

Dept. of Home Sec . U.SCG, CG-841 (Rev 4-2000)(v2)

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

Certification Date: 04 Jun 2020 Expiration Date: 04 Jun 2025

Certificate of Inspection

For ships on international vayages this certificate fulfills the requirements of SCLAS 74 as amended, requirement VY14, for a SAFE MANIQUE DOCUMENT

	a	Roal Humber	BIO Num	ber	Call Sign	Birrese	
KIRBY 11011B	12					Tank 8	large
Heing Put WILMINGTON, DE		Hull Material	Ham	power	Propulators		
WILMINGTON, DE		Steel					
UNITED STATES							
Place Bulk		Delvery Date	Keel Lard Date	Gross Tana	Not Ture	DWT	Longiti
ASHLAND CITY, TN		13Apr2010	19Mar2010	R-705	R-705		R-200 B
UNITED STATES				٠	<b>b</b>		10
Ourser			Operate				
KIRBY INLAND MARINE 55 WAUGH DRIVE SUIT				Y INLAND O MARKET	MARINE, LP		
HOUSTON, TX 77007			CHA	NNELVIEW	, TX 77530		
UNITED STATES			UNIT	ED STATE	S		
This vessel must be man	ned with the folio	wing licensed	and unlicense	i Personnel	Included in w	hich those w	and he
O Certified Lifeboatmen,	D Certified Tanks	imen, 0 HSC	Type Rating, a	and 0 GMD	SS Operators.	TIMAL DIGITS (II	net 66
O Masters	O Ucensed Mate		Engineers		ders .		
0 Chief Mates	0 First Class Pite		ssistant Enginee				
0 Second Mates	0 Radio Officers		d Assistant Engir				
0 Third Mates	0 Able Seamen		Assistant Enginer	ira.			
Master First Class Pilot     Mate First Class Pilots	0 Ordinary Search 0 Deckhands		led Engineers led Member Engir				
in addition, this vessel ma Persons allowed: 0					ns in addition to	crew, and	no Others. Total
Route Permitted And C	Conditions Of O	naration:				3777	
Lakes, Bays, and			Constwin	·			
marroof mayor att	-				between St. H	lerks and Co	rrabelle,
Also, in fair weather (			,				
This vessel has been grass operated in salt ware state of the salt warder intervals per 46	ranted fresh wa	iter service	examination	interval p	er 46 CFR 31.		If this years
This vessel has been gis operated in salt was water intervals per 46 occurs.	ranted fresh water more than 6 CFR 31.10-21(a	eter service 5 months in 4 1)(1) and the	examination my 12 month cognisant 0	interval p period, th CMI notifi	er 46 CFR 31. • vessel must •d in writing	be examine	If this vessed using salt this change
This vessel has been gis operated in salt water intervals per 46 occurs. This tank barge is part	ranted fresh water more than 6 CFR 31.10-21(a	iter service 5 months in 4 1)(1) and the	examination may 12 month a cognizent 0	interval p period, th CMI notifi t Guard Di	er 46 CFR 31. • vessel must •d in writing	be examine	If this vessed using salt this change
This vessel has been give the period of the	ranted fresh water more than 6 CFR 31.10-21(a ticipating in to CFR ADDITIONA BUILDING TO A Thur Unit Port Arthur Unit Port Arthur	ter service 5 months in 4 1)(1) and the the Eighth ar L CERTIFIC been comple	examination my 12 month cognisant of ad Ninth Coas ATE INFORM ted at Port Art	interval p period, th ONI notifi t Guard Di	er 46 CFR 31. e vessel must ed in writing strict's Tank	be examined as soon as Barge Street	If this wessed using salt this change sallined
This vessel has been give the properties of the	ranted fresh water more than 6 CFR 31.10-21(a ticipating in to CFR ADDITIONA BUILDING TO A Thur Unit Port Arthur Unit Port Arthur	ter service 5 months in 4 1) (1) and the the Eighth ar AL CERTIFIC been comple certified the w	examination iny 12 month a cognizant of ad Ninth Coas ATE INFORM ted at Port Art asset, in all res	interval p period, th CMI notifi t Guard Di MATION*** hur, TX, UN pects, is in o	er 46 CFR 31.  e vessel must ed in writing strict's Tank  ITED STATES conformity with	be examined as soon as Barge Street	If this vessed using salt this change canlined in Charge, Marine to vessed inspection
This vessel has been gits operated in salt was vater intervals per 46 occurs.  This tank barge is part occurs.  This tank barge is part occurs.  With this Inspection for Censpection, Marine Safety and the rules and recommendations.	ranted fresh water more than 6 CFR 31.10-21 (a ticipating in to OR ADDITIONAl Militation having Unit Port Arthur Militations present Periodic/Re-Insperiodic	ter services months in a position of the Eighth are LL CERTIFIC been complecertified the weed thereunder	examination iny 12 month a cognizant of ad Ninth Coas ATE INFORM ted at Port Art asset, in all res	interval p period, th CMI notifi t Guard Di MATION*** hur, TX, UN pects, is in o	er 46 CFR 31. e vessel must ed in writing strict's Tank IITED STATES conformity with	Barge Stre	If this vessed using salt this change canlined in Charge, Marine to vessel inspection
This vessel has been go is operated in salt was sater intervals per 46 occurs.  This tank barge is part  ***SEE NEXT PAGE FOR With this Inspection for Conspection, Marine Safety awa and the rules and recommendation.  Date Zone	ranted fresh water more than 6 CFR 31.10-21 (a ticipating in to OR ADDITIONAl Militation having Unit Port Arthur Waltons prescrib Periodic/Re-Insperiodic/Re	ter services months in a content of the Eighth are L CERTIFIC been complecertified the weed thereunder cition	examination any 12 month a cognizant of the cognizant of	interval p period, th CMI notifi t Guard Di MATION*** hur, TX, UN pects, is in o	er 46 CFR 31. e vessel must ed in writing strict's Tenk  ITED STATES conformity with	Barge Stre	If this vessed using salt this change canlined in Charge, Marine to vessel inspection
This vessel has been go is operated in salt was water intervals per 46 occurs.  This tank barge is part  ***SEE NEXT PAGE FO  With this Inspection for Conspection, Marine Safety awa and the rules and rec  Annual/P	ranted fresh water more than 6 CFR 31.10-21 (a ticipating in to OR ADDITIONAl ticipating in the OR ADDITIONAL ticipating in th	ter services months in a position of the Eighth are LL CERTIFIC been complecertified the weed thereunder	examination any 12 month a cognizant of ad Ninth Coas ATE INFORM ted at Port Art asset, in all res	interval p period, th CMI notifi t Guard Di MATION*** hur, TX, UN pects, is in o	er 46 CFR 31. e vessel must ed in writing strict's Tenk  ITED STATES conformity with	the Officer the applicab	If this vessed using salt this change canlined in Charge, Marine to vessel inspection



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

Certification Date: 04 Jun 2020 **Expiration Date:** 04 Jun 2025

## Certificate of Inspection

Vessel Name: KIRBY 11011B

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 OCMI Houston-

### ---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

30Apr2030

04Jun2020

13Apr2010

Internal Structure

30Apr2025

04Jun2020

29Apr2015

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

Authorization:

Flammable/Combustible Liquids and Specified Hazardous Cargoes

**Total Capacity** 

Highest Grade Type Part151 Regulated Part153 Regulated Part154 Regulated

11500

Barrels

Α

Yes

No

No

(lbs/gal)

### \*Hazardous Bulk Solids Authority\*

Not Authorized

### \*Loading Constraints - Structural\*

Tank Location Description	Max Cargo Weight per Tank (short tons)	Maximum Density (
1 C/L	615	12.91
2 C/L	590	12.91
3 C/L	533	12.91

### \*Loading Constraints - Stability\*

Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Description
II	1598	9ft 3in	8.74	R, LBS, LC 0-12
II	1543	9ft 0in	9.58	R, LBS, LC 0-12
IL	1489	8ft 9in	9.99	R, LBS, LC 0-12
II	1434	8ft 6in	10.41	R, LBS, LC 0-12
II	1379	8ft 3in	11.03	R, LBS, LC 0-12
IE	1325	8ft 0in	11.45	R, LBS, LC 0-12
Н	1270	7ft 9in	11.87	R, LBS, LC 0-12
П	1216	7ft 6in	12.08	R, LBS, LC 0-12
II	1161	7ft 3in	12.28	R, LBS, LC 0-12
Ш	1107	7ft 0in	12.91	R, LBS, LC 0-12
Ш	1656	9ft 6in	8.74	R, LBS, LC 0-12
III	1543	9ft 0in	9.91	R, LBS, LC 0-12
Ш	1489	8ft 9in	10.66	R, LBS, LC 0-12
Ш	1434	8ft 6in	11.24	R, LBS, LC 0-12
Ш	1379	8ft 3in	11.66	R, LBS, LC 0-12
Ш	1325	8ft 0in	11.87	R, LBS, LC 0-12



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## Certificate of Inspection

Vessel Name: KIRBY 11011B

111	1270	7ft 9in	12.28	R, LBS, LC 0-12
Ш	1216	7ft 6in	12.49	R, LBS, LC 0-12
Ш	1161	7ft 3in	12.70	R, LBS, LC 0-12
III	1107	7ft 0in	12.91	R, LBS, LC 0-12

### \*Conditions Of Carriage\*

Only those cargoes named in the vessel's Cargo Authority Attachment (CAA), serial #C1-1104465, dated 07DEC11, may be carried and then only in the tanks indicated.

Per 46 CFR 150.130, the Person In Charge of the vessel is responsible for ensuring that the compatibility requirements of 46 CFR 150 are met. Cargoes must be checked for compatibility using the 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 CAA.

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 197, Subpart C, are applied.

This vessel is subject to special operating requirements Per 46 CFR, Part 151.45-2(b), operation of box-end or square-end barges as the lead barge of tows.

Per 46 CFR 39, excluding part 39.4000, this vessel's vapor control system (VCS) has been inspected to the plans approved by Marine Safety Center letter, serial #C1-1000846, dated 29MAR10, and found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column.

The maximum design density of cargo which may be filled to the tank top is 9.99 lbs/gal. For Hull Type II and III, cargoes with higher densities, up to 12.91 lbs/gal, may be carried as slack loads, but shall not exceed the tank weight limits as listed above.

Per 46 CFR 151.10-15(c)(2), the maximum tank weights listed below 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.

### --- Inspection Status ---

### \*Cargo Tanks\*

l		Internal Exam			External Exam	Ĺ	
l	Tank Id	Previous	Last	Next	Previous	Last	Next
	1 C/L	13Apr2010	04Jun2020	30Apr2030	29Apr2015	04Jun2020	30Apr2025
	2 C/L	13Apr2010	04Jun2020	30Apr2030	29Apr2015	04Jun2020	30Apr2025
	3 C/L	13Apr2010	04Jun2020	30Apr2030	29Apr2015	04Jun2020	30Apr2025
				Hydro Test			
١	Tank Id	Safety Valves		Previous	Last	Next	
	1 C/L	-		-	13Apr2010		
	2 C/L			-	13Apr2010	-	
	3 C/L	-		=	13Apr2010	-	

### --- Conditional Portable Fire Extinguisher Requirements---

Required Only During Transfer of Cargo or Operation of Barge Machinery

### --- Fire Fighting Equipment ---

<sup>\*</sup>Vapor Control Authorization\*

<sup>\*</sup>Stability and Trim\*



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

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## Certificate of Inspection

Vessel Name: KIRBY 11011B

\*Fire Extinguishers - Hand portable and semi-portable\*

Quantity

Class Type

2

40-B

\*\*\*END\*\*\*



Serial #

C1-1104465

# Certificate of Inspection

### Cargo Authority Attachment

Vessel Name: KIRBY 11011B

Shipyard: Trinity Ashland City

Hull #: 4715

Official #: 1225081

16	CFR	151	Tank	Group	Characteristics

Tank Group Information	Cargo Identification			Cargo		Tanks		Carg Tran		Enviror Control	nmental	Fire	Special Require	ments			
Tnk Grp Tanks in Group	Density	Press.	Temp.		Seg Tank	-	Vent	Gauge	Pipe Class	Cont	Tanks	Handling Space	Protection Provided	General	Materials of Construction	Elec Haz	Temp Cont
A #1, #2, #3	12.91	Atmos.	Amb.	И	1ii 2ii	Integral Gravity	PV	Closed	11	G-1	NR	NA	Portable	.50-60, .50-70(a), .50-70(b), .50-73, .50-81(a), .50-	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.

**List of Authorized Cargoes** 

Cargo Identificatio	n					Conditions of Carriage					
							Vapor R	ecovery	I		
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											
Acetonitrile	ATN	37	0	С	111	Α	Yes	3	No	G	
Acrylonitrile	ACN	15 <sup>2</sup>	0	С	Ш	Α	Yes	4	.50-70(a), .55-1(e)	G	
Adiponitrile	ADN	37	0	E	П	Α	Yes	1	No	G	
Alkyl(C7-C9) nitrates	AKN	34 <sup>2</sup>	0	NA	111	Α	No	N/A	.50-81, .50-86	G	
Aminoethylethanolamine	AEE	8	0	Ε	111	Α	Yes	1	.55-1(b)	G	
Ammonium bisulfite solution (70% or less)	ABX	43 <sup>2</sup>	0	NA	Ш	Α	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	
Anthracene oil (Coal tar fraction)	AHO	33	0	NA	II	Α	No	N/A	No	G	
Benzene	BNZ	32	0	С	III	Α	Yes	1	.50-60	G	
Benzene or hydrocarbon mixtures (having 10% Benzene or more)	внв	32 <sup>2</sup>	0	С	Ш	Α	Yes	1	.50-60	G	
Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more)	ВНА	32 <sup>2</sup>	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	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	Ш	Α	Yes	1	.55-1(h)	G	
Camphor oil (light)	CPO	18	0	D	Н	Α	No	N/A	No	G	
Caustic potash solution	CPS	5 <sup>2</sup>	0	NA	Ш	Α	No	N/A	.50-73, .55-1(j)	G	
Caustic soda solution	css	5 <sup>2</sup>	0	NA	Ш	Α	No	N/A	.50-73, .55-1(j)	G	
Chemical Oil (refined, containing phenolics)	COD	21	0	Е	II	Α	No	N/A	.50-73	G	
Chlorobenzene	CRB	36	0	D	Ш	Α	Yes	1	No	G	
Chloroform	CRF	36	0	NA	Ш	Α	Yes	3	No	G	
Coal tar naphtha solvent	NCT	33	0	D	111	Α	Yes	1	.50-73	G	
Creosote	CCW	21 <sup>2</sup>	0	E	Ш	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		0	E	111	Α	Yes	1	.55-1(f)	G	
Crotonaldehyde	CTA	19 <sup>2</sup>	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	ССН	18	0	D	111	Α	Yes	1	.56-1(a), (b)	G	
Cyclohexanone, Cyclohexanol mixture	CYX	18 <sup>2</sup>	0	E	Ш	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	0	D	Ш	Α	Yes	1	.50-60, .56-1(b)	G	

<sup>2.</sup> 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.

<sup>3.</sup> 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.



ited States Coast Guard Date

# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: KIRBY 11011B

Official #: 1225081

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Shipyard: Trinity Ashland City

Serial #: C1-1104465

07-Dec-11

Cargo Identification	Conditions of Carriage									
	Cham	Compet	Cub		(1).31	Tarely		Recovery	0 110 1 110 0	
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. Period
iso-Decyl acrylate	IAI	14	0	E	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b), .55-1(c)	G
Dichlorobenzene (all isomers)	DBX	36	0	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	П	Α	Yes	1	.55-1(f)	G
Dichloromethane	DCM	36	0	NA	Ш	Α	Yes	5	No	G
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	DDE	43	0	Е	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	111	Α	No	N/A	.56-1(a), (b), (c), (g)	G
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	DTI	43 2	0	Е	Ш	Α	No	N/A	.56-1(a), (b), (c), (g)	G
1,1-Dichloropropane	DPB	36	0	С	Ш	Α	Yes	3	No	G
1,2-Dichloropropane	DPP	36	0	С	Ш	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	11	Α	Yes	4	No	G
Dichloropropene, Dichloropropane mixtures	DMX	15	0	С	П	Α	Yes	1	No	G
Diethanolamine	DEA	8	0	E	111	Α	Yes	1	.55-1(c)	G
Diethylamine	DEN	7	0	C	III	A	Yes	3	.55-1(c)	G
Diethylenetriamine	DET	7 2	0	E	III	Α	Yes	1	.55-1(c)	G
Diisobutylamine	DBU	<u>·</u> 7	0		111	A	Yes	3	.55-1(c)	G
Diisopropanolamine	DIP	 8	0	E	111	A	Yes	1	.55-1(c)	G
Diisopropylamine	DIA	7	0	C		A	Yes	3	.55-1(c)	
N,N-Dimethylacetamide	DAC	10	0	E	111	A	Yes	3	.56-1(b)	G
Dimethylethanolamine	DMB	8	0	D	111		Yes	1	.56-1(b), (c)	
Dimethylformamide	DMF	10	0	D			Yes	<u>'</u>	.55-1(e)	G
Di-n-propylamine	DNA	7	0	C		A	Yes	3	.55-1(c)	
	DOT	7	0	E	<u>''</u>				.56-1(b)	G
Dodecyldimethylamine, Tetradecyldimethylamine mixture	DOS		-0	#		A	No	N/A	No No	
Dodecyl diphenyl ether disulfonate solution	EEG	43	0	# D		A	No	N/A	No	
EE Glycol Ether Mixture		40			111	A	No	N/A	.55-1(c)	
Ethanolamine	MEA	8	0	E	111	Α	Yes	1		
Ethyl acrylate	EAC	14	0	C	- 111	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Ethylamine solution (72% or less)	EAN	7	0	Α	- 11	A	Yes	6	.55-1(b)	G
N-Ethylbutylamine	EBA	7	0	D	III	A	Yes	3	.55-1(b)	G
N-Ethylcyclohexylamine	ECC	7	0	D	Ш	Α	Yes	1	.55-1(b)	G
Ethylene cyanohydrin	ETC	20	0	E	111	Α	Yes	1	No	G
Ethylenediamine	EDA	7 2	0	D	111	Α	Yes	1	.55-1(c)	G
Ethylene dichloride	EDC	36 <sup>2</sup>	0	С	III	Α	Yes	1	No	G 
Ethylene glycol hexyl ether	EGH	40	0	E	Ш	Α	No	N/A	No	G
Ethylene glycol monoalkyl ethers	EGC	40	0	D/E	111	Α	Yes	1	No	G
Ethylene glycol propyl ether	EGP	40	0	E	III	Α	Yes	1	No	G
2-Ethylhexyl acrylate	EAI	14	0	E	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Ethyl methacrylate	ETM	14	0	D/E	111	Α	Yes	2	.50-70(a)	G
2-Ethyl-3-propylacrolein	EPA	19 <sup>2</sup>	0	E	111	Α	Yes	1	No	G
Formaldehyde solution (37% to 50%)	FMS	19 <sup>2</sup>	0	D/E	111	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	НМС	7	0	E	111	Α	Yes	1	.55-1(c)	G
Hexamethyleneimine	HMI	7	0	С	11	Α	Yes	1	.56-1(b), (c)	G
Hydrocarbon 5-9	HFN		0	С	Ш	Α	Yes	1	.50-70(a), .50-81(a), (b)	G
Isoprene	IPR	30	0	Α	111	Α	Yes	7	.50-70(a), .50-81(a), (b)	G
Isoprene, Pentadiene mixture	IPN		0	В	Ш	Α	No	N/A	.50-70(a), .55-1(c)	G



ty Serial #: *C1-1104465* **rd** Dated: *07-Dec-11* 

# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: KIRBY 11011B

Official #: 1225081

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Shipyard: Trinity Ashland City

Cargo Identification	1						-	Condi	tions of Carriage	
							Vapor R	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
Kraft pulping liquors (free alkali content 3% or more)(including: Black, Green, or White liquor)	KPL	5	0	NA	Ш	Α	No	N/A	.50-73, .56-1(a), (c), (g)	G
Mesityl oxide	MSO	18 <sup>2</sup>	0	D	Ш	Α	Yes	1	No	G
Methyl acrylate	MAM	14	0	С	Ш	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	111	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	МММ	14	0	С	Ш	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	Ш	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	II	Α	No	N/A	.50-81, .56-1(b)	G
1- or 2-Nitropropane	NPM	42	0	D	Ш	Α	Yes	1	.50-81	G
1,3-Pentadiene	PDE	30	0	Α	Ш	Α	Yes	7	.50-70(a), .50-81	G
Polyethylene polyamines	PEB	7 2	0	E	III	Α	Yes	1	.55-1(e)	G
iso-Propanolamine	MPA	8	0	E	III	Α	Yes	1	.55-1(c)	G
Propanolamine (iso-, n-)	PAX	8	0	E	Ш	Α	Yes	1	.56-1(b), (c)	G
iso-Propylamine	IPP	7	0	Α	II	Α	Yes	5	.55-1(c)	G
Pyridine	PRD	9	0	С	Ш	Α	Yes	1	.55-1(e)	G
Sodium acetate, Glycol, Water mixture (3% or more Sodium Hydroxid	e) SAP		0		111	Α	No	N/A	.50-73, .55-1(j)	G
Sodium aluminate solution (45% or less)	SAU	5	0	NA	III	Α	No	N/A	.50-73, .56-1(a), (b), (c)	G
Sodium chlorate solution (50% or less)	SDD	0 1,2	0	NA	111	Α	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	0	NA	Ш	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	Ш	Α	No	N/A	.50-73, .55-1(b)	G
Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm)	SSJ	0 1,2	0	NA		Α	No	N/A	.50-73, .55-1(b)	G
Styrene (crude)	STX		0	D	III	Α	Yes	2	No	G
Styrene monomer	STY	30	0	D	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Tetraethylenepentamine	TTP	7	0	E	III	Α	Yes	1	.55-1(c)	G
Tetrahydrofuran	THF	41	0		III	Α	Yes	1	.50-70(b)	G
Toluenediamine	TDA	9	0	E	11	A	No	N/A	.50-73, .56-1(a), (b), (c), (g)	G
1,2,4-Trichlorobenzene	ТСВ	36	0	E	Ш	Α	Yes	1	No	G
1,1,2-Trichloroethane	TCM	36	0	NA	III	Α	Yes	1	.50-73, .56-1(a)	G
Trichloroethylene	TCL	36 <sup>2</sup>	0	NA	III	Α	Yes	1	No	G
1,2,3-Trichloropropane	TCN	36	0	E	11	Α	Yes	3	.50-73, .56-1(a)	G
Triethanolamine	TEA	8 <sup>2</sup>	0	E	III	Α	Yes	1	.55-1(b)	G
Triethylamine	TEN	7	0	С	11	A	Yes	3	.55-1(e)	G
Triethylenetetramine	TET	7 2	0	E	III	Α	Yes	1	.55-1(b)	G
Triphenylborane (10% or less), caustic soda solution	TPB	5	0	NA	Ш	A	No	N/A	.56-1(a), (b), (c)	G
Trisodium phosphate solution	TSP	5	0	NA	III	A	No	N/A	.50-73, .56-1(a), (c).	G
Urea, Ammonium nitrate solution (containing more than 2% NH3)	UAS	6	0	NA	III	Α	No	N/A	.56-1(b)	G
Vanillin black liquor (free alkali content, 3% or more).	VBL	5	0	NA	III	A	No	N/A	.50-73, .56-1(a), (c), (g)	G
Vinyl acetate	VAM	13	0	С	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Vinyl neodecanate	VND	13	0	E	III	A	No	N/A	.50-70(a), .50-81(a), (b)	G
Vinyltoluene	VNT	13	0		III	A	Yes	2	.50-70(a), .50-81, .56-1(a), (b), (c), (	G
Villyhordene	V 1 V 1	, 0	9	_		73	103	~		



# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: KIRBY 11011B

Official #: 1225081

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Shipyard: Trinity Ashland City

Serial #: C1-1104465

07-Dec-11

Cargo Identificatio	n					Conditions of Carriage						
							Vapor I	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		
Subchapter D Cargoes Authorized for Vapor Contr	ol											
Acetone	ACT	18 <sup>2</sup>	D	С		Α	Yes	1				
Acetophenone	ACP	18	D	E		Α	Yes	1				
Alcohol(C12-C16) poly(1-6)ethoxylates	APU	20	D	Е		Α	Yes	1				
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		Α	Yes	1				
Benzyl alcohol	BAL	21	D	E		Α	Yes	1				
Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters)	BFX	20	D	E		Α	Yes	1				
Butyl acetate (all isomers)	BAX	34	D	D		Α	Yes	1				
Butyl alcohol (iso-)	IAL	20 <sup>2</sup>	D	D		Α	Yes	1				
Butyl alcohol (n-)	BAN	20 <sup>2</sup>	D	D		Α	Yes	1				
Butyl alcohol (sec-)	BAS	20 <sup>2</sup>	D	С		Α	Yes	1				
Butyl alcohol (tert-)	BAT		D	С		Α	Yes	1				
Butyl benzyl phthalate	BPH	34	D	E		Α	Yes	1				
Butyl toluene	BUE	32	D	D		Α	Yes	1				
Caprolactam solutions	CLS	22	D	E		Α	Yes	1				
Cyclohexane	CHX	31	D	С		Α	Yes	1				
Cyclohexanol	CHN	20	D	E		Α	Yes	1				
1,3-Cyclopentadiene dimer (molten)	CPD	30	D	D/E		Α	Yes	2				
p-Cymene	CMP	32	D	D		Α	Yes	1				
iso-Decaldehyde	IDA	19	D	Е		Α	Yes	1				
n-Decaldehyde	DAL	19	D	Е		Α	Yes	1				
Decene	DCE	30	D	D		Α	Yes	1				
Decyl alcohol (all isomers)	DAX	20 <sup>2</sup>	D	Е	-	Α	Yes	1				
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	D	E		Α	Yes	1				
Diacetone alcohol	DAA	20 <sup>2</sup>	D	D		Α	Yes	1				
ortho-Dibutyl phthalate	DPA	34	D	E		Α	Yes	1				
Diethylbenzene	DEB	32	D	D		Α	Yes	1				
Diethylene glycol	DEG	40 <sup>2</sup>	D	E		Α	Yes	1	The state of the s			
Diisobutylene	DBL	30	D	С		Α	Yes	1	WALLES THE			
Diisobutyl ketone	DIK	18	D	D		A	Yes	1				
Diisopropylbenzene (all isomers)	DIX	32	D	E		Α	Yes	1	CANADA DA ANDRE SANDA			
Dimethyl phthalate	DTL	34	D	E		Α	Yes	1				
Dioctyl phthalate	DOP	34	D	E		Α	Yes	1				
Dipentene	DPN	30	D	D		Α	Yes	1				
Diphenyl	DIL	32	D	D/E		Α	Yes	1				
Diphenyl, Diphenyl ether mixtures	DDO	33	D	E		Α	Yes	1				
Diphenyl ether	DPE	41	D	{E}		Α	Yes	1				
Dipropylene glycol	DPG	40	D	E		Α	Yes	1				
Distillates: Flashed feed stocks	DFF	33	D	E		Α	Yes	1				
Distillates: Straight run	DSR	33	D	E		Α	Yes	1				
Dodecene (all isomers)	DOZ	30	D	D		Α	Yes	1				
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				
							No. 10/1000					



Dated:

07-Dec-11

# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: KIRBY 11011B

Official #: 1225081

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Shipyard: Trinity Ashland City

Cargo Identification	on					Conditions 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		
Ethyl acetate	ETA	34	D	С		Α	Yes	1				
Ethyl acetoacetate	EAA	34	D	E		Α	Yes	1				
Ethyl alcohol	EAL	20 <sup>2</sup>	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		Α	Yes	1				
Ethyl butyrate	EBR	34	D	D		Α	Yes	1				
Ethyl cyclohexane	ECY	31	D	D		Α	Yes	1				
Ethylene glycol	EGL	20 <sup>2</sup>	D	Ε		Α	Yes	1				
Ethylene glycol butyl ether acetate	EMA	34	D	E		Α	Yes	1				
Ethylene glycol diacetate	EGY	34	D	E		Α	Yes	1				
Ethylene glycol phenyl ether	EPE	40	D	Е		Α	Yes	1				
Ethyl-3-ethoxypropionate	EEP	34	D	D		Α	Yes	1				
2-Ethylhexanol	EHX	20	D	Ε		Α	Yes	1				
Ethyl propionate	EPR	34	D	С		Α	Yes	1				
Ethyl toluene	ETE	32	D	D		Α	Yes	1				
Formamide	FAM	10	D	E		Α	Yes	1				
Furfuryl alcohol	FAL	20 <sup>2</sup>	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	Mich. 4990000 (Mich. Mich. Mich. Mich. Addit. Addit			
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		Α	Yes	1				
Gasolines: Straight run	GSR	33	D	A/C		Α	Yes	1				
Glycerine	GCR	20 <sup>2</sup>	D	E		Α	Yes	1				
Heptane (all isomers), see Alkanes (C6-C9) (all isomers)	HMX	31	D	С		Α	Yes	1				
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	E		Α	Yes	1				
Hexane (all isomers), see Alkanes (C6-C9)	HXS	31 <sup>2</sup>	D	B/C		Α	Yes	1				
Hexanoic acid	нхо	4	D	Е		Α	Yes	1				
Hexanol	HXN	20	D	D		Α	Yes	1				
Hexene (all isomers)	HEX	30	D	С		Α	Yes	2				
Hexylene glycol	HXG	20	D	E		Α	Yes	1				
Isophorone	IPH	18 <sup>2</sup>	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		Α	Yes	1				
Kerosene	KRS	33	D	D		Α	Yes	1				
Methyl acetate	MTT	34	D	D		Α	Yes	1				
Methyl alcohol	MAL	20 <sup>2</sup>	D	С		Α	Yes	1				
Methylamyl acetate	MAC	34	D	D		Α	Yes	1				
Methylamyl alcohol	MAA	20	D	D		Α	Yes	1				
Methyl amyl ketone	MAK	18	D	D		Α	Yes	1				
Methyl tert-butyl ether	MBE	41 <sup>2</sup>	D	С		Α	Yes	1				
Methyl butyl ketone	MBK	18	D	С		Α	Yes	1				

<sup>\*\*\*</sup> This document is only valid when attached to, and referenced by a current, valid Certificate of Inspection. \*\*\*



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# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: KIRBY 11011B

Official #: 1225081

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Shipyard: Trinity Ashland City

Cargo Identification							Conditions of Carriage					
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	Recovery VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp.		
					туре				151 General and Maths Of	Period		
Methyl othyl keters	MBU	34	D	С		A	Yes	1				
Methyl ethyl ketone	MEK	18 <sup>2</sup>	D	C		A .	Yes	1				
Methyl heptyl ketone	MHK	18		D		Α .	Yes	1				
Methyl isobutyl ketone	MIK	18 <sup>2</sup>	D	C		A	Yes	1				
Methyl naphthalene (molten)	MNA	32		E		A	Yes	1				
Mineral spirits	MNS	33	D	D		A	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				
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 <sup>2</sup>	D	E	-	Α	Yes	1				
Nonyl phenol	NNP	21	D	E		Α	Yes	1				
Nonyl phenol poly(4+)ethoxylates	NPE	40	D	E		Α	Yes	1				
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 <sup>2</sup>	D	E		Α	Yes	1				
Octene (all isomers)	OTX	30	D	С		Α	Yes	2				
Oil, fuel: No. 2	OTW	33	D	D/E		Α	Yes	1				
Oil, fuel: No. 2-D	OTD	33	D	D		Α	Yes	1				
Oil, fuel: No. 4	OFR	33	D	D/E		Α	Yes	1				
Oil, fuel: No. 5	OFV	33	D	D/E		Α	Yes	1				
Oil, fuel: No. 6	OSX	33	D	Ε		Α	Yes	1				
Oil, misc: Crude	OIL	33	D	C/D		Α	Yes	1				
Oil, misc: Diesel	ODS	33	D	D/E		Α	Yes	1				
Oil, misc: Gas, high pour	OGP	33	D	Е		Α	Yes	1				
Oil, misc: Lubricating	OLB	33	D	E		Α	Yes	1				
Oil, misc: Residual	ORL	33	D	Е		Α	Yes	1				
Oil, misc: Turbine	ОТВ	33	D	Е		Α	Yes	1				
Pentane (all isomers)	PTY	31	D	Α		Α	Yes	5				
Pentene (all isomers)	PTX	30	D	Α		Α	Yes	5				
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				
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 <sup>2</sup>	D	С		Α	Yes	1				
n-Propyl alcohol	PAL	20 <sup>2</sup>	D	С		Α	Yes	1				
Propylbenzene (all isomers)	PBY	32	D	D		Α	Yes	1				
iso-Propylcyclohexane	IPX	31	D	D		Α	Yes	1				
Propylene glycol	PPG	20 <sup>2</sup>	D	E		Α	Yes	1	CONTRACTOR OF THE STATE OF THE			



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07-Dec-11

# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: KIRBY 11011B

Official #: 1225081

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Shipyard: Trinity Ashland City

Cargo Identification							Conditions 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		
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	Е		Α	Yes	1				
Tetraethylene glycol	TTG	40	D	E		Α	Yes	1	And the state of t			
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	E		Α	Yes	1				
Triethylene glycol	TEG	40	D	E		Α	Yes	1				
Triethyl phosphate	TPS	34	D	Е		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		Α	Yes	1				





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Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 11011B

Official #: 1225081

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Shipyard: Trinity Ashland

07-Dec-11

Hull #: 4715

### 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.

Note 1

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.

Note 2

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

Subchapter Subchapter D 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.

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

Grade

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

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

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

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.

NA Hull Type

NA

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 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 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 Recovery 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 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 ead 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

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 1 cargoes. 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.

none

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