

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

Certification Date: Expiration Date: 23 Jan 2023 23 Jan 2028

Certificate of Inspection

		12405		MO Nambu		Call Sign	Service Tank Ba	irge
HOUMA, LA			ul Material Steel	Horsepo				
MORGAN CITY, UNITED STATES			PART NO	r Laid Date Apr2012	Grace Torus R-1019 -	Net Tors R-1616	DWT	Longs R-207.5 10
Denier KIRBY INLAND M 55 WAUGH DR S HOUSTON, TX 77 UNITED STATES This vessel must be	TE 1000 007	the following	Nonge des	18350 CHAN UNITE	D STATE	SŤ 7, TX 77530 S		
O Certified Lifeboat O Masters O Chief Mates O Second Mates O Third Mates O Master First Class O Mate First Class P addition, this vess	0 Lice 0 Firs 0 Rate 0 Abl Pilot 0 Ord lots 0 Dec	ensed Mates t Class Pilots lio Officers a Seamen inary Seamen khands	0 Chief Engli 0 First Assis 0 Second As 0 Third Assis 0 Licensed E 0 Qualified A	neers tant Engineers sistant Engineers Engineers Vember Engine	O O	ilers		
ersons allowed: 0 Route Permitted aLakes, Bays	, and Sou	nds plus L	twelve (12) miles fr	om shore	l per 46 CFR	31.10-21 (a	(2). If this
is vessel has bessel is operated it water intervange in status to tank barge in the second status to tank barge in the second se	d in salt wants per 46 cocurs. participat	FR 31.10-21(ing in the E DITIONAL CE	a)(1) and t Lighth Coast ERTIFICATI	he cogniza Guard Dia EINFORM	nt OCHI	notified in w	riting as	Inspection Progra



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

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Vessel Name: KIRRY 30033

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

---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

31Jan2033

23Jan2023

15Sep2017

Internal Structure

31Aug2027

23Jan2023

25Aug2017

--- 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

29890

Barrels

A

Yes

No

No

Hazardous Bulk Solids Authority

Not Authorized

Loading Constraints - Structural

Tank Location Description	Max Cargo Weight per Tank (short tons)	Maximum Density (lbs/gal)
1 P/S	816	15.00
2 P/S	813	15.00
3 P/S	681	15.00

Loading Constraints - Stability

Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Description
Ш	3692	9ft 6in	15	
III	4401	11ft Oin	15	

Conditions Of Carriage

Only those specified hazardous cargoes named in the vessel's Cargo Authority Attachment (CAA), serial ##C1-1201224, dated 06 Mar 2012, may be carried. The specified hazardous cargoes may be carried only in the tanks indicated.

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 number from the "Compat Group No" column is listed in the vessel's CAA.

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

Vapor Control Authorization

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 # C2-0902035, dated 14 Jul 2009, and extended by Marine Safety Center letter serial # C1-1001251 dated 06 Mar 2012, and has been found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column.

Tandem Loading

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.



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Stability and Trim

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 maximum design density of cargo which may be filled to the tank top is 6.34 lbs/gal. Cargoes with higher densities, up to 15.00 lbs/gal, may be carried as slack loads, but shall not exceed the tank weight limits as listed above.

--- Inspection Status ---

Cargo Tanks

	Internal Exam	Ì		External Exar	n	
Tank Id	Previous	Last	Next	Previous	Last	Next
1 P/S	14Sep2012	23Jan2023	30Sep2032	-	-	
2 P/S	14Sep2012	23Jan2023	30Sep2032	-	-	
3 P/S	14Sep2012	23Jan2023	30Sep2032	-	-	-
			Hydro Test			
Tank Id	Safety Valves	3	Previous	Last	Next	
1 P/S		-		14Sep2012	-	
2 P/S	-		-	14Sep2012	-	
3 P/S	-		-	14Sep2012	i=	

--- 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

40-B

END



Certificate of Inspection

Cargo Authority Attachment

Official #: 1240503

Shipyard: Conrad

Serial #:

Dated:

C1-1201224

06-Mar-12

Hull #: C-985

Tank Group Information	Cargo I	dentificati	on		Cargo		Tanks				Environmental Control		Fire	Special Requirements			
Tnk Grp Tanks in Group	Density	Press.	Temp.	Hull Typ	Seg Tank	Туре	Vent	Gauge	Pipe Class	Cont	Tanks	Handling Space	Protection Provided	General	Materials of Construction	Elec Haz	Temp
1P/S, 2P/S, 3P/S	15	Atmos.	Amb.	H	1ii 2ii	Integral Gravity	PV	Closed	П	G-1	Vent N	NA	Portable			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	Conditions 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	Ш	Α	Yes	3	No	G
Adiponitrile	ADN	37	0	E	II	Α	Yes	1	No	G
Alkyl(C7-C9) nitrates	AKN	34 2	0	NA	Ш	Α	No	N/A	.50-81, .50-86	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	Ш	Α	Yes	1	.50-60	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	11	Α	No	N/A	No	G
Carbon tetrachloride	CBT	36	0	NA	111	Α	No	N/A	No	G
Chemical Oil (refined, containing phenolics)	COD	21	0	E	Ĥ	Α	No	N/A	.50-73	G
Chlorobenzene	CRB	36	0	D	111	Α	Yes	1	No	G
Chloroform	CRF	36	0	NA	Ш	Α	Yes	3	No	G
Coal tar naphtha solvent	NCT	33	0	D	III	Α	Yes	1	.50-73	G
Creosote	CCM	/ 21 2	0	E	111	Α	Yes	1	No	G
Cresols (all isomers)	CRS	21	0	Е	111	Α	Yes	1	No	G
Crotonaldehyde	СТА	19 ²	0	С	II	Α	Yes	4	.55-1(h)	G
Crude hydrocarbon feedstock (containing Butyraldehydes and Ethylpropyl acrolein)	CHG		0	С	Ш	Α	No	N/A	No	G
1,1-Dichloroethane	DCH	36	0	С	III	Α	Yes	1	No	G
Dichloromethane	DCM	1 36	0	NA	III	Α	Yes	5	No	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	III	Α	Yes	3	No	G
1,3-Dichloropropene	DPU	15	0	D	II	Α	Yes	4	No	G
Dichloropropene, Dichloropropane mixtures	DMX	(15	0	С	11	Α	Yes	1	No	G
1,4-Dioxane	DOX	41	0	С	11	Α	Yes	1	No	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
Ethyl acrylate	EAC	14	0	С	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Ethylene cyanohydrin	ETC	20	0	Е	Ш	Α	Yes	1	No	G
Ethylene dichloride	EDC	36 ²	0	С	Ш	Α	Yes	1	No	G
Ethylene glycol hexyl ether	EGH	1 40	0	E	111	Α	No	N/A	No	G

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

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



Serial #: C1-1201224

Dated: 06-Mar-12

Certificate of Inspection

Cargo Authority Attachment

Official #: 1240503

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Shipyard: Conrad Hull #: C-985

Cargo Identification	n					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			
Ethylene glycol monoalkyl ethers	EGC	40	0	D/E	111	Α	Yes	1	No	G			
Ethylene glycol propyl ether	EGP	40	0	E	Ш	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	Α	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	111	Α	Yes	1	.55-1(h)	G			
Furfural	FFA	19	0	D	111	Α	Yes	1	.55-1(h)	G			
Glutaraldehyde solution (50% or less)	GTA	19	0	NA	111	Α	No	N/A	No	G			
Hydrocarbon 5-9	HFN		0	С	111	Α	Yes	1	.50-70(a), .50-81(a), (b)	G			
Isoprene	IPR	30	0	Α	III	Α	Yes	7	.50-70(a), .50-81(a), (b)	G			
Mesityl oxide	MSO	18 ²	0	D	111	Α	Yes	1	No	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 methacrylate	MMN	1 14	0	С	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b)	G			
alpha-Methylstyrene	MSR	30	0	D	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G			
1- or 2-Nitropropane	NPM	42	0	D	111	A	Yes	1	.50-81	G			
Pentachloroethane	PCE	36	0	NA	111	A	No	N/A	No	G			
1,3-Pentadiene	PDE	30	0	A	 	A	Yes	7	.50-70(a), .50-81	G			
Perchloroethylene	PER	36	0	NA	III	A	No	N/A	No	G			
iso-Propyl ether	IPE	41	0	C	111	A	Yes	1	.50-70(a)	G			
Sodium chlorate solution (50% or less)	SDD	0 1,2		NA	111	A	No	N/A	.50-73	G			
Styrene (crude)	STX		0	D	111	A	Yes	2	No	G			
Styrene monomer	STY	30	0	D	111	A	Yes	2	.50-70(a), .50-81(a), (b)	G			
1,1,2,2-Tetrachloroethane	TEC	36	0	NA	- 111	A	No	N/A	No	G			
Tetrahydrofuran	THF	41	0	C	III	A	Yes	1	.50-70(b)	G			
1,2,4-Trichlorobenzene	TCB	36	0	E	111	A	5.50		No	G			
Trichloroethylene	TCL	36 ²	0	NA		A A	Yes	1	No	G			
Valeraldehyde (all isomers)	VAK	19	0	D		_	Yes	1					
Vinyl acetate	VAN	13	0	C	111	A	Yes						
Vinyl neodecanate	VND	13	0	E	111	A	Yes	2 N/A	.50-70(a), .50-81(a), (b) .50-70(a), .50-81(a), (b)	G			
Subchapter D Cargoes Authorized for Vapor Contro				_			110	N/A					
Acetone	ACT	18 ²	D	С		A	Yes	1		<u> </u>			
Acetophenone	ACP	18	D	E		A	Yes	<u> </u>					
Alcohol(C12-C16) poly(1-6)ethoxylates	APU	20	D	E		A	Yes	1					
Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates	AEB	20	D	E		A	Yes	1					
Amyl acetate (all isomers)	AEC	34	D D	D		A	Yes	1					
Amyl alcohol (iso-, n-, sec-, primary)	AAI	20	D	D			Yes			-			
Benzyl alcohol	BAL	21	D	E		A	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		A	Yes	1	nathananaga like ana bana ka ma is ka ka ka barak a hangisi	ngia abanan			
Butyl acetate (all isomers)	BAX	34	D	D		^	V						
Butyl alcohol (iso-)	IAL	20 2	200	D		Α	Yes	1					
Butyl alcohol (n-)	10000000	NOTE AND DE	D			Α	Yes	1					
Butyl alcohol (sec-)	BAN	20 2	D	D		A	Yes	1					
Butyl alcohol (tert-)	BAS	20 ²	D	С		Α	Yes	1		2			
Butyl benzyl phthalate	BAT	24	D	С		Α	Yes						
Datyi Donzyi pilinalate	BPH	34	D	E		Α	Yes	1					



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Certificate of Inspection

Cargo Authority Attachment

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Shipyard: Conrad

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Hull #: C-985

Chem	0					Vapor F	200011001		
					12200000	-		THE RESIDENCE OF THE PROPERTY OF THE	
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
CLS	22	D	E		Α	Yes	1		
CHX	31	D	С		Α	Yes	1		
CHN	20	D	E		Α	Yes	1		
CPD	30	D	D/E		Α	Yes	2		
CMP	32	D	D		Α	Yes	1		
IDA	19	D	Е		Α	Yes	1		
DAL	19	D	E		Α	Yes	1		
DCE	30	D	D		Α	Yes	1		
DAX	20 2	D	E		Α	Yes	1		
DBZ	32	D	E		Α	Yes	1		
DAA	20 2	D	D		Α	Yes	1		2.
DPA	34	D	E		Α	Yes	1		N
DEB	32	D	D		Α	Yes	1		
DEG	40 2	D	E		Α	Yes	1		
DBL	30	D	С		Α	Yes	1		
DIK	18	D	D		Α	Yes	1		
DIX	32	D	E		Α	Yes	1		
DTL	34	D	E		Α	Yes	1		
DOP	34	D	E		Α	Yes	1		
DPN	30	D	D		Α	Yes	1		
DIL	32	D	D/E		Α	Yes	1		
DDO	33	D	E		Α	Yes	. 1		
DPE	41	D	{E}		Α	Yes	1		
DPG	40	D	E		Α	Yes	1		
DFF	33	D	E		Α		1	-	
DSR	33	D	E		Α	V2001	1		
DOZ	30	D	D		A		1		
DDB	32	D	E						
2 2000000		70%							
						189/87	590.0		
	- 18990		233			10000000			
					4/50000	200/000/			
2000	7.00	7.55							
		_							
-									
		-				0.000			
	CHX CHN CPD CMP IDA DAL DCE DAX DBZ DAA DPA DEB DEG DBL DIK DIX DTL DOP DPN DIL DDO DPE DPG DFF DSR	CHX 31 CHN 20 CPD 30 CMP 32 IDA 19 DAL 19 DAL 19 DCE 30 DAX 20 2 DBZ 32 DAA 20 2 DBA 34 DEB 32 DEG 40 2 DBL 30 DIK 18 DIX 32 DTL 34 DDP 34 DDP 34 DDP 34 DPN 30 DIL 32 DDO 33 DPE 41 DPG 40 DFF 33 DSR 33 DOZ 30 DDB 32 EEA 34 ETG 40 ETA 34 EAA	CHX 31 D CHN 20 D CHN 20 D CPD 30 D CMP 32 D IDA 19 D DAL 19 D DAL 19 D DAL 20 D DAX 20 D DBZ 32 D DAX 20 D DBZ 32 D DBZ 30 D DBZ 32 D DBZ 32 D DBZ 32 D DBZ 32 D DBZ 33 D DBZ 30 D DBZ	CHX 31 D C CHN 20 D E CPD 30 D D/E CMP 32 D D IDA 19 D E DAL 19 D E DCE 30 D D D DAX 20 2 D E D	CHX 31 D C CHN 20 D E CPD 30 D D/E CMP 32 D D IDA 19 D E DAL 19 D E DAL 19 D E DAZ 20 D D DAX 32 D D DAX 20 D D DAX 32 D D DAX 20 D DAX	CHX 31 D C A CHN 20 D E A CPD 30 D D/E A CPD 30 D D/E A CMP 32 D D A IDA 19 D E A DAL 19 D E A DAL 20 D E A DAX 20 D D A DBL 30 D C A DIX 32 D E A DDL 34 D E A DDD 33 D E A DDD 34 D E A DDD 35 D D A DDB 32 D E A DDB A D	CHX 31 D C A Yes CHN 20 D E A Yes CPD 30 D D/E A Yes CMP 32 D D A Yes IDA 19 D E A Yes DAL 19 D E A Yes DAX 20 2 D E A Yes DAX 20 2 D D A Yes DBA 30 D C A Yes DEB 32 D E A Yes DBL 30 D C A Yes DIK 18 D D A	CHX 31 D C A Yes 1 CHN 20 D E A Yes 1 CPD 30 D D/E A Yes 2 CMP 32 D D A Yes 1 IDA 19 D E A Yes 1 DAL 19 D E A Yes 1 DAL 19 D E A Yes 1 DAL 20 D E A Yes 1 DAL 20 D E A Yes 1 DAL 30 D D A Yes 1 DAX 20 D D A Yes 1 DBZ 32 D E A Yes 1 DBA 32 D D A Yes 1 DBA 32 D E A Yes 1 DBA 32 D D A Yes 1 DBA 34 D E A Yes 1 DBL 30 D C A Yes 1 DIX 32 D E A Yes 1 DIX 32 D E A Yes 1 DIX 32 D E A Yes 1 DDIX 32 D E A Yes 1 DDIX 32 D E A Yes 1 DDIX 32 D E A Yes 1 DDD 34 D E A Yes 1 DDD 34 D E A Yes 1 DDD 35 D D A Yes 1 DDD 36 D D A Yes 1 DDD 37 D D A Yes 1 DDD 38 D E A Yes 1 DDD 39 D D A Yes 1 DDD 39 D D A Yes 1 DDD 30 D D A Yes 1 DDD 31 D E A Yes 1 DDD 32 D D/E A Yes 1 DDD 33 D E A Yes 1 DDD 34 D E A Yes 1 DDD 35 D E A Yes 1 DDD 36 D D A Yes 1 DDD 37 D E A Yes 1 DDD 38 D E A Yes 1 DDD 39 D D A Yes 1 DDD 30 D D A Yes 1 DDD 30 D D A Yes 1 DDD 31 D E A Yes 1 DDD 32 D D E A Yes 1 DDD 33 D E A Yes 1 DDB 32 D E A Yes 1 EEA 34 D D A Yes 1 EEB 32 D C A Yes 1 EEB 32 D C A Yes 1 EEB 34 D D A Yes 1 EED 34 D D A Yes 1	CHX 31 D C A Yes 1 CHN 20 D E A Yes 1 CPD 30 D D/E A Yes 1 CPD 30 D D/E A Yes 1 IDA 19 D E A Yes 1 IDA 19 D E A Yes 1 DAL 19 D E A Yes 1 DCE 30 D D A Yes 1 DCE 30 D D A Yes 1 DBZ 32 D D A Yes 1 DBZ 32 D D A Yes 1 DBZ 32 D D A Yes 1 DBA 20 D D A Yes 1 DBA 20 D D A Yes 1 DBB 30 D D A Yes 1 DBB 30 D C A Yes 1 DBL 30 D C A Yes 1 DBL 30 D C A Yes 1 DIX 32 D E A Yes 1 DIX 32 D E A Yes 1 DIX 32 D E A Yes 1 DDD 34 D E A Yes 1 DDD 34 D E A Yes 1 DDD 34 D E A Yes 1 DDD 35 D A Yes 1 DDD 36 D A Yes 1 DDD 37 D A Yes 1 DDD 38 D C A Yes 1 DDD 39 D C A Yes 1 DDD 30 D D A Yes 1 DDD 31 D E A Yes 1 DDD 33 D E A Yes 1 DDD 34 D E A Yes 1 DDD 35 D A Yes 1 DDD 36 D A Yes 1 DDD 37 D A Yes 1 DDD 38 D E A Yes 1 DDD 39 D A Yes 1 DDD 30 D D A Yes 1 DDD 30 D D A Yes 1 DDD 31 D E A Yes 1 DDD 32 D E A Yes 1 EEA 34 D D A Yes 1 EEB 30 D D A Yes 1 EEB 31 D D A Yes 1



Serial #: C1-1201224 Dated:

06-Mar-12

Certificate of Inspection

Cargo Authority Attachment

Official #: 1240503

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Shipyard: Conrad Hull #: C-985

Cargo Identification	n							Condi	tions of Carriage	
							_	Recovery		T
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
Gasoline blending stocks: Alkylates	GAK	33	D	A/C		Α	Yes	1		
Gasoline blending stocks: Reformates	GRF	33	D	A/C		Α	Yes	1		
Gasolines: Automotive (containing not over 4.23 grams lead per gallon)	GAT	33	D	С		Α	Yes	1		
Gasolines: Aviation (containing not over 4.86 grams of lead per gallon)	GAV	33	D	С		Α	Yes	1		
Gasolines: Casinghead (natural)	GCS	33	D	A/C		Α	Yes	1		
Gasolines: Polymer	GPL	33	D	A/C		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		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 ²	D	B/C		Α	Yes	1		
Hexanoic acid	нхо	4	D	E		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 ²	D	E		Α	Yes	1		
Jet fuel: JP-4	JPF	33	D	E		Α	Yes	1	*	
Jet fuel: JP-5 (kerosene, heavy)	JPV	33	D	D		Α	Yes	1	No. of the last of	
Kerosene	KRS	33	D	D		Α	Yes	1		8.5
Methyl acetate	MTT	34	D	D		Α	Yes	1		
Methyl alcohol	MAL	20 ²	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 2	D	С		Α	Yes	1		
Methyl butyl ketone	MBK	18	D	С		Α	Yes	1		
Methyl butyrate	MBU	34	D	С		Α	Yes	1		
Methyl ethyl ketone	MEK	18 ²	D	С		Α	Yes	1		
Methyl heptyl ketone	MHK	18	D	D		A	Yes	1		
Methyl isobutyl ketone	MIK	18 ²	D	С		Α	Yes	1		
Methyl naphthalene (molten)	MNA	32	D	Е		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		A	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	- X	
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		Α	Yes	1		
Octane (all isomers), see Alkanes (C6-C9)	OAX	31	D	С		Α	Yes	1		
+++ TI:- 1 1 1:1 1			- 77	-						



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	Cargo Identifica	tion					Conditions of Carriage						
Name								Vapor I	Recovery		T		
Octon Cateno Call Isomers Octon Oc	Name				Grade						Insp. Period		
Octore Color Col	Octanoic acid (all isomers)	OAY	4	D	E		Α	Yes	1				
Oil, fuel: No. 2	Octanol (all isomers)	OCX	20 ²	D	E		Α	Yes	1				
Oil, fuel: No. 2-D OTD 33 D D A Yes 1 Oil, fuel: No. 5 OFP 33 D DIE A Yes 1 Oil, fuel: No. 5 OFP 33 D DIE A Yes 1 Oil, fuel: No. 5 OFP 33 D E A Yes 1 Oil, fuel: No. 6 OSX 33 D E A Yes 1 Oil, misc: Clude OID 33 D DIE A Yes 1 Oil, misc: Clude OID 33 D E A Yes 1 Oil, misc: Clude ORB 33 D E A Yes 1 Oil, misc: Clude ORB 33 D E A Yes 1 Oil, misc: Clude ORB 33 D E A Yes 1 Oil, misc: Clude ORB 33 D E	Octene (all isomers)	OTX	30	D	С		Α	Yes	2				
Oil, fuel: No. 4	Oil, fuel: No. 2	OTW	33	D	D/E		Α	Yes	1				
Oil, fuel: No. 5	Oil, fuel: No. 2-D	OTD	33	D	D		Α	Yes	1				
Dit fuel: No. 6	Oil, fuel: No. 4	OFR	33	D	D/E		Α	Yes	1				
Oil, miss: Crude OIL 33 D C/D A Yes 1 Oil, miss: Diesel ODS 33 D D/E A Yes 1 Oil, miss: Diesel ODS 33 D E A Yes 1 Oil, miss: Lubricating OLB 33 D E A Yes 1 Oil, miss: Turbine ORB 33 D E A Yes 1 Pentan (all isomers) PTY 31 D A A Yes 1 Pentan (all isomers) PTY 31 D A A Yes 5 Penten (all isomers) PTX 30 D A A Yes 5 Penten (all isomers) PTX 30 D A A Yes 1 Penten (all isomers) PTX 30 D A A Yes 1 Penten (all isomers) PRE 30	Oil, fuel: No. 5	OFV	33	D	D/E		Α	Yes	1		49		
Oil, misc: Diesel	Oil, fuel: No. 6	OSX	33	D	E		Α	Yes	1				
Oil, misc: Gas, high pour OiP S3 D E A Yes 1	Oil, misc: Crude	OIL	33	D	C/D		Α	Yes	1				
Oil, misc: Lubricating OLB 33. D E A Yes 1 Oil, misc: Residual ORL 33. D E A Yes 1 Pentane (all isomers) PTY 31. D A A Yes 5 Pentane (all isomers) PTY 31. D A A Yes 5 Pentane (all isomers) PTY 31. D A A Yes 5 Pentane (all isomers) PTY 31. D A A Yes 5 Pentane (all isomers) PTY 31. D A A Yes 5 Pentane (all isomers) PTY 31. D A A Yes 1 Importance (all isomers) PPE 34. D D A Yes 1 Polytopylogine glycol monoalikyl(C1-C6) ether PPG 40. D E A Yes 1 Polytopylogine glycol monoa	Oil, misc: Diesel	ODS	33	D	D/E		Α	Yes	1				
Oil, misc: Turbine ORL 33 D E A Yes 1 Oil, misc: Turbine OTB 33 D E A Yes 1 Pentane (all isomers) PTX 31 D A A Yes 5 Pentene (all isomers) PTX 30 D A A Yes 5 n-Pently propionate PPE 34 D D A Yes 1 alpha-Pinene PIP 30 D D A Yes 1 beta-Pinene PIP 30 D D A Yes 1 Polyt2-Bjalkylene glycol monoalkyl (C1-C6) ether PAG 40 D E A Yes 1 Polyt2-Bjalkylene glycol monoalkyl (C1-C6) ether acetate PAF 34 D E A Yes 1 Polyt2-Bjalkylene glycol monoalkyl (C1-C6) ether acetate PAF 34 D E A Yes 1	Oil, misc: Gas, high pour	OGP	33	D	Е		Α	Yes	1				
Oil, misc: Turbine OTB 33 D E A Yes 1 Pentane (all isomers) PTY 31 D A A Yes 5 en-Pentyl propionate PPE 34 D D A Yes 1 alpha-Pinene PPO 30 D D A Yes 1 beta-Pinene PPO 30 D D A Yes 1 betyl-Sa)alkylene glycol monoalkyl(C1-C6) ether PAG 40 D E A Yes 1 Polyl-Sa)alkylene glycol monoalkyl(C1-C6) ether acetate PAF 34 D E A Yes 1 Polyl-Sa)alkylene glycol monoalkyl(C1-C6) ether acetate PAF 34 D E A Yes 1 Polyl-Sa)alkylene glycol monoalkyl(C1-C6) ether acetate PAF 34 D E A Yes 1 Polyb-Sa)alkylene glycol monoalkyl(C1-C6) ether acetate PAF 34 D C A<	Oil, misc: Lubricating	OLB	33.	D	Е		Α	Yes	1				
Pentane (all isomers)	Oil, misc: Residual	ORL	33	D	E		Α	Yes	1				
Pentence (all isomers) PTX 30 D A A Yes 5 n-Pently propionate PPE 34 D D A Yes 1 alpha-Pinene PIO 30 D D A Yes 1 beta-Pinene PIP 30 D D A Yes 1 Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether PAG 40 D E A Yes 1 Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate PAF 34 D E A Yes 1 Polybuchylene glycol PGG 40 D E A Yes 1 Polyburopylene glycol PGC 40 D E A Yes 1 Polyburopylene glycol PGC 40 D E A Yes 1 sio-Propyl acetate IPAT 34 D C A Yes 1 n-Propyl acetate	Oil, misc: Turbine	ОТВ	33	D	E		Α	Yes	1				
PPE 34	Pentane (all isomers)	PTY	31	D	Α		Α	Yes	5				
A	Pentene (all isomers)	PTX	30	D	Α		Α	Yes	5		¥		
Deta-Pinene	n-Pentyl propionate	PPE	34	D	D		Α	Yes	1				
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	alpha-Pinene	PIO	30	D	D		Α	Yes	1				
Poly/2-8)alkylene glycol monoalkyl(C1-C6) ether acetate	beta-Pinene	PIP	30	D	D		Α	Yes	1				
Publy Publ	Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	PAG	40	D	E		Α	Yes	1				
PLB 30 D E	Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate	PAF	34	D	E			Yes					
Polypropylene glycol	Polybutene	PLB	30	D			972	1000000		1000 mm (1000 mm)			
Iso-Propyl acetate	Polypropylene glycol	PGC	40	D			2007						
n-Propyl acetate PAT 34 D C A Yes 1 iso-Propyl alcohol IPA 20 ° 2 D C A Yes 1 n-Propyl alcohol PAL 20 ° 2 D C A Yes 1 Propylence (all isomers) PBY 32 D D A Yes 1 Propylence (all isomers) IPX 31 D D A Yes 1 Propylence (all isomers) IPX 31 D D A Yes 1 Propylence (all isomers) PPG 20 ° 2 D E A Yes 1 Propylence (all isomers) PPG 20 ° 2 D E A Yes 1 Propylence (all isomers) PPG 20 ° 2 D E A Yes 1 Propylence (all isomers) PPG 20 ° 2 D E A Yes 1 Station (all isomers)						71.710				•			
IPA 20 2 D C A Yes 1		PAT	34	D	1000		-						
n-Propyl alcohol PAL 20 ° 2 D C A Yes 1 Propylbenzene (all isomers) PBY 32 D D A Yes 1 iso-Propylcyclohexane IPX 31 D D A Yes 1 Propylene glycol PPG 20 ° 2 D E A Yes 1 Propylene glycol methyl ether acetate PGN 34 D D A Yes 1 Propylene tetramer PTT 30 D D A Yes 1 Sulfolane SFL 39 D E A Yes 1 Tetraethylene glycol TTG 40 D E A Yes 1 Tetrathydronaphthalene TN 32 D E A Yes 1 Tricresyl phosphate (less than 1% of the ortho isomer) TCP 34 D E A Yes 1 Triethylene glycol				D	100								
Propylbenzene (all isomers) PBY 32 D D A Yes 1 iso-Propylcyclohexane IPX 31 D D A Yes 1 Propylene glycol PPG 20° D E A Yes 1 Propylene glycol methyl ether acetate PGN 34 D D A Yes 1 Propylene tetramer PTT 30 D D A Yes 1 Sulfolane SFL 39 D E A Yes 1 Tetraethylene glycol TTG 40 D E A Yes 1 Tetrahydronaphthalene THN 32 D E A Yes 1 Toluene TOL 32 D C A Yes 1 Tricresyl phosphate (less than 1% of the ortho isomer) TCP 34 D E A Yes 1 Triethylene glycol TEG <td></td> <td></td> <td>20 ²</td> <td></td> <td>1000</td> <td></td> <td>1000</td> <td></td> <td></td> <td></td> <td></td>			20 ²		1000		1000						
IPX 31 D D D A Yes 1				_						2			
Propylene glycol PPG 20 ° 2 ° D ° E A Yes 1 Propylene glycol methyl ether acetate PGN 34 ° D ° D ° A ° Yes 1 Propylene tetramer PTT 30 ° D ° D ° A ° Yes 1 Sulfolane SFL 39 ° D ° E ° A ° Yes 1 Tetraethylene glycol TTG ° 40 ° D ° E ° A ° Yes 1 Tetrathydronaphthalene THN 32 ° D ° E ° A ° Yes 1 Toluene TOL 32 ° D ° C ° A ° 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 ° A ° Yes 1 Triethyl phosphate TPS 34 ° D ° E ° A ° Yes 1 Trimethylbenzene (all isomers) TRE 32 ° D ° (D) ° A ° Yes 1 Trixylenyl phosphate TRP 34 ° D ° E ° A ° Yes 1 Undecene UDC 30 ° D ° D/E ° A ° Yes 1							201011						
Propylene glycol methyl ether acetate PGN 34 D D A Yes 1 Propylene tetramer PTT 30 D D A Yes 1 Sulfolane SFL 39 D E A Yes 1 Tetraethylene glycol TTG 40 D E A Yes 1 Tetrahydronaphthalene THN 32 D E A Yes 1 Toluene TOL 32 D C A Yes 1 Tricresyl phosphate (less than 1% of the ortho isomer) TCP 34 D E A Yes 1 Triethylenzene TEB 32 D E A Yes 1 Triethylene glycol TEG 40 D E A Yes 1 Triethyl phosphate TPS 34 D E A Yes 1 Trixylenyl phosphate TRP <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
Propylene tetramer PTT 30 D D A Yes 1 Sulfolane SFL 39 D E A Yes 1 Tetraethylene glycol TTG 40 D E A Yes 1 Tetrahydronaphthalene THN 32 D E A Yes 1 Toluene TOL 32 D C A 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 Triethyl phosphate TPS 34 D E A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>575</td> <td></td> <td><u> </u></td> <td></td>								575		<u> </u>			
Sulfolane SFL 39 D E A Yes 1 Tetraethylene glycol TTG 40 D E A Yes 1 Tetrahydronaphthalene THN 32 D E A Yes 1 Toluene TOL 32 D C A 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 A Yes 1 Triethyl phosphate TPS 34 D E A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D D/E A Yes 1													
Tetraethylene glycol TTG 40 D E A Yes 1 Tetrahydronaphthalene THN 32 D E A Yes 1 Toluene TOL 32 D C A Yes 1 Tricersyl 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 A Yes 1 Triethyl phosphate TPS 34 D E A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D D/E A Yes 1		18 18189	575,038		2277								
Tetrahydronaphthalene THN 32 D E A Yes 1 Toluene TOL 32 D C A Yes 1 Tricersyl 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 A Yes 1 Triethyl phosphate TPS 34 D E A Yes 1 Trimethylbenzene (all isomers) TRE 32 D {D} A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D D/E A Yes 1		2.000000000				-		1100000000					
Toluene TOL 32 D C A 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 A Yes 1 Triethyl phosphate TPS 34 D E A Yes 1 Trimethylbenzene (all isomers) TRE 32 D {D} A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D D/E A Yes 1							- N	W. 1900-100-0					
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 A Yes 1 Triethyl phosphate TPS 34 D E A Yes 1 Trimethylbenzene (all isomers) TRE 32 D {D} A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D D/E A Yes 1													
Triethylbenzene TEB 32 D E A Yes 1 Triethylene glycol TEG 40 D E A Yes 1 Triethyl phosphate TPS 34 D E A Yes 1 Trimethylbenzene (all isomers) TRE 32 D {D} A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D D/E A Yes 1													
Triethylene glycol TEG 40 D E A Yes 1 Triethyl phosphate TPS 34 D E A Yes 1 Trimethylbenzene (all isomers) TRE 32 D {D} A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D D/E A Yes 1													
Triethyl phosphate TPS 34 D E A Yes 1 Trimethylbenzene (all isomers) TRE 32 D {D} A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D D/E A Yes 1							27.000						
Trimethylbenzene (all isomers) TRE 32 D {D} A Yes 1 Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D D/E A Yes 1													
Trixylenyl phosphate TRP 34 D E A Yes 1 Undecene UDC 30 D D/E A Yes 1													
Undecene UDC 30 D D/E A Yes 1	WOOL 10 10 10 10 10 10 10 10 10 10 10 10 10						78						
					3500			-					
1-UND ZU D E A Yes 1			000117		100000000000000000000000000000000000000								
Xylenes (ortho-, meta-, para-) XLX 32 D D A Yes 1													



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Certificate of Inspection

Cargo Authority Attachment

Official #: 1240503

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Shipyard: Conrad Hull #: C-985

Explanation of terms & symbols used in the Table:

Cargo Identification

Name

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.

Chem Code

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 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 Note 1 Compatibility Chart. For additional compatibility information, contact Commandant (CG-3PSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. Telephone (202) 372-1425.

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

Subchapter Subchapter D Subchapter O Note 3

Note 4

Note 2

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

Those flammable and combustible liquids listed in 46 CFR Table 30.25-1. Those hazardous cargoes listed in 46 CFR Table 151.05 and 46 CFR Part 153 Table 2.

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

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

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

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

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 Recover 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:

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 156.170, 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

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.

Category 4

This requirement is in addition to the requirements of Category 1

(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

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