

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

Certification Date: 13 Dec 2023 Expiration Date: 13 Dec 2028

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.

Vessel Name	Off	icial Number	IMO Num	ber	Cell Sign	Service	
HTCO 3098	12	246720				Tank	Barge
Hailing Port			<u> </u>		<u> </u>		.
HOUSTON, TX		Hull Material Steel	Horse	spower	Propulsion		
UNITED STATES							
Place Built		Delivery Date	Keel Laid Date	Gross Tons	Net Tons	DWT	
MADISONVILLE, LA		241.42042		R-1619	R-1619	DIV 1	Length R-297.5
UNITED STATES		24Jul2013	19Jun2013	F	F		10
Owner HIGMAN BARGE LINES IN THE STATE STATES IN THE STATES IN THE STATES			1835 CHAI	Y INLAND I O MARKET	, TX 77530		
This vessel must be manne Certified Lifeboatmen, 0 (d with the follow Certified Tanker	ring licensed men, 0 HSC	and unlicensed Type Rating, a	l Personnel	Included in wiss Operators.	hich there n	nust be
0 Masters	O Licensed Mates		Engineers	0 Oi			
0 Chief Mates	0 First Class Pilots	s 0 First A	ssistant Engineer	3			
0 Second Mates	0 Radio Officers	0 Secon	d Assistant Engin	eers			
0 Third Mates	0 Able Seamen	0 Third	Assistant Enginee	rs			
0 Master First Class Pilot	0 Ordinary Seame	n 0 Licens	ed Engineers				
0 Mate First Class Pilots	0 Deckhands		ed Member Engin				
n addition, this vessel may ersons allowed: 0	carry 0 Passeng	jers, 0 Other	Persons in cre	w, 0 Persor	is in addition to	crew, and	no Others. Tot
Route Permitted And Cor	nditions Of Ope	eration:		*			· · ·
Lakes, Bays, and			Coastwies)			
	PIU	:::::::::::::::::::::::::::::::::::	AA60111195				

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

SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION

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

1000000	Annual/Perio	dic/Re-Ins	spection	This certificate issued by: 8.P. Began
Date	Zone	A/P/R	Signature	B.P. BERGAN CDR, USCG, BY DIRECTION
11.15.24	HOUSTON	A	JAKE FICANCIS	Officer in Charge, Marine Inspection
		-		Houston-Galveston
		_		Inspection Zone



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

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

---Hull Exams---

Exam Type

Next Exam

Last Exam

Prior Exam

DryDock

30Nov2033

29Nov2023

24Jul2013

Internal Structure

31Oct2028

25Oct2023

14Sep2018

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

Authorization:

Grade "A" and Lower and Specified Hazardous Cargoes.

Total Capacity

Units

Highest Grade Type

Part151 Regulated

Part153 Regulated

Part154 Regulated

29069

Barrels

Yes

No

No

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	835	13.6
2 P/S	848	13.6
3 P/S	769	13.6

Loading Constraints - Stability

Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Description
11	3799	10ft 0in	13.60	R, LBS
Ш	4669	11ft 9in	13.60	R, LBS

Conditions Of Carriage

Only those cargoes named in the vessel's Cargo Authority Attachment (CAA), Serial # C1-1300352, dated February 7, 2013, may be carried, and then only in the tanks indicated. 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 150.130, the Person in Charge of the vessel is responsible for ensuring that the cmpatibility requirements of 46 CFR 150 are met. Cargoes must be checked for ompatibility using the figures, tables, and appendices of 46 CFR 150 in conjunction with the compatibility group numbers from the "Compat Group No" column listed in the vessel's Cargo Authority Attachment.

The maximum design density of cargo which may be filled to the tank top is 8.74 lbs/gal. Cargoes with higher densities, up to 13.6 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 max tank weights 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.



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Vapor Control Authorization

In accordance with 46 CFR Part 39, excluding part 39.4000, this vessel's vapor collection system (VCS) has been inspected to the plans approved by MSC Letter # C1-1300352 dated February 7, 2013 and updated by C1-1801781 dated May 14, 2018, and has been found acceptable for the collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column. The VCS system has been approved with a pressure side of 3 psig P/V valve with Coast Guard Approval 162.017/167/4. The cargo tank top is suitable for a maximum allowable working pressure (MAWP) of 3.50 psig.

In accordance with 46 CFR Part 39.5000, this vessel's VCS has been evaluated and approved for multi-breasted tandem loading with other vessels specifically approved by Marine Safety Center letter Serial No. C1-1600601 dated February 18, 2016

--- Inspection Status ---

Cargo Tanks

	Internal Exam	1		External Exam							
Tank Id	Previous	Last	Next	Previous	Last	Next					
1 P/S	14Sep2018	25Oct2023	31Oct2033	14Sep2018	25Oct2023	31Oct2028					
2 P/S	14Sep2018	25Oct2023	31Oct2033	14Sep2018	25Oct2023	31Oct2028					
3 P/S	14Sep2018	25Oct2023	31Oct2033	14Sep2018	25Oct2023	31Oct2028					
			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

40-B

END



Official #: 1246720

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: HTCO 3098

Shipyard: Trinity Marine Madisonville

Serial #:

Dated:

C1-1300352

07-Feb-13

Hull #: 2210-1

46 CFR 151 Tank Group Characteristics

Tank Group Information	Cargo I	dentificati	on		Ca		Tanks		Carg Trans		Environ Control		Fire	Special Require	ments		
Tnk Grp Tanks in Group	Density	Press.	Temp.	Hull	Cargo Seg Tank	_	Vent	Gauge	Pipe Class	Cont	Tanks	Handling Space	Protection Provided	General	Materials of Construction	Elec Haz	Temp Cont
A #1 P/S; #2 P/S; #3 P/S	13.6	Atmos.	Amb.	II	1ii 2ii	Integral Gravity	PV	Closed	II	G-1	NR	NA	Portable	.50-60, .50-70(a), .50-70(b), .50-73, .50-81(a), .50- 81(b),	55-1(c), (e), (h), 56- 1(b), (c), (d), (e), (f), (g),	NR	No

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

- 2. Under Environmental Control, Handling Space, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo handling space. NA means that the vessel does not have a cargo control space, and this requirement is not applied.
- 3. Under Electrical Hazard Class, NA means that the tank group is suitable only for those cargoes which have no electrical hazard class requirement. NR means that the vessel has no electrical equipment located in a hazardous location.

List of Authorized Cargoes

Cargo Identificatio	Conditions of Carriage									
							Vapor R	ecovery		
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd (Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period
Authorized Subchapter O Cargoes										
Acetonitrile	ATN	37	0	С	Ш	Α	Yes	3	No	G
Acrylonitrile	ACN	15 ²	0	С	П	Α	Yes	4	.50-70(a), .55-1(e)	G
Adiponitrile	ADN	37	0	Е	П	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	П	Α	No	N/A	No	G
Benzene	BNZ	32	0	С	Ш	Α	Yes	1	.50-60	G
Benzene or hydrocarbon mixtures (having 10% Benzene or more)	BHB	32 ²	0	С	Ш	Α	Yes	1	.50-60	G
Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more)	ВНА	32 ²	0	С	Ш	Α	Yes	1	.50-60, .56-1(b), (d), (f), (g)	G
Benzene, Toluene, Xylene mixtures (10% Benzene or more)	BTX	32	0	B/C	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	BMH	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	Ш	Α	No	N/A	No	G
Carbon tetrachloride	CBT	36	0	NA	Ш	Α	No	N/A	No	G
Chemical Oil (refined, containing phenolics)	COD	21	0	Е	Ш	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	Ш	Α	Yes	1	.50-73	G
Creosote	CCW	21 ²	0	Е	Ш	Α	Yes	1	No	G
Cresols (all isomers)	CRS	21	0	Е	Ш	Α	Yes	1	No	G
Crotonaldehyde	CTA	19 ²	0	С	П	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
Cyclohexanone, Cyclohexanol mixture	CYX	18 ²	0	Е	Ш	Α	Yes	1	.56-1 (b)	G
Cyclopentadiene, Styrene, Benzene mixture	CSB	30	0	D	Ш	Α	Yes	1	.50-60, .56-1(b)	G
iso-Decyl acrylate	IAI	14	0	Е	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b), .55-1(c)	G
1,1-Dichloroethane	DCH	36	0	С	Ш	Α	Yes	1	No	G
Dichloromethane	DCM	36	0	NA	Ш	Α	Yes	5	No	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	Ш	Α	Yes	3	No	G
1,3-Dichloropropene	DPU	15	0	D	Ш	Α	Yes	4	No	G



Serial #: C1-1300352 Dated: 07-Feb-13

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: HTCO 3098

Shipyard: Trinity Marine

Madisonville

Cargo Identification							Conditions of Carriage					
		_					Vapor R					
Name Dichloropropene, Dichloropropane mixtures	Chem Code DMX	Compat Group No 15	Sub Chapter O	Grade C	Hull Type II	Tank Group A	App'd (Y or N) Yes	VCS Category 1	Special Requirements in 46 CFR 151 General and Mat'ls of No	Insp. Period G		
Diethanolamine	DEA	8	0	Е	Ш	Α	Yes	1	.55-1(c)	G		
Diethylamine	DEN	7	0	С	III	Α	Yes	3	.55-1(c)	G		
Diethylenetriamine	DET	7 ²	0	Е	Ш	Α	Yes	1	.55-1(c)	G		
Diisobutylamine	DBU	7	0	D	Ш	Α	Yes	3	.55-1(c)	G		
Diisopropanolamine	DIP	8	0	Ε	Ш	Α	Yes	1	.55-1(c)	G		
Diisopropylamine	DIA	7	0	С	Ш	Α	Yes	3	.55-1(c)	G		
N,N-Dimethylacetamide	DAC	10	0	E	III	Α	Yes	3	.56-1(b)	G		
Dimethylethanolamine	DMB	8	0		III	Α	Yes	1	.56-1(b), (c)	G		
Dimethylformamide	DMF	10	0	D	III	Α	Yes	1	.55-1(e)	G		
Di-n-propylamine	DNA	7	0	С	II	Α	Yes	3	.55-1(c)	G		
Dodecyldimethylamine, Tetradecyldimethylamine mixture	DOT	7	0	E	III	A	No	N/A	.56-1(b)	G		
Dodecyl diphenyl ether disulfonate solution	DOS	43	0	#	II.	A	No	N/A	No	G		
	EEG	40	0	D	III	Α	No	N/A	No	G		
EE Glycol Ether Mixture	MEA	8	0	E	- 111	A	Yes	1	.55-1(c)	G		
Ethanolamine Studies and the	EAC	14	0	C	III		Yes	2	.50-70(a), .50-81(a), (b)	G		
Ethyl acrylate						Α			No	G		
Ethylene cyanohydrin	ETC	20	0	E	- 111	A	Yes	1	.55-1(c)	G		
Ethylenediamine	EDA	7 2	0	D	III	A	Yes	1		G		
Ethylene dichloride	EDC	36 ²	0	C	III	A	Yes	1	No			
Ethylene glycol hexyl ether	EGH	40	0	E	III	Α	No	N/A	No	G		
Ethylene glycol monoalkyl ethers	EGC	40	0	D/E	III	Α	Yes	1	No	G		
Ethylene glycol propyl ether	EGP	40	0	Е	Ш	Α	Yes	1	No	G		
2-Ethylhexyl acrylate	EAI	14	0	Е	Ш	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	III	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	Ш	Α	No	N/A	No	G		
Hexamethylenediamine solution	HMC	7	0	Е	Ш	Α	Yes	1	.55-1(c)	G		
Hexamethyleneimine	HMI	7	0	С	Ш	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	Ш	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		
Mesityl oxide	MSO	18 ²	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	Ш	Α	Yes	1	No	G		
Methyl diethanolamine	MDE	8	0	Е	Ш	Α	Yes	1	.56-1(b), (c)	G		
2-Methyl-5-ethylpyridine	MEP	9	0	Е	III	Α	Yes	1	.55-1(e)	G		
Methyl methacrylate	MMM	14	0	С	III	Α	Yes	2	.50-70(a), .50-81(a), (b)	G		
2-Methylpyridine	MPR	9	0	D	III	Α	Yes	3	.55-1(c)	G		
alpha-Methylstyrene	MSR	30	0	D	III	Α	Yes	2	.50-70(a), .50-81(a), (b)	G		
Morpholine	MPL	7 ²	0	D	III	Α	Yes	1	.55-1(c)	G		
Nitroethane	NTE	42	0	D	II	A	No	N/A	.50-81, .56-1(b)	G		
1- or 2-Nitropropane	NPM	42	0	D	 III	Α	Yes	1	.50-81	G		
1,3-Pentadiene	PDE	30	0	A	III	A	Yes	7	.50-70(a), .50-81	G		
	PER	36	0	NA NA	III	A	No	N/A	No	G		
Perchloroethylene Relyethylene pelyemines	PEB	7 ²	0	E	111	A	Yes	1	.55-1(e)	G		
Polyethylene polyamines			0	E					.55-1(c)	G		
iso-Propanolamine	MPA	8	U	_	Ш	Α	Yes	1	.00 1(0)	3		



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: HTCO 3098

Shipyard: Trinity Marine

Madisonville

 Official #:
 1246720
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 Hull #:
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Cargo Identification		Conditions of Carriage								
								Recovery		
Name	Chem Code	Compat Group No	Sub Chapte	Grade	Hull Type	Tank Group	App'd (Y or N)	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp.
Propanolamine (iso-, n-)	PAX	8	0	E	III	Α	Yes	1	.56-1(b), (c)	G
iso-Propylamine	IPP	7	0	Α	Ш	Α	Yes	5	.55-1(c)	G
Pyridine	PRD	9	0	С	III	Α	Yes	1	.55-1(e)	G
Sodium chlorate solution (50% or less)	SDD	0 1,2	0	NA	III	Α	No	N/A	.50-73	G
Styrene (crude)	STX		0	D	Ш	Α	Yes	2	No	G
Styrene monomer	STY	30	0	D	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
1,1,2,2-Tetrachloroethane	TEC	36	0	NA	Ш	Α	No	N/A	No	G
Tetraethylenepentamine	TTP	7	0	Е	III	Α	Yes	1	.55-1(c)	G
Tetrahydrofuran	THF	41	0	С	III	Α	Yes	1	.50-70(b)	G
1,2,4-Trichlorobenzene	TCB	36	0	Е	Ш	Α	Yes	1	No	G
Trichloroethylene	TCL	36 ²	0	NA	Ш	Α	Yes	1	No	G
Triethylamine	TEN	7	0	С	Ш	Α	Yes	3	.55-1(e)	G
Urea, Ammonium nitrate solution (containing more than 2% NH3)	UAS	6	0	NA	III	Α	No	N/A	.56-1(b)	G
Vinyl acetate	VAM	13	0	С	Ш	Α	Yes	2	.50-70(a), .50-81(a), (b)	G
Vinyl neodecanate	VND	13	0	Е	III	Α	No	N/A	.50-70(a), .50-81(a), (b)	G
•										
Subchapter D Cargoes Authorized for Vapor Contr		40.2				•				
Acetone	ACT	18 ²	D	С		Α	Yes	1		-
Acetophenone	ACP	18	D	E		Α .	Yes	1		
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		Α	Yes	1		
Amyl alcohol (iso-, n-, sec-, primary)	AAI	20	D	D		Α	Yes	1		
Benzyl alcohol	BAL	21	D	Е		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	BPH	34	D	Е		Α	Yes	1		
Butyl toluene	BUE	32	D	D		Α	Yes	1		
Caprolactam solutions	CLS	22	D	Е		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	E		A	Yes	1		
n-Decaldehyde	DAL	19	D	E		A	Yes	1		
Decene	DCE	30	D	D		A	Yes	1		
Decyl alcohol (all isomers)	DAX	20 ²	D	E		A	Yes	1		
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	D	E		A	Yes	1		
Diacetone alcohol	DAA	20 ²	D	D		A	Yes	1		
	DAA	34	D	E		A	Yes	1		
ortho-Dibutyl phthalate	DEB		D	D				1		
Diethylbenzene	DER	32	U	D		Α	Yes	1		
Diethylene glycol	DEG	40 ²	D	E		Α	Yes	1		



United States Coast Guard Dated: Certificate of Inspection

Cargo Authority Attachment

Vessel Name: HTCO 3098

Official #: 1246720

Shipyard: Trinity Marine Madisonville

07-Feb-13

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Discludy fetone	Cargo Identification	Conditions of Carriage									
Disable Name Name								Vapor I	Recovery		
Dischargon/planers Dischar	Nama				Grade						
Directly phthalate						TYPE				1101 General and Mat is of	Pellod
Departmenter Doctor Pathwalater Doctor Departmenter Doctor Departmenter Doctor Docto	Diisopropylbenzene (all isomers)	DIX	32	D	E		Α	Yes	1		
Dipertine	Dimethyl phthalate	DTL	34	D	Е		Α	Yes	1		
Diphenyin Diph	Dioctyl phthalate	DOP	34	D	E		Α	Yes	1		
Diphenyl, Diphenyl ether mixtures	Dipentene	DPN	30	D	D		Α	Yes	1		
Dipheryle ether	Diphenyl	DIL	32	D	D/E		Α	Yes	1		
Distributes: Flashed feed stocks	Diphenyl, Diphenyl ether mixtures	DDO	33	D	Е		Α	Yes	1		
Distillates: Flashed feed stocks	Diphenyl ether	DPE	41	D	{E}		Α	Yes	1		
Distillates: Straight run	Dipropylene glycol	DPG	40	D	Е		Α	Yes	1		
Dodecene (all isomers)	Distillates: Flashed feed stocks	DFF	33	D	Е		Α	Yes	1		
Dodecylbenzene, see Alkyl(C9+)benzenes	Distillates: Straight run	DSR	33	D	Е		Α	Yes	1		
2-Ethoxyethyl acetate	Dodecene (all isomers)	DOZ	30	D	D		Α	Yes	1		
Ethoxy triglycol (crude)	Dodecylbenzene, see Alkyl(C9+)benzenes	DDB	32	D	Е		Α	Yes	1		
Ethyl acetate	2-Ethoxyethyl acetate	EEA	34	D	D		Α	Yes	1		
Ethyl acetoacetate	Ethoxy triglycol (crude)	ETG	40	D	Е		Α	Yes	1		
Ethyl alcohol	Ethyl acetate	ETA	34	D	С		Α	Yes	1		
Ethylbenzene	Ethyl acetoacetate	EAA	34	D	Е		Α	Yes	1		
Ethyl butanol	Ethyl alcohol	EAL	20 ²	D	С		Α	Yes	1		
Ethyl terl-butyl ether	Ethylbenzene	ETB	32	D	С		Α	Yes	1		
Ethyl butyrate	Ethyl butanol	EBT	20	D	D		Α	Yes	1		
Ethyl cyclohexane	Ethyl tert-butyl ether	EBE	41	D	С		Α	Yes	1		
Ethylene glycol butyl ether acetate EMA 34 D E A Yes 1	Ethyl butyrate	EBR	34	D	D		Α	Yes	1		
Ethylene glycol butyl ether acetate	Ethyl cyclohexane	ECY	31	D	D		Α	Yes	1		
Ethylene glycol diacetate	Ethylene glycol	EGL	20 ²	D	Е		Α	Yes	1		
Ethylengelycol phenyl ether	Ethylene glycol butyl ether acetate	EMA	34	D	Е		Α	Yes	1		
Ethyl-3-ethoxypropionate	Ethylene glycol diacetate	EGY	34	D	Е		Α	Yes	1		
2-Ethylhexanol	Ethylene glycol phenyl ether	EPE	40	D	Е		Α	Yes	1		
Ethyl propionate EPR 34 D C A Yes 1 Ethyl toluene ETE 32 D D A Yes 1 Formamide FAM 10 D E A Yes 1 Furfuryl alcohol FAL 20 2 D E A Yes 1 Gasoline blending stocks: Alkylates GAK 33 D A/C A Yes 1 Gasolines blending stocks: Reformates GRF 33 D A/C A Yes 1 Gasolines: Automotive (containing not over 4.23 grams lead per gallon) GAT 33 D C A Yes 1 Gasolines: Aviation (containing not over 4.86 grams of lead per gallon) GAV 33 D C A Yes 1 Gasolines: Casinghead (natural) GCS 33 D A/C A Yes 1 Gasolines: Straight run GSR 33 D A/C A Y	Ethyl-3-ethoxypropionate	EEP	34	D	D		Α	Yes	1		
ETE 32	2-Ethylhexanol	EHX	20	D	Е		Α	Yes	1		
Formamide FAM 10 D E A Yes 1 Furfuryl alcohol FAL 20 2 D E A 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 gallon) Gasolines: Aviation (containing not over 4.86 grams of lead per gallon) Gasolines: Casinghead (natural) GCS 33 D A/C A Yes 1 Gasolines: Casinghead (natural) GCS 33 D A/C A Yes 1 Gasolines: Straight run GSR 33 D A/C A Yes 1 Glycerine GCR 20 2 D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanol (all isomers) HPX 30 D C A Yes 1 HPB 34 D E A Yes 1 Heptanol catide HPP 4 Yes 1 Heptanol call isomers) HPX 30 D C A Yes 1 Heptanol call isomers) HPX 30 D C A Yes 2 Heptyl acetate	Ethyl propionate	EPR	34	D	С		Α	Yes	1		
FAL 20 2 D E A Yes 1	Ethyl toluene	ETE	32	D	D		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 gallon) GAT 33 D C A Yes 1 Gasolines: Aviation (containing not over 4.86 grams of lead per gallon) GAV 33 D C A Yes 1 Gasolines: Casinghead (natural) GCS 33 D A/C A Yes 1 Gasolines: Polymer GPL 33 D A/C A Yes 1 Gasolines: Straight run GSR 33 D A/C A Yes 1 Glycerine GCR 20 2 D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanol (all isomers) HTX 20 D	Formamide	FAM	10	D	Е		Α	Yes	1		
Gasoline blending stocks: Reformates GRF 33 D A/C A Yes 1 Gasolines: Automotive (containing not over 4.23 grams lead per gallon) GAT 33 D C A Yes 1 Gasolines: Aviation (containing not over 4.86 grams of lead per gallon) GAV 33 D C A Yes 1 Gasolines: Casinghead (natural) GCS 33 D A/C A Yes 1 Gasolines: Polymer GPL 33 D A/C A Yes 1 Gasolines: Straight run GSR 33 D A/C A Yes 1 Glycerine GCR 20 2 D D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptyl acetate HPE 34 D E	Furfuryl alcohol	FAL	20 ²	D	Е		Α	Yes	1		
Gasolines: Automotive (containing not over 4.23 grams lead per gallon) Gasolines: Aviation (containing not over 4.86 grams of lead per gallon) Gasolines: Casinghead (natural) Gasolines: Casinghead (natural) Gasolines: Polymer GPL 33 D A/C A Yes 1 Gasolines: Straight run Gasolines: Straight run GSR 33 D A/C A Yes 1 Glycerine GCR 20 2 D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanoic acid HEP 4 D E A Yes 1 Heptanoic acid HEP 4 D E A Yes 1 Heptanoic (all isomers) HTX 20 D D/E A Yes 1 Heptanoic acid HEP 4 D E A Yes 1 Heptanoic (all isomers) HPX 30 D C A Yes 1 Heptanoic acid HEP 4 D E A Yes 1 Heptanoic (all isomers) HPX 30 D C A Yes 1	Gasoline blending stocks: Alkylates	GAK	33	D	A/C		Α	Yes	1		
gallon) Gasolines: Aviation (containing not over 4.86 grams of lead per gallon) GAV 33 D C A Yes 1 Gasolines: Casinghead (natural) GCS 33 D A/C A Yes 1 Gasolines: Polymer GPL 33 D A/C A Yes 1 Gasolines: Straight run GSR 33 D A/C A Yes 1 Glycerine GCR 20 2 D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanoic acid HEP 4 D E A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptene (all isomers) HPX 30 D C A Yes 1 Heptyl acetate HPE 34 D E A Yes <t< td=""><td>Gasoline blending stocks: Reformates</td><td>GRF</td><td>33</td><td>D</td><td>A/C</td><td></td><td>Α</td><td>Yes</td><td>1</td><td></td><td></td></t<>	Gasoline blending stocks: Reformates	GRF	33	D	A/C		Α	Yes	1		
gallon) Gasolines: Casinghead (natural) GCS 33 D A/C A Yes 1 Gasolines: Polymer GPL 33 D A/C A Yes 1 Gasolines: Straight run GSR 33 D A/C A Yes 1 Glycerine GCR 20 2 D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanoic acid HEP 4 D E A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptene (all isomers) HPX 30 D C A Yes 1 Heptyl acetate HPE 34 D E A Yes 1		GAT	33	D	С		Α	Yes	1		
Gasolines: Polymer GPL 33 D A/C A Yes 1 Gasolines: Straight run GSR 33 D A/C A Yes 1 Glycerine GCR 20 2 D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanoic acid HEP 4 D E A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptene (all isomers) HPX 30 D C A Yes 1 Heptyl acetate HPE 34 D E A Yes 1	, , , , , , , , , , , , , , , , , , , ,	GAV	33	D	С		Α	Yes	1		
Gasolines: Straight run GSR 33 D A/C A Yes 1 Glycerine GCR 20 ° D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanoic acid HEP 4 D E A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Hepture (all isomers) HPX 30 D C A Yes 2 Heptyl acetate HPE 34 D E A Yes 1	Gasolines: Casinghead (natural)	GCS	33	D	A/C		Α	Yes	1		
Glycerine GCR 20 2 D E A Yes 1 Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanoic acid HEP 4 D E A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptene (all isomers) HPX 30 D C A Yes 2 Heptyl acetate HPE 34 D E A Yes 1	Gasolines: Polymer	GPL	33	D	A/C		Α	Yes	1		
Heptane (all isomers), see Alkanes (C6-C9) (all isomers) HMX 31 D C A Yes 1 Heptanoic acid HEP 4 D E A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptene (all isomers) HPX 30 D C A Yes 2 Heptyl acetate HPE 34 D E A Yes 1	Gasolines: Straight run	GSR	33	D	A/C		Α	Yes	1		
Heptanoic acid HEP 4 D E A Yes 1 Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptene (all isomers) HPX 30 D C A Yes 2 Heptyl acetate HPE 34 D E A Yes 1	Glycerine	GCR	20 ²	D	Ε		Α	Yes	1		
Heptanol (all isomers) HTX 20 D D/E A Yes 1 Heptene (all isomers) HPX 30 D C A Yes 2 Heptyl acetate HPE 34 D E A Yes 1	Heptane (all isomers), see Alkanes (C6-C9) (all isomers)	HMX	31	D	С		Α	Yes	1		
Heptene (all isomers) HPX 30 D C A Yes 2 Heptyl acetate HPE 34 D E A Yes 1	Heptanoic acid	HEP	4	D	Е		Α	Yes	1		
Heptyl acetate HPE 34 D E A Yes 1	Heptanol (all isomers)	HTX	20	D	D/E		Α	Yes	1		
	Heptene (all isomers)	HPX	30	D	С		Α	Yes	2		
	Heptyl acetate	HPE	34	D	Е		Α	Yes	1		
	Hexane (all isomers), see Alkanes (C6-C9)	HXS	31 ²	D	B/C		Α	Yes	1		



Serial #: C1-1300352 Dated: 07-Feb-13

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: HTCO 3098
Official #: 1246720

Shipyard: Trinity Marine Madisonville

Page 5 of 7 Hull #: 2210-1

Cargo Identification								Conditions of Carriage					
								Recovery					
Name Hexanoic acid	Chem Code HXO	Compat Group No 4	Sub Chapter D	Grade E	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			
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					
Kerosene	KRS	33	D	D		Α	Yes	1					
Methyl acetate	MTT	34	D	D		Α	Yes	1					
Methyl alcohol	MAL	20 ²	D	С		A	Yes	1					
Methylamyl acetate	MAC	34	D	D		Α	Yes	1					
Methylamyl alcohol	MAA	20		D		A	Yes	1					
Methyl amyl ketone	MAK	18	D	D		A	Yes	1					
	MBE	41 ²	D	С		A	Yes	1					
Methyl tert-butyl ether Methyl butyl ketone	MBK	18	D	С		A	Yes	1					
Methyl butyrate	MBU	34	D	С		A	Yes	1					
	MEK	18 ²	D	С		A	Yes	1					
Methyl ethyl ketone	MHK	18	D	D		A	Yes	1					
Methyl heptyl ketone		18 ²	D	С			Yes						
Methyl isobutyl ketone	MIK			E		Α		1					
Methyl naphthalene (molten)	MNA	32	D			Α .	Yes	1					
Mineral spirits	MNS	33	D	D		A	Yes	1					
Myrcene	MRE	30	D	D		A	Yes	1					
Naphtha: Heavy	NAG	33	D	#		A	Yes	1					
Naphtha: Petroleum	PTN	33	D	#		A	Yes	1					
Naphtha: Solvent	NSV	33	D	D		A	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	Е		Α	Yes	1					
Nonyl phenol poly(4+)ethoxylates	NPE	40	D	Е		Α	Yes	1					
Octane (all isomers), see Alkanes (C6-C9)	OAX	31	D	С		Α	Yes	1					
Octanoic acid (all isomers)	OAY	4	D	Е		Α	Yes	1					
Octanol (all isomers)	OCX	20 ²	D	Е		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	Е		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	Е		Α	Yes	1					
Oil, misc: Residual	ORL	33	D	E		Α	Yes	1					
Oil, misc: Turbine	ОТВ	33	D	E		Α	Yes	1					
Pentane (all isomers)	PTY	31	D	Α		Α	Yes	5					



rial #: C1-1300352 ated: 07-Feb-13

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: HTCO 3098

Shipyard: Trinity Marine

Madisonville

Cargo Identificat	ion					Conditions of Carriage					
								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	
Pentene (all isomers)	PTX	30	D	Α	,,,,,	A	Yes	5	Tro Ponoral and Mario of	. I GIRKI	
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	E		Α	Yes	1			
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate	PAF	34	D	Е		Α	Yes	1			
Polybutene	PLB	30	D	Е		Α	Yes	1			
Polypropylene glycol	PGC	40	D	Е		Α	Yes	1			
iso-Propyl acetate	IAC	34	D	С		Α	Yes	1			
n-Propyl acetate	PAT	34	D	С		Α	Yes	1			
iso-Propyl alcohol	IPA	20 ²	D	С		Α	Yes	1			
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	Е		Α	Yes	1			
Propylene glycol methyl ether acetate	PGN	34	D	D		Α	Yes	1			
Propylene tetramer	PTT	30	D	D		Α	Yes	1			
Sulfolane	SFL	39	D	Е		Α	Yes	1			
Tetraethylene glycol	TTG	40	D	Е		Α	Yes	1			
Tetrahydronaphthalene	THN	32	D	Е		Α	Yes	1			
Toluene	TOL	32	D	С		Α	Yes	1			
Tricresyl phosphate (less than 1% of the ortho isomer)	TCP	34	D	Е		Α	Yes	1			
Triethylbenzene	TEB	32	D	Е		Α	Yes	1			
Triethylene glycol	TEG	40	D	Е		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	Е		Α	Yes	1			
Undecene	UDC	30	D	D/E		Α	Yes	1			
1-Undecyl alcohol	UND	20	D	Е		Α	Yes	1			
Xylenes (ortho-, meta-, para-)	XLX	32	D	D		Α	Yes	1			



Serial #: C1-1300352 Dated: 07-Feb-13

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: HTCO 3098 Shipyard: Trinity Marine

Hull #: 2210-1 Official #: 1246720

Explanation of terms & symbols used in the Table:

Cargo Identification

Chem Code

Compatability Group No

Note 1

Note 2

Subchapter Subchapter D

Subchapter O

Grade

ABC D, E Note 4

Hull Type

NA

The proper shipping name as listed in 46 CFR Table 30.25-1, 46 CFR Table 151.05, and 46 CFR Part 153 Table 2.

The three letter designation assigned to the cargo in the Chemical Hazards Response Information System (CHRIS) Manual.

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

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

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

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

The subchapter in Title 46 Code of Federal Regulations under which the cargo has been classified. Those flammable and combustible liquids listed in 46 CFR Table 30.25-1

Those hazardous cargoes listed in 46 CFR Table 151.05 and 46 CFR Part 153 Table 2

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

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

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.

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 Recovery 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 155.750, 33 CFR 156.120, 33 CFR 156.170, 46 CFR 35.35 and 46 CFR 39. The cargo tank venting system calculations (46 CFR 39.20-11) and the pressure drop calculations (46 CFR 39.30-1(b)) must use appropriate friction factors, vapor densities and vapor growth rates.

Category 2

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

Category 3

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

Category 4

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

Category 5

(High vapor pressure) VCS pressure drop calculations for cargoes with a vapor pressure greater than 14.7 psia at 115 F must take into account increased vapor-air mixture densities and vapor growth rates as compared to Category 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

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