPX	31	D	D		Α	Yes	1			
Propylene glycol	PPG	20 ²	D	E		Α	Yes	1		720	
Propylene glycol methyl ether acetate	PGN	34	D	D		Á	Yes	1	*		
Propylene tetramer	PTT	30	D	D		Α	Yes	1		754	
Sulfolane	SFL	39	D	E		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	THE CONTRACTOR OF THE PARTY OF		
Tricresyl phosphate (less than 1% of the ortho isomer)	TCP	34	D	E		Α	Yes	1			
Triethylbenzene	TEB	32	D	E		Α	Yes	1			
Triethylene glycol	TEG	40	D	E		Α	Yes	1		50000 0	
Triethyl phosphate	TPS	34	D	E		Α	Yes	1			
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			



Serial #: C1-1202419

Dated: 11-May-12

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10235

Official #: 1239695

Page 8 of 8

Shipyard: Trinity Marine,

Hull #: 4822

Explanation of terms & symbols used in the Table:

Cargo Identification

Chem Code

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.

Compatability Group No.

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

Note 2

Chart. For additional compatibility information, contact Commandant (CG-3PSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. Telephone

Subchapter Subchapter O

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.

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

Those cargoes listed in 46 CFR Part 163 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 that grade of cargo.

A. B. C D, E Note 4 Flammable liquid cargoes, as defined in 46 CFR 30-10.22

Frantinable injunct cargoes, as defined in 46 CFR 30-10.22.

Combustible liquid cargoes, as defined in 46 CFR 30-10.16.

The flammability/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.

Hull Type

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

e required barge ribit classification for carriage of the special a supplied of the class of the 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 sufficeint 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 Recover Approved (Y or N) The vessel's lank 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

Tank Group Vapor Recover Approved (Y or N)

The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" tisted 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:

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

Category 1

(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 156,120, 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 components 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,

Calegory 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 Category 7

(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.

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