

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

Certification Date: 09 Sep 2024 Expiration Date: 09 Sep 2029

## 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.

	l Name Official Number		IMO Numi	ber	Call Sign	Service	Service			
FMT 3298	1294	599				Tank	Barge			
					100000		A STATE OF THE STA			
NEW ORLEANS, LA		Hull Material Steel	Horse	epower	Propulsion					
UNITED STATES										
Place Built	Deli	very Date	Keel Laid Date	Gross Tons	Net Tons	DWT	Length			
ASHLAND CITY, TN		Jul2019	14Jun2019	R-1619  -	R-1619 J-	894	R-297.5			
3838 N CAUSEWAY BL' METAIRIE, LA 70002	VD SUITE 3335		2360 MAN	INDUSTRII 5TH ST DEVILLE, L ED STATE	A 70471					
MP 2023 LLC 3838 N CAUSEWAY BL' METAIRIE, LA 70002 UNITED STATES This vessel must be mani	ned with the following	ı licensed en, 0 HSC	FMT 2360 MAN UNIT	INDUSTRII 5TH ST DEVILLE, L ED STATE	A 70471 S	which there r	nust be			
MP 2023 LLC 3838 N CAUSEWAY BL' METAIRIE, LA 70002 UNITED STATES  This vessel must be man	ned with the following	en, 0 HSC	FMT 2360 MAN UNIT	INDUSTRII 5TH ST DEVILLE, L ED STATE Dersonnel	A 70471 S	which there r	nust be			
MP 2023 LLC 3838 N CAUSEWAY BL' METAIRIE, LA 70002 UNITED STATES This vessel must be man 0 Certified Lifeboatmen, (	ned with the following Certified Tankerme	en, 0 HSC 0 Chief	FMT 2360 MAN UNIT and unlicensed Type Rating, a	INDUSTRII 5TH ST DEVILLE, L ED STATE d Personnel and 0 GMD:	A 70471 S Included in SS Operators	which there r	nust be			
MP 2023 LLC 3838 N CAUSEWAY BLY METAIRIE, LA 70002 UNITED STATES  This vessel must be mane 0 Certified Lifeboatmen, 0 0 Masters	ned with the following O Certified Tankerme 0 Licensec Mates	o Chief 0 First	FMT 2360 MAN UNIT and unlicensed Type Rating, a	INDUSTRII 5TH ST DEVILLE, I ED STATE d Personnel and 0 GMD: 0 0	A 70471 S Included in SS Operators	which there r	nust be			
MP 2023 LLC 3838 N CAUSEWAY BLY METAIRIE, LA 70002 UNITED STATES  This vessel must be man 0 Certified Lifeboatmen, 0 0 Masters 0 Chief Mates 0 Second Mates 0 Third Mates	ned with the following O Certified Tankerme O Licensec Mates O First Class Pilots	0 Chief 0 First 0 0 Secon	FMT 2360 MAN UNIT and unlicensed Type Rating, a Engineers Assistant Engineer	INDUSTRII 5TH ST DEVILLE, I ED STATE  d Personnel and 0 GMD  0 0 rs neers	A 70471 S Included in SS Operators	which there r	nust be			
MP 2023 LLC 3838 N CAUSEWAY BLY METAIRIE, LA 70002 UNITED STATES  This vessel must be mand 0 Certified Lifeboatmen, 0 0 Masters 0 Chief Mates 0 Second Mates	ned with the following O Certified Tankerme O Licensec Mates O First Class Pilots O Radio Officers	0 Chief 0 First 0 0 Secon 0 Third	FMT 2360 MAN UNIT  and unlicensed Type Rating, a Engineers Assistant Engineer nd Assistant Engineer	INDUSTRII 5TH ST DEVILLE, I ED STATE  d Personnel and 0 GMD  0 0 rs neers	A 70471 S Included in SS Operators	which there r	nust be			
MP 2023 LLC 3838 N CAUSEWAY BLY METAIRIE, LA 70002 UNITED STATES  This vessel must be man 0 Certified Lifeboatmen, 0 0 Masters 0 Chief Mates 0 Second Mates 0 Third Mates	ned with the following O Certified Tankerme O Licensec Mates O First Class Pilots O Radio Officers O Able Seamen O Ordinary Seamen	0 Chief 0 First A 0 Secon 0 Third 0 Licen 0 Qualit	FMT 2360 MAN UNIT  and unlicensed Type Rating, a Engineers Assistant Engineer Assistant Engineer sed Engineers fied Member Engir	INDUSTRII 5TH ST DEVILLE, I TED STATE  DEVILLE, I DEVIL	A 70471 S . Included in SS Operators ilers					

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

This vessel has been granted a fresh water service examination interval per 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 Coast Guard District's Tank Barge Streamlined Inspection Program

### \*\*\*SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION\*\*\*

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

	Annual/Perio	dic/Re-Inspe	ction	This certificate issued by:
Date	Zone	A/P/R	Signature	This certificate issued by: Fat Woodman  L. L. WOODMAN, CDR, USCG, By direction
				Officer in Charge, Marine Inspection  Marine Safety Unit Port Arthur
	NEW YOR			Inspection Zone
	CONTRACTOR AND AND ADDRESS.			



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

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## Certificate of Inspection

Vessel Name: FMT 3298

(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 Sector New Orleans.

#### ---Hull Exams---

Exam Type

**Next Exam** 

Last Exam

Prior Exam

DryDock

31Jul2029

29Jul2019

Internal Structure

30Sep2029

09Sep2024

29Jul2019

### --- 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

(gal)

28966

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/g
1 P/S	861	13.58
2 P/S	874	13.58
3 P/S	754	13.58

SLOP P/S

#### \*Loading Constraints - Stability\*

Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Description
II	3910	10ft 3in	13.58	R, LBS
10	4740	11ft 11in	13.58	R, LBS

### \*Conditions Of Carriage\*

Only those specified hazardous cargoes named in the vessel's Cargo Authority Attachment (CAA), Serial # C1-2003055, dated 09Sep2020, 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 # C1-1902062 dated June 26 2019, and found acceptable for 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 1.5 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 psi.

Per 46 CFR 39.1017 and 39.5000(e), this vessel's VCS has been evaluated and approved for multi-breasted tandem loading



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

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with other vessels specifically approved to tandem load with this vessel.

\*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 8.74 lbs/gal. Cargoes with higher densities, up to 13.58 lbs/gal, may be carried as slack loads, but shall not exceed the tank weight limits as listed above.

### --- Inspection Status ---

\*Fuel Tanks\*

Internal Examinations

Tank ID Previous Last Next
AFT - 29Jul2019 -

### \*Cargo Tanks\*

	Internal Exam			External Exa	m	
Tank ld	Previous	Last	Next	Previous	Last	Next
1 P/S		29Jul2019	31Jul2029			
2 P/S	-	29Jul2019	31Jul2029	-	*	
3 P/S		29Jul2019	31Jul2029			
SLOP P/S		29Jul2019	31Jul2029			-
			Hydro Test			
Tank Id	Safety Valves	3	Previous	Last	Next	
1 P/S				29Jul2019	3	
2 P/S	- i			29Jul2019		
3 P/S	2 700			29Jul2019		
SLOP P/S	- HAE			29Jul2019	411	

### ---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\*\*\*



Dated:

C1-2003055 09-Sep-20

# Certificate of Inspection

Cargo Authority Attachment

Vessel Name: FMT 3298 Official #: 1294599

Shipyard: Arcosa Ashland City

Hull #: 5411

Tank Group Information	ormation Cargo Identification Tanks Cargo Environmenta Cargo Cargo Control			Fire	Special Requirements												
Trik Grp Tanks in Group	Density	Press.	Temp.	Hull Typ	Sea	Туре	Vent	Gauge	Pipe Class	Cont	Tanks	nks Space	Protection Provided	General	Materials of Construction		Tem
A ALL	13.6	Almos.	Amb.	11	1ii 2ii	Integral Gravity	PV	Closed	11	G-1	NR	NA	Portable	.50-60, .50-70(a), .50-70(b), .50-73, .50-81(a), .50- 81(b),	55-1(b), (c), (e), (f), (j), 56-1(a), (b), (c), (d), (e), (f), (g),	NR	No

- Notes: 1. Under Environmental Control, Tanks, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo tanks,
  - 2. Under Environmental Control, Handling Space, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo handling space. NA means that the vessel does not have a cargo control space, and this requirement is not applied.
  - 3. Under Electrical Hazard Class, NA means that the tank group is suitable only for those cargoes which have no electrical hazard class requirement. NR means that the vessel has no electrical equipment located in a hazardous location.

**List of Authorized Cargoes** 

Cargo Identification	Cargo Identification									Conditions of Carriage					
Name	Chem	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period					
Authorized Subchapter O Cargoes															
Olefins (C13+, all isomers)	OFZ	30	D/O	E	111	Α	Yes	1		G					
Acetonitrile	ATN	37	0	С	111	A	Yes	3	No	G					
Acrylonitrile	ACN	15 2	0	С	1	A	No	N/A	50-70(a), .55-1(e)	G					
Adiponitrile	ADN	37	0	E	- 11	A	Yes	1	No No	G					
Alkyl (C7-C9) nitrates	AKN	34 2	0	NA	111	A	No	N/A	.50-81, 50-86	G					
Aminoethyl ethanolamine	AEE	8	0	E	101	A	Yes	1 1	55-1(b)	G					
Ammonium bisulfite solution (70% or less)	ABX	43 2	0	NA	111	A	No	N/A	50-73, 56-1(a), (b), (c)						
Ammonium hydroxide (28% or less NH3)	AMH	6	0	NA	101	A	No			G					
Anthracene oil (Coal tar fraction)	AHO	33	0	NA	II.	A		N/A	.56-1(a), (b), (c), (f), (g)	G					
Benzene	BNZ	32	0	C	III	_	No	N/A	50-60	G					
Benzene or hydrocarbon mixtures (having 10% Benzene or more)	BHB	32 2	0	С	111	A	Yes	1		G					
Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more)	ВНА	32 2	0	С	III	A	Yes	1	.50-60 .50-60, .56-1(b), (d), (f), (g)	G G					
Benzene, Toluene, Xylene mixtures (10% Benzene or more)	втх	32	0	B/C	Ш	Λ	Vas		.50-60						
Butyl acrylate (all isomers)	BAR	14	0	D	111	A	Yes	1	· ·	G					
Butyl methacrylate	BMH	14	0	D	111	A	No	N/A	.50-70(a), 50-81(a), (b)	G					
Butyraldehyde (all isomers)	BAE	19	0	С	111	_	No	N/A	.50-70(a), .50-81(a), (b)	G					
Camphor oil (light)	CPO	18	0	D	11	A	Yes	1	55-1(h)	G					
Carbon tetrachloride	CBT	36	0	NA	10	A	No	N/A	No	G					
Caustic potash solution	CPS	52				A	Yes	3		G					
Caustic soda solution	CSS	52	0	NA	111	A	No	N/A	.50-73, .55-1(j)	G					
Chlorobenzene	CRB		_	NA	III	A	No	N/A	.50-73, .55-1(j)	G					
Chloroform	CRF	36 36	0	D	III	A	Yes	1	No	G					
Coal tar naphtha solvent			0	NA	111	A	Yes	3	No	G					
Creosote	NCT	33	0	D	Ш	Α	Yes	1	.50-73	G					
Cresols (all isomers)	CCW	21 2	0	E	111	Α	Yes	1	No	G					
Cresylate spent caustic	CRS	21	0	Е	Ш	Α	Yes	- 1	No	G					
Cresylic acid tar	CSC	5	0	NA	Ш	Α	No	N/A	.50-73, .55-1(b)	G					
Crotonaldehyde	CRX	21	0	E	111	Α	Yes	1	.55-1(l)	G					
	CTA	19 2	0	С	11	Α	No	N/A	.55-1(h)	G					
Crude hydrocarbon feedstock (containing Butyralde hydes and Ethylpropyl acrolein)	CHG	19 <sup>2</sup>	0	С	10	Α	Yes	1	No	G					
Cyclohexanone	CCH	18	0	D	JII	Α	Yes	1	.56-1(a), (b)	G					
Cyclohexanone, Cyclohexanol mixture	CYX	18 <sup>2</sup>	0	E	Ш	Α	Yes	1	.56-1 (b)	G					
Cyclohexylamine	CHA	7	0	D	111	Α	Yes	1	.56-1(a), (b), (c), (g)	G					



Serial #: C1-2 Dated: 09-

09-Sep-20

# Certificate of Inspection

Cargo Authority Attachment

Vessel Name: FMT 3298

Official #: 1294599

Page 2 of 9

Shipyard: Arcosa Ashland City

Cargo Identification	Conditions of Carriage									
Nome	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	Recovery VCS Calegory	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period
Name	Code	NO	Onapter		1,400	Огоар	(1 0114)	Oategory	Consudential	Fellou
Cyclopentadiene, Styrene, Benzene mixture	CSB	30	0	D	HI	Α	Yes	1	50-60, .56-1(b)	G
iso-Decyl acrylate	IAI	14	0	E	III	Α	No	N/A	.50-70(a), .50-81(a), (b), .55-1(c)	G
Dichlorobenzene (all isomers)	DBX	36	0	Е	III	Α	Yes	3	.56-1(a), (b)	G
1,1-Dichloroethane	DCH	36	0	С	III	Α	Yes	1	No	G
2,2'-Dichloroethyl ether	DEE	41	0	D	U	Α	Yes	1	.55-1(f)	G
Dichloromethane	DCM	36	0	NA	111	Α	Yes	5	No	G
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	DDE	43	0	E	101	Α	No	N/A	.56-1(a), (b), (c), (g)	G
2,4-Dichlorophenoxyacetic acid, direthylamine salt solution	DAD	0	_	A	111	Α	No	N/A		G
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	DTI	43		E	111	Α	No	N/A		G
	DPB	36	0	C	111	A	Yes		No	G
1,1-Dichloropropane	DPP	36	0	С	111	A	Yes		No	G
1,2-Dichloropropane	DPC	36	0	C	III	A	Yes		No	G
1,3-Dichloropropane	DPU	15	0	D	11	A	No	N/A		G
1,3-Dichloropropene	DMX		0	C	1	A	Yes		No	G
Dichloropropene, Dichloropropane mixtures	DEA	8	0	E	,, III	A	Yes		.55-1(c)	G
Diethanolamine		_	0	C	111	A	Yes		.55-1(c)	G
Diethylamine	DEN	7		E	101	A			55-1(c)	G
Diethylenetriamine	DET			-			Yes	_	.55-1(c)	G
Diisobutylamine	DBU	7	0	D	111	A	Yes		.55-1(c)	G
Diisopropanolamine	DIP	8	0	E	111	A	Yes		.55-1(c)	G
Diisopropylamine	DIA	7	0	С	- 11	A	Yes		.56-1(b)	G
N,N-Dimethylacetamide	DAC	-	0	E	III	A	Yes			
Dimethylethanolamine	DMB		0	D	111	A	Yes		.56-1(b), (c)	G
Dimethylformamide	DMF		0	D	10	Α	Yes		.55-1(e)	G
Di-n-propylamine Di-n-propylamine	DNA		0	С	- 11	Α	Yes		.55-1(c)	G
Dodecyldimethylamine, Tetradecyldimethylamine mixture	DOT	7	0	E	111	Α	No	N/A		G
Dodecyl diphenyl ether disulfonate solution	DOS	-	0	#		Α	No	N/A		G
EE Glycol Ether Mixture	EEG		0	D	- 111	Α	No	N/A		G
Ethanolamine	MEA	. 8	0	E	UI	Α	Yes		.55-1(c)	G
Ethyl acrylate	EAC	14	0	С	111	Α	No	N/A		G
Ethylamine solutions (72% or less)	EAN	7	0	Α	II.	Α	Yes	6	.56-1(b)	G
N-Ethylbutylamine	EBA	7	0	D	Ш	Α	Yes	3	.55-1(b)	G
N-Ethylcyclohexylamine	ECC	7	0	D	111	Α	Yes	1	.55-1(b)	G
Ethylene cyanohydrin	ETC	20	0	E	- 111	Α	Yes	1	No	G
Ethylenediamine	EDA	7	2 0	D	III	Α	Yes	1	.55-1(c)	G
Ethylene dichloride	EDC	36	2 0	С	Ш	Α	Yes	1	No	G
Ethylene glycol hexyl ether	EGH	40	0	Е	III	Α	No	N/A	No	G
Ethylene glycol monoalkyl ethers	EGC	40	0	D/E	- 111	Α	Yes	1	No	G
Ethylene glycol propyl ether	EGP	40	0	Е	111	Α	Yes	11	No	G
2-Ethylhexyl acrylate	EAI	14	0	E	- 111	Α	No	N/A	.50-70(a), .50-81(a), (b)	G
Ethyl methacrylate	ETM	14	0	D/E	Ш	Α	No	N/A	.50-70(a)	G
2-Ethyl-3-propylacrolein	EPA		2 0	Ε	111	Α	Yes	1	No	G
Formaldehyde solution (37% to 50%)	FMS			D/E	III	Α	Yes		.55-1(h)	G
Furfural	FFA	19	0	D	111	Α	Yes	1	.55-1(h)	G
Glutaraldehyde solutions (50% or less)	GTA		0	NA	III	Α	No	N/A	No	G
Hexamethylenediamine solution	НМС		0	E	111	A	Yes		.55-1(c)	G



C1-2003055

09-Sep-20

# Certificate of Inspection

Cargo Authority Attachment

Vessel Name: FMT 3298

Triethylamine

Triethylenetetramine

Shipyard: Arcosa Ashland City

.55-1(e)

.55-1(b)

Official #: 1294599			Page 3	of 9		W.		11/	Hull #: 5411			
Cargo Identification		Tely,		J J ji			Conditions of Carriage					
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	Recovery VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Perio		
Hexamethyleneimine	нмі	7	0	С	u	Α	Yes	1	.58-1(b), (c)	G		
Isoprene	IPR	30	0	Α	III	A	No	N/A	50-70(a), 50-81(a), (b)	G		
Isoprene, Pentadiene mixture	IPN	30	0	В	III	A	No	N/A	.50-70(a), .55-1(c)	G		
Kraft pulping liquors (free alkali content 3% or more)(including: Black, Green, or White liquor)	KPL	5	0	NA	III	Α	No	N/A	.50-73, 56-1(a), (c), (g)	G		
Mesityl oxide	MSO	18 2	0	D	m	Α	Yes	1	No	G		
Methyl acrylate	MAM	14	0	С	III	Α	No	N/A	50-70(a), 50-81(a), (b)	G		
Methylcyclopentadiene dimer	MCK	30	0	С	111	Α	Yes	1	No	G		
Methyl diethanolamine	MDE	8	0	Е	111	Α	Yes	1	56-1(b), (c)	G		
2-Methyl-5-ethyl pyridine	MEP	9	0	E	111	Α	Yes	1	55-1(e)	G		
Methyl methacrylate	MMM	14	0	С	101	A	No	N/A	.50-70(a), 50-81(a), (b)	G		
2-Methylpyridine	MPR	9	0	D	111	A	Yes	3	55-1(c)	G		
alpha-Methylstyrene	MSR	30	0	D	111	Α	No	N/A	50-70(a), 50-81(a), (b)	G		
Morpholine	MPL	72	0	D	III	A	Yes	1	55-1(c)	G		
Nitroethane	NTE	42	0	D	- iii	A	No	N/A	50-81, 56-1(b)	G		
1- or 2-Nitropropane	NPM	42	0	D	111	A	Yes	1	50-81	G		
1,3-Pentadiene	PDE	30	0	A	111				.50-70(a), .50-81			
Perchloroethylene	PER	36	0	NA		Α Α	No	N/A	No	G		
Polyethylene polyamines	PEB	72	0	E	111	A	No	N/A 1	55-1(e)	G		
Potassium chloride solution (brine)	PCSB		0	NA	101	A	Yes		30-1(e)	G		
iso-Propanolamine	MPA	8	0	E	2011		No	N/A	55-1(c)	G		
Propanolamine (iso-, n-)	PAX	8	0	Ē	181	Α	Yes	1		G		
Isopropylamine	IPP	7	0	A	100	Α .	Yes	10.1	.56-1(b), (c)	G		
Pyridine	PRD	9			II I	Α	Yes	5	.55-1(c)	G		
Pyrolysis Gasoline (containing benzene)	PYG		0	С	UI.	A	Yes	1	.55-1(e)	G		
Sodium acetate, Glycol, Water mixture (3% or more Sodium Hydroxide)	SAP	32 5	0	С	111	A	No No	N/A N/A	50-73, 55-1(j)	G		
Sodium aluminate solution (45% or less)	SAU	5		NIA	101		100		E0.70 C0.4/ \ // \ / \	167		
Sodium chlorate solution (50% or less)	SDD	0 1,2	0	NA	111	A	No	N/A	50-73, 56-1(a), (b), (c)	G		
Sodium hypochlorite solution (20% or less)		_		NA	_	A	No	N/A	.50-73	G		
Sodium sulfide, hydrosulfide solution (H2S 15 ppm or less)	SHQ	5	0	NA		A	No	N/A	50-73, 56-1(a), (b)	G		
Sodium sulfide, hydrosulfide solution (H2S greater han 15 ppm but less than 200 ppm)	SSI	0 1,2		NA NA	111	A	Yes No	N/A	50-73, 55-1(b) 50-73, 55-1(b)	G		
Sodium sulfide, hydrosulfide solution (H2S greater than 200 ppm)	SSJ	0 1,2	0	NA	П	^	NI-	ALLA	.50-73, .55-1(b)	G		
Styrene monomer	STY	30	0	D	111	A	No	N/A	50-70(a), .50-81(a), (b)	G		
1,1,2,2-Tetrachloroethane	TEC	36	0	NA NA	III	A	No	N/A N/A	No	G		
Tetraethylene pentamine	TTP	7	0	E	1000	-	No					
Tetrahydrofuran	THE	41	0	C	_ 111 111	A	Yes	1	.55-1(c) .50-70(b)	G G		
1,2,4-Trichlorobenzene	TCB	36	0	E	111			1	No No			
1,1,1-Trichloroethane	TCE	36 <sup>2</sup>	03			A	Yes	1	50-73, 56-1(a)	G		
1,1,2-Trichloroethane	TCM	36	-	-	e ()	Α	No	N/A		G		
Trichloroethylene	TCL	-	0	NA	111	A	Yes	1	.50-73, 56-1(a)	G		
1,2,3-Trichloropropane		36 <sup>2</sup>	0	NA	111	A	Yes	1	No South	G		
Triethanolamine	TCN	36	0	E	II	Α	Yes	3	50-73, 56-1(a)	G		
THEMANUALINE	TEA	8 <sup>2</sup>	0	E	111	Α	Yes	1	55-1(b)	G		

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

Serial #: C1-2003055 Dated:

09-Sep-20

# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: FMT 3298 Official #: 1294599

Page 4 of 9

Shipyard: Arcosa Ashland City

Cargo Identification	n	10.0		5.00	38	Conditions of Carriage					
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor R	ecovery VCS	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period	
Triphenylborane (10% or less), caustic soda solutio∎	TPB	5	0	NA	111	Α	No	N/A	.56-1(a), (b), (c)	G	
Trisodium phosphate solution	TSP	5	0	NA	101	Α	No	N/A	50-73, 56-1(a), (c)	G	
Urea, Ammonium nitrate solution (containing more than 2% NH3)	UAS	6	0	NA	111	Α	No	N/A	56-1(b)	G	
Vanillin black liquor (free alkali content, 3% or more.	VBL	5	0	NA	- 10	Α	No	N/A	50-73, 56-1(a), (c), (g)	G	
Vinyl acetate	VAM	13	0	С	- 111	Α	No	N/A	50-70(a), 50-81(a), (b)	G	
Vinyl neodecanoate	VND	13	0	Е	101	Α	No	N/A	50-70(a), 50-81(a), (b)	G	
Vinyltoluene	VNT	13	0	D	101	Α	No	N/A	50-70(a), ,50-81, ,56-1(a), (b), (c), (	G	
Subchapter D Cargoes Authorized for Vapor Contro	ol		A PAIR				W. I'E			į heyn	
Acetone	ACT	18 <sup>2</sup>	D	С		Α	Yes	. 1			
Acetophenone	ACP	18	D	E	6.2	Α	Yes	1		G X III	
Alcohol (C12-C16) poly(20+) ethoxylates	APW	20	D	E		Α	Yes	1			
Alcohol (C6-C17) (secondary) poly(3-6) ethoxylates	AEA	20	D	E		Α	Yes	1		85.5	
Alcohol (C6-C17) (secondary) poly(7-12) ethoxylates	AEB	20	D	E		Α	Yes	1		7.1110	
Amyl acetate (all isomers)	AEC	34	D	D	Tal	Α	Yes	1			
Amyl alcohol (iso-, n-, sec-, primary)	AAI	20	D	D	q i	A	Yes	1		1500	
	100	Who will		100	1		VOLUME I	DO PL			
Benzyl acetate	BZE	34	D	E		<u>A</u>	Yes	1 9			
Benzyl alcohol	BAL	21	D	E		Α	Yes	1			
Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters)	BFY	20	D	E		Α	Yes	1			
Butyl acetate (all isomers)	BAX	34	D	D		Α	Yes	1			
Isobutyl alcohol	IAL	20 <sup>2</sup>	D	D	The	Α	Yes	1			
Butyl alcohol (n-)	BAN	20 2	27/10/	D		Α	Yes	1			
Butyl alcohol (sec-)	BAS	20 2		C		A	Yes	1			
Butyl alcohol (tert-)	BAT	20 2	90 -	С	ATR S	A	Yes	1		O. I	
Butyl benzyl phthalate	ВРН	34	D	E		A	Yes	1			
Butyl toluene			190100	0,000	555	-					
	BUE	32	D	D	-	Α .	Yes	1			
Caprolactam solutions	CLS	22	D	E		Α .	Yes	1			
Cycloheptane	CYE	31	D	С		A	Yes	1			
Cyclohexane	CHX	31	D	С		Α	Yes	1			
Cyclohexanol	CHN	20	D	E		Α	Yes	1			
Cyclohexyl acetate	CYC	34	D	D	D.	Α	Yes	1			
Cyclopentane	CYP	31	D	В		Α	Yes	1 1		THE	
p-Cymene p-Cymene	CMP	32	D	D		Α	Yes	1		15 (5)	
iso-Decaldehyde	IDA	19	D	E		Α	Yes	1		100	
n-Decaldehyde	DAL	19	D	E	No.	Α	Yes	1		THE .	
Decanoic acid	DCO		D	#	100	A	Yes	1		iles i	
Decene	DCE		D	<i>p</i>			CITY OF	STILL BUY			
Decyl alcohol (all isomers)			Contract of			A	Yes	1			
Decyl alconol (all isoliters)	DAX	20 2	D	Е		Α	Yes	1		H. Pr.	



Serial #: C1-2003055 Dated: 09-Sep-20

# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: FMT 3298 Official #: 1294599

Page 5 of 9

Shipyard: Arcosa Ashland City

Cargo Iden	Cargo Identification									Conditions of Carriage					
Name	Chem	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	Recovery VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period					
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	D	Е		Α	Yes	1							
Diacetone alcohol	DAA	20 <sup>2</sup>	D	D		Α	Yes	1							
Dibutyl phthalate	DPA	34	D	Е		Α	Yes	1							
Diethylbenzene	DEB	32	D	D		Α	Yes	1							
Diethylene glycol	DEG	40 2	D	Е		Α	Yes	1	Carlotte I have						
Diisobutylene	DBL	30	D	С		Α	Yes	1							
Diisobutyl ketone	DIK	18	D	D		Α	Yes	1	VY STATES						
Diisopropylbenzene (all isomers)	DIX	32	D	Е		Α	Yes	1							
Dimethyl phthalate	DTL	34	D	Е		Α	Yes	1							
Dioctyl phthalate	DOP	34	D	E	-	A	Yes	1	1.0						
Dipentene	DPN	30	D	D	JIN S	Α	Yes	1							
Diphenyl	DIL	32	D	D/E		A	Yes	1							
Diphenyl, Diphenyl ether mixtures	DDO	33	D	Е	, 1	Α	Yes	1		_					
Diphenyl ether	DPE	41	D	{E}		Α	Yes	1							
Dipropylene glycol	DPG	. 40	D	Е		Α	Yes	1							
Distillates: Flashed feed stocks	DFF	33	D	Е	VA. 1	Α	Yes	1							
Distillates: Straight run	DSR	33	, D	Е		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	4	A	Yes	1							
Ethoxy triglycol (crude)	ETG	40	D	E		A	Yes	1							
Ethyl acetate	ETA	34	D	С		A	Yes	1		-					
Ethyl acetoacetate	EAA	34	D	E		A	Yes	1							
Ethyl alcohol	EAL	20 2	D	c	257	A	Yes	1		-					
Ethylbenzene	ETB	32	D	С	- 12	A	Yes	1							
Ethyl butanol	EBT	20	D	D		A	Yes	1	76						
Ethyl tert-butyl ether	EBE	41	D	С		Α	Yes	1		-					
Ethyl butyrate	EBR	34	D	D		Α	Yes	1							
Ethyl cyclohexane	ECY	31	D	D	ov.	A	Yes	1							
Ethylene glycol	EGL	20 2	D	E		A	Yes	1	100						
Ethylene glycol butyl ether acetate	EMA	34	D	E	101	A	Yes	707 E							
Ethylene glycol diacetate	EGY	34	D	E		A	Yes	1							
Ethylene glycol phenyl ether	EPE	40	D	E				1							
Ethyl-3-ethoxypropionate	EEP	34	D	D	- 1	Α Δ	Yes			A					
2-Ethylhexanol	EHX	20	D	E	1012	A	Yes	1							
Ethyl propionate	EPR	34	D	C	N T	A	Yes	1							
Ethyl toluerie	ETE	32	D	D	SV 1	A	Yes	1							
Formamide	FAM	10	D	E		A	Yes	1							



st Guard

# Certificate of Inspection

Cargo Authority Attachment

Vessel Name: FMT 3298

Official #: 1294599

Page 6 of 9

Shipyard: Arcosa Ashland City

Serial #:

C1-2003055

09-Sep-20

Cargo Identificat	Cargo Identification								Conditions of Carriage					
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd (Y or N)	Recovery VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period				
									<b>一种基础的</b>					
Furfuryl alcohol	FAL	20 <sup>2</sup>	D	E	4.1	Α	Yes	1	Same and the same and					
Gasoline blending stocks: Alkylates	GAK	33	D	A/C	48.7	Α	Yes	1		man.				
Gasoline blending stocks: Reformates	GRF	33	D	A/C		Α	Yes	1						
Gasolines: Automotive (containing not over 4.23 grams lead per g	gallon) GAT	33	D	С	W. D.Y	Α	Yes	1						
Gasolines: Aviation (containing not over 4.86 grams of lead per g	allon) GAV	33	D	С		Α	Yes	1						
Gasolines: Casinghead (natural)	GCS	33	D	A/C		Α	Yes	1		1100				
Gasolines: Polymer	GPL	33	D	A/C		Α	Yes	1		187				
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		Life				
n-Heptanoic acid	HEN	4	D	Е		Α	Yes	1						
Heptanol (all isomers)	HTX	20	D	D/E		Α	Yes	1_						
Heptyl acetate	HPE	34	D	E		Α	Yes	1		THE				
Hexane (all isomers), see Alkanes (C6-C9)	HXS	31 <sup>2</sup>	D	B/C		Α	Yes	1						
Hexanoic acid	нхо	4	D	E		Α	Yes	1						
Hexanol	HXN	20	D	D	N.	Α	Yes	1						
Hexylene glycol	HXG	20	D	Е		Α	Yes	1						
Isophorone	IPH	18 <sup>2</sup>	D	Е		Α	Yes	1_						
Jet fuel: JP-4	JPF	33	D	Е		Α	Yes	1						
Jet fuel: JP-5 (kerosene, heavy)	JPV	33	D	D		Α	Yes	1						
Kerosene	KRS	33	D	D		Α	Yes	1		1				
Lauric acid	LRA	34	D	#		Α	Yes	1		A-F				
Methyl acetate	МТТ	34	D	D		Α	Yes	1						
Methyl alcohol	MAL	20 <sup>2</sup>	D	С		Α	Yes	1						
Methylamyl acetate	MAC	34	D	D		Α	Yes	1						
Methylamyl alcohol	MAA	20	D	D	The second	Α	Yes	1		- 8				
Methyl amyl ketone	MAK	18	D	D	10%	Α	Yes	1						
Methyl tert-butyl ether	MBE	41 2	D	С		A	Yes	1						
Methyl butyl ketone	МВК	18	D	С		Α	Yes	1						
Methyl butyrate	MBU	34	D	С		Α	Yes	- 1						
Methylcyclohexane	MCY	31	D	С	5.0	Α	Yes	1						
Methyl ethyl ketone	MEK	18 <sup>2</sup>	D	С		Α	Yes	1	SELVIN DE NE LA LE	HE,				
Methyl formate	MFM	34	D	Α	1	Α	Yes	6						
Methyl heptyl ketone	МНК	18	D	D	003	Α	Yes	1	AND THE STATE OF THE STATE OF					
2-Methyl-2-hydroxy-3-butyne	МНВ	20	D	С		Α	Yes	1	Mark of					
Methyl isobutyl ketone	МІК	18 ²	D	С		Α	Yes	1						
Mineral spirits	MNS	33	D	D		Α	Yes	1						
Myrcene	MRE	30	D	D		А	Yes	1		V In				



Serial #: C1-2003055

09-Sep-20

# Certificate of Inspection

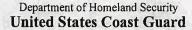
## Cargo Authority Attachment

Vessel Name: FMT 3298 Official #: 1294599

Page 7 of 9

Shipyard: Arcosa Ashland City

Name Naphtha: Heavy	Chem Code NAG PTN	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of	Insp.
Naphtha: Heavy	PTN	33						Category	Construction	Period
Naphtha: Heavy	PTN	33								
			D	#		Α	Yes	1		
Naphtha: Petroleum		33	D	#		Α	Yes	1		
Naphtha: Solvent	NSV	33	D	D		Α	Yes	1	Depte de la compansión	
Naphtha: Stoddard solvent	NSS	33	D	D		Α	Yes	1		7 5
Naphtha: Vamish makers and painters (75%)	NVM	33	D	С		A	Yes	1		
Neodecanoic acid	NEA	4	D	Е	1	Α	Yes	1	Y at F T T T T	
Nonane (all isomers), see Alkanes (C6-C9)	NAX	31	D	D		Α	Yes	1	CHILDRY TRU	
Nonyl alcohol (all isomers)	NNS	20 2	D	Е		Α	Yes	1		
Nonyl phenoi	NNP	21	D	Е	M L	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	С	A 3	Α	Yes	1	ST LIST HOLD IN	
Octanoic acid (all isomers)	OAY	4	D	E	Page 1	Α	Yes	1		
Octanol (all isomers)	осх	20 2	D	E		Α	Yes	1		
Oil, fuel: No. 2	OTW	33	D	D/E		Α	Yes	1		1 1 2
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. 6	osx	33	D	Е		Α	Yes	1		
Oil, misc: Crude	OIL	33	D	A/D		Α	Yes	1		
Oil, misc: Diesel	ODS	33	D	D/E		A	Yes	1		
Oil, misc: Gas, high pour	OGP	33	D	Е		Α	Yes	1		
Oil, misc: Lubricating	OLB	33	D	E		A	Yes			
Oil, misc: Residual	ORL	33	D	E		A	Yes	1	7	
Oil, misc: Turbine	ОТВ	33	D	E		A	Yes	1		
alpha-Olefins (C6-C18) mixtures	OAM	30	D	E		A	Yes	1		
Pentane (all isomers)	PTY	31	D	A		A	Yes	5		
Pentene (all isomers)	PTX	30	D	Α	77	A	Yes	5	Maria Transport	
n-Pentyl 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		
Polybutene	PLB	30	D	E		A	Yes	1	The sense of the s	
Polypropylene glycol	PGC	40	D	E		A	Yes	1		
Isopropyl acetate	IAC	34	D	С		A		1	7. 1 1 2	
n-Propyl acetate	PAT	34	D	С		A	Yes	1		
Isopropyl alcohol	IPA	20 23		С		A	Yes	1		
n-Propyl alcohol	PAL	20 2	D	С		A	Yes	1		
Propylbenzene (all isomers)	PBY	32	D	D		A	Yes	1		





Serial #: C1-2003055 Dated:

09-Sep-20

# Certificate of Inspection

Cargo Authority Attachment

Vessel Name: FMT 3298

Triethylbenzene

Triethylene glycol

Xylenes (ortho-, meta-, para-)

Shipyard: Arcosa Ashland City

Official #: 1294599	cial #: 1294599 Page 8 of 9						Hull #: 5411					
Cargo Identification						Conditions of Carriage						
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	App'd	Recovery VCS Category	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	Insp. Period		
				The state of						700		
Isopropylcyclohexane	IPX	31	D	D		А	Yes	1	THE PARTY			
Propylene glycol	PPG	20 2	D	Е	QX H	Α	Yes	1		DHOC :		
Propylene glycol methyl ether acetate	PGN	34	D	D	li ku	Α	Yes	1		Tier		
Propylene tetramer	PTT	30	D	D		Α	Yes	1				
Sulfolane	SFL	39	D	E	U.S.	Α	Yes	1		18		
Tetraethylene glycol	TTG	40	D	Е		Α	Yes	1		19		
Tetrahydronaphthalene	THN	32	D	Е		Α	Yes	1_	i salikuwa 177	STE		
Tetramethylbenzene (all isomers)	TTC	32	D	#		Α	Yes	1				
Toluene	TOL	32	D	С		Α	Yes	1		-11		
Tricresyl phosphate (containing less than 1% ortho isomer)	TCP	34	D	Е		Α	Yes	1				

Е

Α

Α

Yes

Yes

Yes

1

D

D E

D

32

TEB

TEG

XLX





Certificate of Inspection

Cargo Authority Attachment

Vessel Name: FMT 3298 Official #: 1294599

Page 9 of 9

Shipyard: Arcosa Ashlan

Serial #: C1-2003055

09-Sep-20

Dated:

Hull #: 5411

#### Explanation of terms & symbols used in the Table:

Cargo Identification

The propper 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 the barge is responsible for ensuring that the compatibility requirements of 46 CFR Part 150 are met. Cargoes must be checked for compatibility using the figures, tables, and appendices of 46 CFR 150 in conjunction with the assigned reactive group number.

Note 1

Because of the very high reactivity or unusual conditions of carriage or potential compatibility problems, this product is not assigned to a specific group in the Compatibility Chart. For additional compatibility information, contact Commandant (CG-3PSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. Telephone (202) 372-1425.

Note 2

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

Note 3

The subchapter in Title 45 Code of Federal Regulations under which the cargo has been classified.

Subchapter D Subchapter O

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

A, B, C D, E 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 procucts 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 procucts which require significant preventive measures to preclude the uncontrolled release of cargo. See 46 CFR 151.10-1(b)(3).

Designed to carry procucts 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

Approved (Y or N)

Tank Group Vapor Recovery

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 recuirements 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 39.2011) and the pressure drop calculations (46 CFR 39.3001) 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 ove pressurization. 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 39,2009. This requirement is in addition to the requirements of Category 1.

Category 4 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.

(Polymerizes and high y toxic) Must comply with requirements of Categories 1, 2 and 3.

none

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