

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

Certification Date: 06 Nov 2023 06 Nov 2028 **Expiration Date:**

Certificate of Inspection

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

Halling Port Hull Material Horsepower Propulsion HOUMA, LA Steel UNITED STATES Place Built Delivery Date Keel Laid Date Gross Tons Net Tons DWT Length R-297.5 UNITED STATES Operator KIRBY INLAND MARINE LP STATES Overator KIRBY INLAND MARINE LP Has So 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. O Masters 0 Licensed Mates 0 First Class Pilots 0 First Assistant Engineers 0 Second Mates 0 Radio Officers 0 Second Assistant Engineers 0 Third Mates 0 Able Seamen 0 Third Assistant Engineers	essel Name	Official Number	IMÓ Numi	ber	Call Sign	Service	
Halling Port Hull Material Horsepower Propulsion HOUMA, LA Steel UNITED STATES Place Built Delivery Date Keel Laid Date Gross Tone Net Tons DWT Length R.297.5 R.1619 R.1619 R.297.5 L L L L L L L L L L L L L L L L L L L						Tank S	Ship
HOUMA, LA Steel UNITED STATES Piace Built MORGAN CITY, LA 23Aug2013 13May2013 R-1619 R-1619 R-297.5 UNITED STATES UNITED STATES Operator KIRBY INLAND MARINE LP 55 WAUGH DR STE 1000 HOUSTON, TX 77007 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. O Masters O Licensed Mates O Chief Engineers O Second Mates O Radio Officers O Second Mates O Third Mates O Third Assistant Engineers O Third Mates O Third Mates O Third Assistant Engineers	(IRBY 29077	1243995		· , · , · , · , · , · , · , · , · , · ,			
HOUMA, LA Steel UNITED STATES Piace Built MORGAN CITY, LA 23Aug2013 13May2013 R-1619 R-1619 R-297.5 UNITED STATES UNITED STATES Operator KIRBY INLAND MARINE LP 55 WAUGH DR STE 1000 HOUSTON, TX 77007 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. O Masters O Licensed Mates O Chief Engineers O Second Mates O Radio Officers O Second Mates O Third Mates O Third Assistant Engineers O Third Mates O Third Mates O Third Assistant Engineers							
UNITED STATES Plece Built Delivery Date Keel Leid Date Gross Tons Not Tons DWT Length R-1619 R-1619 R-1619 R-297.5 R-297.5 L UNITED STATES Operator KIRBY INLAND MARINE LP KIRBY INLAND MARINE LP KIRBY INLAND MARINE LP STATES UNITED STATES This vessel must be manned with the following licensed and unlicensed Personnel. Included in which there must be O Certified Lifeboatmen, O Certified Tankermen, O HSC Type Rating, and O GMDSS Operators. O Masters O Chief Mates O First Class Pilots O Second Mates O Second Mates O Radio Officers O Second Mates O Third Mates O Third Mates O Third Mates O Third Assistant Engineers O Third Mates O Third Mates O Third Assistant Engineers	lailing Port	Hull Mate	erial Horse	power	Propulsion		
UNITED STATES Delivery Date Keel Laid Date Gross Tons Net Tons DWT Length R-297.5 A 23Aug2013 13May2013 R-1619 R-1619 R-297.5 UNITED STATES Delivery Date Keel Laid Date Gross Tons Net Tons DWT Length R-297.5 R-1619 R-1619 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-297.5 R-29	HOUMA, LA						
Place Built MORGAN CITY, LA 23Aug2013 13May2013 R-1619 R-1619 R-297.5 UNITED STATES Coperator KIRBY INLAND MARINE LP 55 WAUGH DR STE 1000 HOUSTON, TX 77007 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. O Masters O Chief Mates O Radio Officers O Second Mates O Able Seamen O Third Mates O Able Seamen O Third Assistant Engineers O Third Mates Times R-1619 R		Steer			4		
MORGAN CITY, LA 23Aug2013 13May2013 Conner KIRBY INLAND MARINE LP 55 WAUGH DR STE 1000 HOUSTON, TX 77007 UNITED STATES 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. O Masters O Chief Mates O Radio Officers O Second Mates O Able Seamen O Third Assistant Engineers O Third Mates O Able Seamen O Third Assistant Engineers	JNITED STATES						
MORGAN CITY, LA 23Aug2013 13May2013 Conner KIRBY INLAND MARINE LP 55 WAUGH DR STE 1000 HOUSTON, TX 77007 UNITED STATES 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. O Masters O Chief Mates O Radio Officers O Second Mates O Able Seamen O Third Assistant Engineers O Third Mates O Able Seamen O Third Assistant Engineers					. 1		
MORGAN CITY, LA 23Aug2013 13May2013 R-1619 R-1619 R-1619 R-1619 R-297.5 IO Operator KIRBY INLAND MARINE LP 55 WAUGH DR STE 1000 HOUSTON, TX 77007 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. O Masters O Chief Mates O First Class Pilots O Third Mates O Able Seamen O Third Massistant Engineers O Third Massistant Engineers O Third Mates O Able Seamen O Third Assistant Engineers	Pace Built	Delivery Date	e Keel Laid Date	Gross Tons	Net Tons	DWT	Length
UNITED STATES Operator KIRBY INLAND MARINE LP 55 WAUGH DR STE 1000 HOUSTON, TX 77007 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. O Masters O Chief Mates O First Class Pilots O First Assistant Engineers O Third Mates O Able Seamen O Third Assistant Engineers	MORGAN CITY, LA			R-1619	R-1619		R-297.5
Coperator 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 Compared to the compared very state of the compared v		23Aug2	013 13May2013	۴	5 F		ю
KIRBY INLAND MARINE LP STOWAUGH DR STE 1000 HOUSTON, TX 77007 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. O Masters O Licensed Mates O Chief Engineers O Chief Mates O First Class Pilots O First Assistant Engineers O Third Mates O Able Seamen O Third Assistant Engineers	UNITED STATES				No.		
KIRBY INLAND MARINE LP 55 WAUGH DR STE 1000 HOUSTON, TX 77007 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. O Masters O Licensed Mates O Chief Engineers O Chief Mates O Radio Officers O Second Mates O Able Seamen O Third Assistant Engineers	V 12						
0 Masters 0 Licensed Mates 0 Chief Engineers 0 Oilers 0 Chief Mates 0 First Class Pilots 0 First Assistant Engineers 0 Second Mates 0 Radio Officers 0 Second Assistant Engineers 0 Third Mates 0 Able Seamen 0 Third Assistant Engineers	HOUSTON, TX 77007 UNITED STATES This vessel must be manner	ed with the following licer	CHA UNIT	NNELVIEW, ED STATES	TX 77530	which there m	ust be
0 Chief Mates 0 First Class Pilots 0 First Assistant Engineers 0 Second Mates 0 Radio Officers 0 Second Assistant Engineers 0 Third Mates 0 Able Seamen 0 Third Assistant Engineers							
0 Second Mates 0 Radio Officers 0 Second Assistant Engineers 0 Third Mates 0 Able Seamen 0 Third Assistant Engineers							
0 Third Mates 0 Able Seamen 0 Third Assistant Engineers							
[HENNING NO. 1.1.1] 바이에 바이에 다른 사람들은 다른 사람들은 다른 사람들은 다른 사람들이 되었다.				of the second			
THE CONTRACT OF COMMENT OF COMMENTS AND COMMENTS OF CO			19 (a) 10 (b) 15 (c) 15 (c) 15				
0 Mate First Class Pilots 0 Deckhands 0 Qualified Member Engineer	U Masica Lital Ciass Linci	The state of the s					
In addition, this vessel may carry 0 Passengers, 0 Other Persons in crew, 0 Persons in addition to crew, and no Others. To Persons allowed: 0	0 Mate First Class Pilots						A Others Tota

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

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 Eighth and Ninth Coast Guard District's Tank Barge Streamlined

SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION

With this Inspection for Certification having been completed at Port Arthur, TX, UNITED STATES, the Inspection, Marine Safety Unit Port Arthur certified the vessel, in all respects, is in conformity with the laws and the rules and regulations prescribed thereunder. This certificate issued by

Date	Annual/Periodi Zone	A/P/R	-	nature
11-19-24	Port Arthur TX	3.5	Dillon	Berry
		5.7	tv-	eV.
				1.0 p

L. L. WOODMAN, CDR.

Officer in Charge, Marine Inspection

Marine Safety Unit Port

Inspection Zone



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

Certification Date: 06 Nov 2023 **Expiration Date:** 06 Nov 2028

Certificate of Inspection

Vessel Name: KIRBY 29077

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

---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

30Nov2033

06Nov2023

23Aug2013

Internal Structure

30Nov2028

06Nov2023

17Aug2018

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

Authorization:

Flammable/Combustible Liquids and Specified Hazardous Cargoes

Total Capacity

Units

Highest Grade Type Part151 Regulated Part153 Regulated Part154 Regulated

29254

Barrels

Yes

No

Nο

Hazardous Bulk Solids Authority

Not Authorized

Loading Constraints - Structural

Tank Number	Max Cargo Weight per Tank (short tons)	Maximum Density (lbs/gal)
1 P/S	819	12.5
2 P/S	816	12.5
3 P/S	686	12.5

Loading Constraints - Stability

Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Description
II	3763	9ft 7in	12.5	
111	4422	11ft Oin	12.5	

Conditions Of Carriage

Only those cargoes named in the barge's Cargo Authority Attachment (CAA), Serial No. C1-1300820, dated March 29, 2013, may be carried, and then only in the tanks indicated.

Per 46 CFR 150.130, the person in charge of the barge 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 Number" column listed in the barge's CAA.

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

Per 46 CFR 39, excluding part 39.4000, this vessel's vapor collection system (VCS) has been inspected to the plans approved by Marine Safety Center Letter, Serial No. C1-1204161, dated September 25, 2012, and has been found acceptable for the collection of bulk liquid vapors annotated with "Yes" in the CAA's VCS column.

As per 46 CFR 39.1017 and 39.5000(e), this vessel's VCS has been evaluated and approved for multi-breasted tandem loading with other vessels specifically approved to tandem load with this vessel.

Per Marine Safety Center plan review information sheet (PRIS), Serial No. C1-1300597, dated March 1, 2013, the cargo tank maximum design working pressure: 3.00 psig.

^{*}Vapor Control Authorization*



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

Certification Date: 06 Nov 2023 Expiration Date: 06 Nov 2028

Certificate of Inspection

Vessel Name: KIRBY 29077

The maximum design density of cargoes which may be filled to the tank top is 8.74 lbs/gal. Cargoes with higher densities, upt to 12.5 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 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.

--- Inspection Status ---

Cargo Tanks

	Internal Exan	n		External Ex	am	
Tank Id	Previous	Last	Next	Previous	Last	Next
1 P/S	23Aug2013	06Nov2023	30Nov2033	-	-	-
2 P/S	23Aug2013	06Nov2023	30Nov2033	*	**	•
3 P/S	23Aug2013	06Nov2023	30Nov2033	-	-	-
			Hydro Test			
Tank Id	Safety Valve	s	Previous	Last	Next	
1 P/S	-		**	-	**	
2 P/S	***		-	-	-	
3 P/S	-		-	_	-	

---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

^{*}Stability and Trim*



Serial #: C1-1300820

29-Mar-13

Certificate of Inspection

Cargo Authority Attachment

Official #: 1243995

Shipyard: CONRAD SHIPYARD

Hull#: C-1022

Tank Group Information	Cargo k	dentificati	ion	1	Cargo		Tanks		Carg Tran		Enviror Control		Fire	Special Requirements ire			***************************************
Tnk Grp Tanks in Group	Density	Press.	Temp.	Hull Typ	Seq	Туре	Vent	Gauge	Pipe Class	Cont	Tanks	Handling Space	Protection Provided	General	Materials of Construction	Elec Haz	Tem Cont
A #1P/S, #2P/S, #3P/S	12.5	Atmos.	Amb.	II	1ñ 2ñ	Integral Gravity	PV	Closed	î	G-1	NR	NA	Portable		55-1(b), (c), (e), (f), (h), (j), 56-1(a), (b), (d), (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							Condi	tions of Carriage	
			:			:	Vapor Re	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
Authorized Subchapter O Cargoes										
Acetonitrile	ATN	37	0	С	111	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	0	NA	111	Α	No	N/A	.50-81, .50-86	G
Aminoethylethanolamine	AEE	8	0	E	III	Α	No	N/A	.55-1(b)	G
Anthracene oil (Coal tar fraction)	AHO	33	0	NA	11	Α	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	H	Α	Yes	1	.50-60	G
Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more)	ВНА	32 ²	0	C	H	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	111	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	C	111	Α	Yes	1	.55-1(h)	G
Camphor oil (light)	CPC	18	0	D	II	Α	No	N/A	No	G
Chemical Oil (refined, containing phenolics)	COE	21	0	E	II	Α	No	N/A	.50-73	G
Chlorobenzene	CRB	36	0	D	Ш	Α	No	N/A	No	G
Chloroform	CRF	36	0	NA	111	Α	No	N/A	No	G
Coal tar naphtha solvent	NCT	33	0	D	111	Α	Yes	1	50-73	G
Creosote	CCV	/ 212	0	E	111	Α	No	N/A	No	G
Cresols (all isomers)	CRS	21	0	E	III	Α	No	N/A	No	G
Cresylate spent caustic	CSC	5	0	NA	III	Α	No	N/A	.50-73, .55-1(b)	G
Cresylic acid tar	CRX		0	E	Ш	Α	No	N/A	.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	No	N/A	No	G
Cyclohexanone	CCH	l 18	0	D	- 111	Α	Yes	1	.56-1(a), (b)	G
Cyclohexanone, Cyclohexanol mixture	CYX	18 ²	0	Ė	111	Α	Yes	1	.56-1 (b)	G
Cyclopentadiene, Styrene, Benzene mixture	CSB	30	0	D	111	Α	Yes	1	.50-60, .56-1(b)	G
iso-Decyl acrylate	IAI	14	0	E	III	Α	Yes	2	.50-70(a), .50-81(a), (b), .55-1(c)	G
Dichlorobenzene (all isomers)	DBX	36	0	E	. 111	Α	No	N/A	.56-1(a), (b)	G
1,1-Dichloroethane	DCH	36	0	С	Ш	Α	No	N/A	No	G
2,2'-Dichloroethyl ether	DEE	41	0	· D	H	Α	No	N/A	.55-1(f)	G
Dichloromethane	DCN	1 36	O	NA		Α	No	N/A	No No	G



Serial #: C1-1300820

29-Mar-13

Certificate of Inspection

Cargo Authority Attachment

Official #: 1243995

Shipyard: CONRAD SHIPYARD

Hull #: C-1022

Page 2 of 7

Cargo Identifica	tion						(Condi	tions of Carriage	And the same of th
		·····	***************************************				Vapor F	Recovery		
Name 1,1-Dichloropropane	Chem Code DPB	Compat Group No 36	Sub Chapter O	Grade C	Hull Type III	Tank Group A	App'd (Y or N) No	VCS Category N/A		Insp. Period G
1,2-Dichloropropane	DPP	36	0	С	III	Α	No	N/A		G
1,3-Dichloropropane	DPC	36	0	C	III	A	No	N/A		G
1,3-Dichloropropene	DPU	15	0	D		A	No	N/A		G
Dichloropropene, Dichloropropane mixtures	DMX	15	·····	C		Α	No	N/A		G
Diethanolamine	DEA	8	0	E		A	No	N/A		G
Diethylamine	DEN	7	0	c	, 	A	Yes	3	.55-1(c)	G
Diethylenetriamine	DET	72	0	Ē		Α	Yes	1	.55+1(c)	G
Diisobutylamine	DBU	7	0	D	111	A	Yes	3	.55-1(c)	G
Diisopropanolamine	DIP		······	<u></u>			Yes	<u>J</u>	.55-1(c)	G
Diisopropylamine	DIA	7	0	c	11	A	Yes	3	.55-1(c)	G
N,N-Dimethylacetamide	DAC	10	0	E	111	A	Yes	3	.56-1(b)	G
Dimethylformamide	DMF	10	o	D	111	Ā	Yes	1	.55-1(e)	G
-	DNA	7	0	C	11	Ā	Yes	3	.55-1(c)	G
Di-n-propylamine Dodecyldimethylamine, Tetradecyldimethylamine mixture	DOT	7	-		111	<u>^</u>	No	N/A		- G
	DOS	43	- 0	#	111	<u>^</u> -	No	N/A		G
Dodecyl diphenyl ether disulfonate solution	EEG	40	- 0				No	N/A		G
EE Glycol Ether Mixture	MEA	8	0	E	111	^	No	N/A		G
Ethanolamine Ethanolamine	EAC	14	0	c	<u></u>	^_	Yes	2	.50-70(a), .50-81(a), (b)	G
Ethyl acrylate	EAN	7			!! }	***************************************	No	N/A		G
Ethylamine solution (72% or less)						A			.55-1(b)	G
N-Ethylbutylamine	EBA	7		<u> </u>	(11	A	Yes	3	.55-1(b)	- G
N-Ethylcyclohexylamine	ECC		0	D		A	Yes			
Ethylene cyanohydrin	ETC	20	0	E	111	A	No	N/A	·	G
Ethylenediamine	EDA	72		D		A	Yes	1	.55-1(c) No	G
Ethylene dichloride	EDC	36 ²		C		A	No	N/A	·	G
Ethylene glycol hexyl ether	EGH	40	0	E		Α	No	N/A		G
Ethylene glycol monoalkyl ethers	EGC	40	0	D/E		Α.	Yes	1	No	G
Ethylene glycol propyl ether	EGP	40	0	E	111	<u>A</u>	Yes		No	G
2-Ethylhexyl acrylate	EAI	14	0	E	111	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Ethyl methacrylate	ETM	14	0	D/E		A	Yes	2	.50-70(a)	6
2-Ethyl-3-propylacrolein	EPA	19 ²	0	E	111	Α	Yes	1	No	G
Formaldehyde solution (37% to 50%)	FMS	19 ²	0	D/E		A	No	N/A	******	6
Furfural	FFA	19	0	D	111	Α	No	N/A		G·
Glutaraldehyde solution (50% or less)	GTA	19	0	NA	- 111	Α	No	N/A	·	G
Hexamethylenediamine solution	HMC	7	0	<u>E</u>	111	<u>A</u>	Yes	1	.55-1(c)	G
Hydrocarbon 5-9	HFN		0	C		Α	Yes	1	.50-70(a), .50-81(a), (b)	G
Isoprene	IPR	30	0	Α		Α	No	N/A	······································	G
Isoprene, Pentadiene mixture	IPN		0	В	111	Α	No	N/A		G
Mesityl oxide	MSO		0	D	111	A	Yes	11	No	G
Methyl acrylate	MAM		0	C		Α	Yes		.50-70(a), .50-81(a), (b)	G
Methylcyclopentadiene dimer	MCK		0	С		A	Yes		No	G
2-Methyl-5-ethylpyridine	MEP	9	0	E	- 111	Α	Yes	1	.55-1(e)	G
Methyl methacrylate	MMN		0	С	1(1	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
2-Methylpyridine	MPR	9	0	D	111	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	72	0	D	111	Α	Yes	1	.55-1(c)	G
Nitroethane	NTE	42	0	D	ll l	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



C1-1300820 Dated:

29-Mar-13

Certificate of Inspection

Cargo Authority Attachment

Official #: 1243995

Shipyard: CONRAD SHIPYARD

Page 3 of 7

Hull #: C-1022

Cargo Identification	•					<u> </u>			tions of Carriage	
	Chem	Compat	Sub		Hull	Tank	App'd	VCS	Special Requirements in 46 CFR	lnsp.
Name 1,3-Pentadiene	Code	Group No 30	Chapter O	Grade i	Type I	Group A	(Y or N) No	Category N/A	151 General and Mat's of .50-70(a) .50-81	Pend
Polyethylene polyamines	PEB	7 ²	o	E	111	A	No	N/A	.55-1(e)	G
so-Propanolamine	MPA	8	0	E	181	Α	Yes	1	.55-1(a)	G
so-Propylamine	IPP	7	0	A	<u></u>	Α	Yes		.55-1(c)	G
Pyridine	PRD	9	0	Ċ	<u>::</u> 	Α	Yes		.55-1(e)	G
Sodium chlorate solution (50% or less)	SDD	0 1,2	0	NA	111	A	No		.50-73	G
Sodium hypochlorite solution (20% or less)	SHQ	5	<u> </u>	NA.	 	A	No	N/A	.50-73, .56-1(a), (b)	G
Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less)	SSH	0 1,2		NA.	<u>'''</u> 	A	No	N/A	.50-73, .55-1(b)	G
Sodium sulfide, hydrosulfide solution (H2S greater than 15 ppm but less than 200 ppm)	SSI	0 1.2	o	NA	111	A	No	N/A	.50-73, .55-1(b)	G
Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm)	SSJ	0 1,2	0	NA	II	Α	No	N/A	.50-73, .55-1(b)	G
Styrene (crude)	STX		0	D	<u>''</u>	Α	Yes		No	G
Styrene monomer	STY	30	ō	D	111	A	Yes		.50-70(a), .50-81(a), (b)	G
Tetraethylenepentamine	TTP	7	0	E		Α	Yes		.55-1(c)	G
Tetrahydrofuran	THF	41	0	C	111	Α	Yes		.50-70(b)	G
o-Toluidine	TLI	9	0	E	<u></u> 	Α	Yes		.50-5, .50-73	G
1,2,4-Trichlorobenzene	TCB	36	0	E		A	No	 N/A		G
1,1,2-Trichloroberizerie	TCM	36	0	NA		A	No	N/A	·	G
Trichloroethylene	TCL	36 ²	0					N/A		G
1,2,3-Trichloropropane	TCN	36	0	NA E		A	No	N/A	·	G
Triethanolamine	TEA	82		E			No		.55-1(b)	G
						A	Yes		.55-1(e)	6
Triethylamine	TEN	7	0	C		A	Yes		.55-1(b)	G
Triethylenetetramine	TET	7 ²	0	E	111	Α.	Yes			
Urea, Ammonium nitrate solution (containing more than 2% NH3)	UAS	6	0	NA .	- 111	Α .	No	N/A		G
Vinyl acetate	VAM		0	C		A	Yes		.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)	
Subchapter D Cargoes Authorized for Vapor Contro	ol									
Acetone	ACT	18 ²	D	С		Α	Yes	1		
Acetophenone	ACP	18	D	Ė		Α	Yes	1		
Alcohol(C12-C16) poly(1-6)ethoxylates	APU	20	D	Ε		Α	Yes	1		
Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates	AEB	20	a	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	Ė		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 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		Α	Yes	1		
Butyl alcohol (tert-)	BAT		D	С		Α	Yes	1	,,	
Butyl benzyl phthalate	ВРН	34	D	E		Α	Yes	1		
Butyl toluene	BUE	32	D	D		Α	Yes	1		
Caprolactam solutions	CLS	22	D	 E		Α	Yes	<u>`</u>		
Cyclohexane	CHX	31	D	Ç		A	Yes	1		
Cyclohexanol	CHN	20	D	E		A	Yes	1		
	_ / 4			_				•		



Serial #: C1-1300820

29-Mar-13

Certificate of Inspection

Cargo Authority Attachment

Official #: 1243995

Shipyard: CONRAD **SHIPYARD**

Hull #: C-1022

Page 4 of 7

Cargo Identification)n							Condi	tions of Carriage	
								Recovery		
p-Cymene Name	Chem Code CMP	Compat Group No 32	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
iso-Decaldehyde	IDA	19	D	E		Α	Yes	1		
n-Decaldehyde	DAL	19	D	E		Α	Yes	1		
Decene	DCE	30	D	D	***********	Α	Yes	1		
Decyl alcohol (all isomers)	DAX	20 ²		E		Α	Yes	<u>·</u>		
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	D	E		Α	Yes	1		
Diacetone alcohol	DAA	20 ²	D	D		A	Yes	1		
ortho-Dibutyl phthalate	DPA	34	D	E		Α	Yes	1		
Diethylbenzene	DEB	32	D	D		A	Yes	1		
Diethylene glycol	DEG	40 ²	D	 E	***************************************	Α	Yes	<u>`</u>		
Disobutylene	DBL	30	D	C		A	Yes	<u>'</u>		
Disobutyl ketone	DIK	18	ם	D G		A	Yes	<u>·</u>		
·	DIX	32	D	E		A	Yes	1		
Disopropylbenzene (all isomers)	DTL	34	D	E						
Dimethyl phthalate	DOP	34	D	E		A	Yes Yes	1		
Dioctyl phthalate		30	D	D	*******	A		***************************************		
Dipentene	DPN_		~~~~~~~		······	A	Yes	1		
Diphenyl	DIL	32	D	D/E		A	Yes	1		
Diphenyl, Diphenyl ether mixtures	DDO	33	D	E		<u> </u>	Yes	1		
Diphenyl ether	DPE	41	<u>D</u>	(E)		<u> </u>	Yes	1		
Dipropylene glycol	DPG	40	D	<u>E</u>		A	Yes	1		
Distillates: Flashed feed stocks	DFF	33	D	E		Α .	Yes	11		
Distillates: Straight run	DSR	33	D	E		A	Yes	1		~
Dodecene (all isomers)	DOZ	30	D	D		Α	Yes	1		
Dodecylbenzene, see Alkyl(C9+)benzenes	DDB	32	D	E		A	Yes	1		
2-Ethoxyethyl acetate	EEA	34	D	D		A	Yes	1		
Ethoxy triglycol (crude)	ETG	40	D	E		Α	Yes	1		
Ethyl acetate	ETA	34	D	С		Α	Yes	1		
Ethyl acetoacetate	EAA	34	D	Ε		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	C		Α	Yes	1		
Ethyl butyrate	EBR	34	D	D		Α	Yes	1		
Ethyl cyclohexane	ECY	31	ם	Ð		Α	Yes	1		
Ethylene glycol	EGL	20 ²	D	Ε		Α	Yes	1		
Ethylene glycol butyl ether acetate	EMA	34	D	E		Α	Yes	1		
Ethylene glycol diacetate	EGY	34	D	Ε	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Α	Yes	1		
Ethylene glycol phenyl ether	EPE	40	D	E		A	Yes	1		
Ethyl-3-ethoxypropionate	EEP	34	D	D		Α	Yes	1		
2-Ethylhexanol	EHX	20	Ď	E		Α	Yes	1		
Ethyl propionate	EPR	34	D	С		Α	Yes	1		
Ethyl toluene	ETE	32	D	D		A	Yes	1	PP-W-100-100-10-10-10-10-10-10-10-10-10-10-1	
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	·	A	Yes	1		
Gasoline blending stocks: Reformates	GRF	33	D	A/C		A	Yes	1		
Gasolines: Automotive (containing not over 4.23 grams lead per	GAT	33		C	***************************************	A	Yes	1		
gallon)	Uni	UU.	,	~		^	163	•		



Serial #: C1-1300820 Dated:

29-Mar-13

Certificate of Inspection

Cargo Authority Attachment

Official #: 1243995

Shipyard: CONRAD SHIPYARD

Hull #: C-1022

Page 5 of 7

Cargo Identification	on	**************************************				;	····	Condi	itions of Carriage	
			:	:				Recovery	<u> </u>	\top
Name Gasolines: Aviation (containing not over 4.86 grams of lead per gallon)	Chem Code GAV	Compat Group No 33	Sub Chapter D	Grade C	Huil Type	Tank Groun A	App'd	VCS	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period
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)	НМХ	31	D	С		A	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 ²	D	B/C		Α	Yes	1	·····	
Hexanoic acid	нхо	4	D	E		Α	Yes	1		
Hexanol	HXN	20	D	D		A	Yes	<u>-</u>	ARAMA A A A A A A A A A A A A A A A A A	
Hexene (all isomers)	HEX	30	D	C		Α	Yes	2		w
Hexylene glycol	HXG	20	D	E		Α	Yes	<u>-</u>		
Isophorone	IPH	18 ²	D	E		Α	Yes	1		
Jet fuel: JP-4	JPF	33		Ē		A	Yes	<u>'</u>	······································	
Jet fuel: JP-5 (kerosene, heavy)	JPV	33	D	D		<u>^</u>	Yes	1		
Kerosene	KRS	33	D	Ď	~~~~~	A	Yes	1		
Methyl acetate	MTT	34	D	D		Α		<u>-</u>	^	
Methyl alcohol	MAL	20 ²	D	C			Yes			
		~~~	·	***************************************		A	Yes	1		
Methylamyl acetate	MAC	34	D	D		A	Yes	1		
Methylamyl alcohol	MAA	20	D	D		Α .	Yes	1		
Methyl amyl ketone	MAK	18	D	D	~~~~~~	A	Yes	1		
Methyl tert-butyl ether	MBE	41 2	D	C		Α	Yes	1	······································	
Methyl butyl ketone	MBK	18	D	С		Α	Yes	1		
Methyl butyrate	MBU	34	D	C		Α	Yes	1		
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	Ď	C		Α	Yes	1	······································	***************************************
Methyl naphthalene (molten)	MNA	32	D	E		Α	Yes	1		
Mineral spirits	MNS	33	D	Ď		Α	Yes	1		
Myrcene	MRE	30	D	D		Α	Yes	1		
Naphtha: Heavy	NAG	33	Ď	#		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		Α	Yes	2	~~~~	~~~~~
Nonyl alcohol (all isomers)	NNS	20 ²	D	E		Α	Yes	1	******	
Nonyl phenol	NNP	21	D	E	······································	Α	Yes	1		
Nonyl phenol poly(4+)ethoxylates	NPE	40	D	E		A	Yes	1		
Octane (all isomers), see Alkanes (C6-C9)	OAX	31	D	c		Α	Yes	1		
Octanoic acid (all isomers)	OAY	4	D	E		A	Yes	<u>-</u>		
Octanol (all isomers)	OCX	20 ²		E		<u>^</u>	Yes	<u>'</u> _		
Octene (all isomers)	OTX	30	D	C			Yes	2		
occino (all location)	JIX	JU	<i>J</i>			_ ^	res	<del></del>		



Serial #: C1-1300820 Dated:

29-Mar-13

## Certificate of Inspection

## Cargo Authority Attachment

Official #: 1243995

Shipyard: CONRAD **SHIPYARD** 

Hull #: C-1022

Page 6 of 7

Cargo Identification	n							Condi	tions of Carriage	
								Recovery		-
Name	Chem	Compat Group No	Sub Chapter	Grade	Huil Type	Tank Group	App'd (Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period
Oil, fuel: No. 2	OTW	33	D	D/E	.,,,,	Α	Yes	1		1 01100
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	E		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	E		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	E	********	Α	Yes	1		
Pentene (all isomers)	PTX	30	D	Α		Α	Yes	5		
n-Pentyl propionate	PPE	34	D	Ð		Α	Yes	1		
alpha-Pinene	PIO	30	D	D		Α	Yes	1		
beta-Pinene	PIP	30	D	D		A	Yes	1		***************************************
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	PAG	40	D	E		À	Yes	1		***
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate	PAF	34	D	Ę		A	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	Ç		A	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		
Propylbenzene (all isomers)	PBY	32	D	D		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		A	Yes	1		
Propylene tetramer	PTT	30	D	D		Α	Yes	1		
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		
Tricresyl phosphate (less than 1% of the ortho isomer)	TCP	34	D	E	***************************************	A	Yes	1		
Triethylbenzene	TEB	32	D	E		A	Yes	1		
Triethylene glycol	TEG	40	D	E		Α	Yes	<u>`</u>		
Triethyl phosphate	TPS	34	 D	Ē	····	A	Yes	<u>`</u>		
Trimethylbenzene (all isomers)	TRE	32		 {D}		Α	Yes	1	· · · · · · · · · · · · · · · · · · ·	
Trixylenyl phosphate	TRP	34	D	E		A	Yes	<u>`</u>		
Undecene	UDC	30		D/E		A	Yes	1		
1-Undecyl alcohol	UND	20	D	E		Α	Yes	<u>·</u>	· · · · · · · · · · · · · · · · · · ·	
1 Gradoyr atomot	XLX	32	D	D			Yes	<u>`</u>		



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

Serial #:

C1-1300820

Dated: 29-Mar-13

# Certificate of Inspection

Cargo Authority Attachment

Official #: 1243995

Page 7 of 7

Shipyard: CONRAD SHI

Hull #: C-1022

#### 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-

Note 2

0001. Telephone (202) 372-1425. See Appendix I to 46 CFR Part 150 - exceptions to the compatability chart.

Subchanter Subchapter D Subchapter O Note 3

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 Note 4

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

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

Tank Group 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 Title 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,

Category 3

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 (Highly toxic) VCSs for these toxic cargoes cannot use a soill valve or ruoture 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

(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