THE PERIOD AND A CHARACTER PROPERTY

SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION ***SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION*** Vith this inspection for Certification having been completed at Port Arthur, TX, UNITED STATES, the Officer in Charge, Martine Safety Unit Port Arthur certified the vessel, in all respects, is in conformity with the applicable vessel inspection, Marine Safety Unit Port Arthur certified the vessel, in all respects, is in conformity with the applicable vessel inspectives and the rules and regulations prescribed thereunder. Annual/Periodic/Re-inspection Date Zone Xone Xignature You are the fully a first in the spection		Per ships on statem	Cert	Department of	tes of America Homeland Secu tes Coast Guard Of Ins to I SOLAS 74 as americad.	my Ex Pectío	rtification Data: piration Data: OPPL	09 Mar 2026
VICKSBURG, MS Not theme Interme Interme Presenter Steel Unified States Unified States Unified States Unified States Presenter CARUTHERSVILLE, MO Deferer free Martine State Martine States Not the states UNITED STATES Deferer free Come Not the states Not the states Not the states Owner CARUTHERSVILLE, MO United States Out of the states Not the states Not the states Owner CARUTHERSVILLE, MO United States Outers Not the states Not the states Owner Control NULAND MARINE LP States States Not the states Outers	Carlos and	9527		The support of the second	MO Namber	Gell Sign	C. C	18
CARUTHERSVILLE, MO Delivery Des feet Later Des Ones Tors Net Tors Derivery Anno UNITED STATES 10.Jul 1992 01.Jul 1992 01.Jul 1992 Not Tors Net Tors <	VICKSB	Le MIT		a state and state	Horsepower	and the state of the		
KIRBY INLAND MARINE LP 55 WAUGH DR STE 1000 HOUSTON, TX 77007 UNITED STATES KIRBY INLAND MARINE, LP 18350 Market Street Channehew, TX 77530 UNITED STATES This vessel must be manned with the following licensed and unlicensed Personnel. Included in which there must be 0 Certified Lifeboatmen, 0 Certified Tankermen, 0 HSC Type Rating, and 0 GMDSS Operators. OMasters 0 Learsed Mates 0 Chief Engineers 0 Others 0 Second Mates 0 First Class Pitots 0 Chief Engineers 0 Others 0 Mater First Class Pitots 0 Decidinary Seemen 0 Third Assistant Engineers 0 Others 0 Mater First Class Pitots 0 Decidinary Seemen 0 Chief Regineers 0 Others 0 Mater First Class Pitots 0 Decidinary Seemen 0 Chief Regineers 0 Other Persons in addition to crew, and no Others. Total Persons allowed: 0 Route Permitted And Conditions Of Operation: -Lakes, Bays, and Sounds	CARUTH	25 BELLING B		A CARLES AND A	0.744	R-705	DWT	R-200 0
0 Certified Lifeboatmen, 0 Certified Tankermen, 0 HSC Type Rating, and 0 GMDSS Operators. 0 Masters 0 Licensed Mates 0 Chief Engineers 0 Ollers 0 Second Mates 0 First Class Plots 0 First Assistant Engineers 0 Ollers 0 Mater 0 Addo Officers 0 Second Mates 0 Addo Seamen 0 Third Assistant Engineers 0 Mater First Class Plots 0 Ordinary Seamen 0 Licensed Engineers 0 Mater First Class Plots 0 Deckhands 0 Qualified Member Engineers 0 Mater First Class Plot 0 Ordinary Seamen 0 Licensed Engineers 0 Mater First Class Plots 0 Deckhands 0 Qualified Member Engineer In addition, this vessel may carry 8 Passengers, 0 Other Persons in crew, 0 Persons in addition to crew, and no Others. Total Persons allowed: 0 Route Permitted And Conditions Of Operation: —Lakes, Bays, and Sounds— This tank barge is participating in the Eighth 4 Ninth Coast Guard District's Tank Barge Streamlined Inspection (TAP). Inspection issues concerning this barge should be directed to OCHI Houston-Galveston. ***SEE NEXT PAGE FOR ADDITIONAL OERTIFICATE INFORMATION*** This tank barge for AdDit Port Anthur cartified the vessel, in all respects, is in conformity with the applicable vessel inspection. ****SEE NEXT PAGE FOR ADDITIONAL OERTIFICATE INFORMATION*** <td>KIRBY INL 55 WAUG HOUSTON</td> <td>H DR STE 1000 I, TX 77007</td> <td>P</td> <td>N REAL</td> <td>KIRBY INLAN 18350 Market Channelview,</td> <td>Street TX 77530</td> <td></td> <td></td>	KIRBY INL 55 WAUG HOUSTON	H DR STE 1000 I, TX 77007	P	N REAL	KIRBY INLAN 18350 Market Channelview,	Street TX 77530		
0 Chief Mates 0 First Class Plots 0 First Assistant Engineers 0 Second Mates 0 Radio Officers 0 Second Assistant Engineers 0 Third Mates 0 Able Seemen 0 Third Assistant Engineers 0 Mate First Class Plots 0 Ordinary Seamen 0 Loarned Engineers 0 Mate First Class Plots 0 Deckhands 0 Qualified Member Engineers n addition, this vessel may carry 0 Passengers, 0 Other Persons in crew, 0 Persons in addition to crew, and no Others. Total Persons allowed: 0 0 Route Permitted And Conditions Of Operation: Lakes, Bays, and Sounds his tank barge is participating in the Eighth 6 Ninth Coast Guard District's Tank Barge Streamlined Inspection regram (TBSP). Inspection activities aboard this barge shall be conducted in accordance with its Tank Barge ction plan (TAP). Inspection issues concerning this barge should be directed to OCHI Houston-Galveston. ***SEE NEXT PAGE FOR ADDITIONAL OERTIFICATE INFORMATION*** **** **** **** **** **** **** **** **** **** **** **** **** **** **** ****	0 Certified	Lifeboatmen, 0 C	ertified Tan	kermen, 0 HSC Type	e Rating, and 0 GM	IDSS Operator	which there mu s.	ist be
Persons allowed: 0 Route Permitted And Conditions Of Operation: Lakes, Bays, and Sounds This tank barge is participating in the Eighth & Ninth Coast Guard District's Tank Barge Streamlined Inspection regram (TBSIP). Inspection activities aboard this barge shall be conducted in accordance with its Tank Barge ction Plan (TAP). Inspection issues concerning this barge should be directed to OCMI Houston-Galveston. ****SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION*** //ith this inspection for Certification having been completed at Port Arthur, TX, UNITED STATES, the Officer in Charge, Marking poetion, Marine Safety Unit Port Arthur certified the vessel, in all respects, is in conformity with the applicable vessel inspection and the rules and regulations prescribed thereunder. Annual/Periodic/Re-Inspection Date Zone Zone AV//R Signature J.3. ANDEREW, CDR, USCG, By direction Date Zone Average Signature J.3. ANDEREW, CDR, USCG, By direction	0 Chief Ma 0 Second 0 Third Ma 0 Master F 0 Mate Fin	ates Mates ites irst Class Pilot st Class Pilots	0 First Class F 0 Radio Office 0 Able Seame 0 Ordinary Se 0 Decidiands	Nots 0 First Assist rs 0 Second Ass n 0 Third Assis amen 0 Licensed Er 0 Qualified M	ant Engineers kistant Engineers tant Engineers ngineers ember Engineer		n to crew, and n	o Others. Total
/ith this inspection for Certification having been completed at Port Arthur, TX, UNITED STATES, the Officer in Charge, Marine spection, Marine Safety Unit Port Arthur certified the vessel, in all respects, is in conformity with the applicable vessel inspectors and the rules and regulations prescribed thereunder. Annual/Periodic/Re-Inspection This certificate issued by Marine (OK) Date Zone A/P/R Signature J.J. ANDREW, CDR, USCG, By direction Officer in Charge, Marine Inspection Officer in Charge, Marine Inspection	Route Per Lakes	mitted And Con , Bays, and S barge is partic	Sounds	- the Eighth 4 Nin	1778 80811 DP CO	directed in ac	COTGANCE With OCMI Houston-G	ILS TANK BALUC
Annual/Periodic/Re-inspection This certificate issued by Madrice Date Zone A/P/R Signature 5-2022 Texes(Litr A Michael (U. Jehnsen)	THE R. L.	the second se		I had a labor to be labor to be a labor to be a labor to be a labor to be a labor to b	A Dark Arthur TV	LIMITED STAT	TES, the Office with the apolica	r in Charge, Mari ble vessel inspec
Date Zone A/P/R Signature J.J. ANDREW, CDR, USCG, By direction 5:2022 Texes(Life A Michael U. Jehnson Jr Marine Safety Unit Port Arthur	spection, A ws and the	rules and regula	tions presci	ibed mereunder.	This certif	icate issued by	Aladi	HA, COR
28:23 Stal Het F LEATE ATOM Walthe Salety Office of the			A/P/R	Signature	the second se	pa, Marina Inspection	Contraction of the second	

VIS Water

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United States of America Department of Homeland Security United States Coast Guard Certification Date: 09 Mar 2021 Expiration Date: 09 Mar 2026

Certificate of Inspection

Vessel Name: KIRBY 10527

Hull Exam	18					
Exam Type	Nex	t Exam	Last Exam		Prior Exa	am
DryDock	31D	31Dec2025		09Mar2021		010
Internal Structure	e 28Fe	eb2024	09Mar2021		01Feb20	016
Stability	-					
Туре	Issue	ed Date Off	ice			
Book	None	e Valid				
Liquid/Ga	s/Solid Cargo	Authority/Cond	itions			
Authorization:		MBUSTIBLE LIQUID				2
Total Capacity	Units		be Part151 Regu			Part154 Regulated
10853	Barrels	A	Yes	No	i vo riogalatou	No
*Hazardous Bul	lk Solids Authority	k.				
Not Authorized						
	raints - Structural*					
Tank Number		Max Cargo Weigh	t per Tank (short to	ns) N	laximum Densit	ty (lbs/gal)
1		499		1	3.60	
2		518		1	3.60	
3		566		1	3.60	
Loading Const	raints - Stability					
Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route D	escription	
1	1347	8ft 6in	13.6	R, LBS		
II	1400	8ft 9in	13.6	R, LBS		
11	1507	9ft 3in	12.4	R, LBS		
111	1400	8ft 9in	13.6	R, LBS		
Ш	1507	9ft 3in	12.4	R, LBS		
Conditions Of (Carriage					
Only those cargo be carried. The s	es named in the ves pecified hazardous	sel's Cargo Authority cargoes may be carrie	Attachment (CAA) ed only in the tanks	, serial #VN9 indicated.	2000790, dated	d 20 Apr 2000, may

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



United States of America Department of Homeland Security United States Coast Guard Certification Date: 09 Mar 2021 Expiration Date: 09 Mar 2026

Certificate of Inspection

Vessel Name: KIRBY 10527

by Marine Safety Center letters serial #M-10829, dated 20Nov91 and serial #C-20519 dated 18Dec92, and found acceptable for collection of bulk liquid cargo vapors from those specific Subchapter "D" cargoes contained in the that letter, and those specified hazardous cargoes annotated a "V" or "T" in the CAA.

The letter "V" in the note column of the CAA signifies approval for vapor control without any additional requirements.

The letter "T" in the note column of the CAA signifies that the cargo is highly toxic and that spill valves or rupture disks are not authorized as the primary means of overfill protection required by 46 CFR 39.20-9. A high level and overfill alarm is required by 46 CFR 39.20-7.

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 12.4 lbs/gal. Cargoes with higher densities, up to 13.60 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			External Exar	n	
Tank Id	Previous	Last	Next	Previous	Last	Next
1	03Dec2010	09Mar2021	31Dec2030	-	-	-
2	03Dec2010	09Mar2021	31Dec2030	-	-	-
3	03Dec2010	09Mar2021	31Dec2030	-	-	-
			Hydro Test			
Tank Id	Safety Valves	6	Previous	Last	Next	
1	-		-	-	-	
2	-		-	-	-	
3	-		-	-	-	

---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



Department of Transportation United States Coast Guard

Serial #:	VN92000790
COI Ref:	20-Apr-00

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10527 Official #: D981885

Page 1 of 3

Shipyard: CARUTHERSVILLE SHI Hull #: 5541

List of Authorized Cargoes

Cargo Identification						Conditions of Carriage		
		Comp	oat					
Name	Chem Code	Group No	Exc	Grade	Hull Type	Note	Special Requirements in 46 CFR 151 General and Mat'ls of Construction	
Authorized Subchapter 0 Cargoes								
Acetic acid	AAC	4	Y	D	111		.50-73, .55-1(g)	
Ammonium bisulfite solution (70% or less)	ABX	43	Y				.50-73, .56-1(a), (b), (c)	
Acetic anhydride	ACA	11	N	D			.50-73, .55-1(g)	
Acrylonitrile	ACN	15	Y	C	11	т	.50-70(a), .55-1(e)	
Acrylic acid	ACR	4	Y	D			.50-70(a), .50-73, .50-81, .58-1(a)	
Adiponitrile	ADN	37	N	E			No	
Aminoethylethanolamine	AEE	8	N	E			.55-1(b)	
Anthracene oil (Coal tar fraction)	AHO	33	N	-			No	
Alkyl(C7-C9) nitrates	AKN	34	Y				.50-81, .50-86	
Ammonium hydroxide (28% or less NH3)	AMH	6	N		111		.56-1(a), (b), (c), (f), (g)	
Aluminum sulfate solution	ASX	43	Y	NF	111		.58-1(e)	
Acetonitrile	ATN	37	N	C	111	т	No	
Butyraldehyde (all isomers)	BAE	19	N	c		1	.55-1(h)	
Butyl acrylate (all isomers)	BAR	14	N	D			.50-70(a), .50-81(a), (b)	
Butyl methacrylate	BMH							
Carbon tetrachloride		14	N	D			.50-70(a), .50-81(a), (b) No	
Cyclohexanone	CBT	36	N					
Creosote (all isomers)	CCH	18	N	D	111		.56-1(a), (b)	
Cyclohexylamine	CCW	21	Y	E	III		No	
Camphor oil	CHA	7	N	D	111		.56-1(a), (b), (c), (g)	
Caustic potash solution	CPO	18	N	D	11		No	
Chlorobenzene	CPS	5	Y		111		.50-73, .55-1(j)	
	CRB	36	N	D	111		No	
Chloroform	CRF	36	Ν	E	111		No	
Cresols	CRS	21	Ν	Е	III		No	
Cresylic acid tar	CRX	21	N		III		.55-1(f)	
Cyclopentadiene, Styrene, Benzene mixture	CSB	30	Ν	D		V	.50-60, .56-1(b)	
Cresylate spent caustic	CSC	5	Ν		III		.50-73, .55-1(b)	
Caustic soda solution	CSS	5	Y		111		.50-73, .55-1(j)	
Crotonaldehyde	CTA	19	Y	С	II	Т	.55-1(h)	
N,N-Dimethylacetamide	DAC	10	Ν	E	HI	Т	.56-1(b)	
2,4-Dichlorophenoxyacetic acid, dimethylamine saltsolution	DAD	0	Y		111		.56-1(a), (b), (c), (g)	
Diisobutylamine	DBU	7	Ν	D	Ш	Т	.55-1(c)	
Dichlorobenzenes (all isomers)	DBX	36	Ν	E	111	Т	.56-1(a), (b)	
1,1-Dichloroethane	DCH	36	Ν	С	Ш		No	
Dichloromethane	DCM	36	Ν	NF	III		No	
2,4-Dichlorophenoxyacetic acid, dimethylamine saltsolution (70% or less)	DDA	0	Y	NF	III		.55-1(b)	
2,4-Dichlorophenoxyacetic acid, diethanolamine saltsolution	DDE	43	N		III		.56-1(a), (b), (c), (g)	
Diethanolamine	DEA	8	Ν	E	Ш		.55-1(c)	
2,2'-Dichloroethyl ether	DEE	41	Ν	D	II		.55-1(f)	
Diethylamine	DEN	7	N	С	111	Т	.55-1(c)	
Diethylenetriamine	DET	7	Y	E	111		.55-1(c)	
Diisopropylamine	DIA	7	Ν	С	11	Т	.55-1(c)	
Diisopropanolamine	DIP	8	Ν	E	111		.55-1(c)	
Dimethylethanolamine	DMB	8	Ν	D	111		.56-1(b), (c)	
Dimethylformamide	DMF	10	Ν	D	111		.55-1(e)	
Dichloropropene, Dichloropropane mixtures	DMX	15	Ν		11		No	
Di-n-propylamine	DNA	7	Ν	С	11	Т	.55-1(c)	
Dodecyldimethylamine, Tetradecyldimethylamine mixture	DOT	7	Ν	E	111		.56-1(b)	
1,1-Dichloropropane	DPB	36	N	С	111		No	

*** This document is only valid when attached to, and referenced by a current, valid Certificate of Inspection. ***



Department of Transportation United States Coast Guard

Serial #:	VN92000790
COI Ref:	20-Apr-00

Certificate of Inspection Cargo Authority Attachment

Vessel Name: KIRBY 10527 Official #: D981885

Page 2 of 3

Shipyard: CARUTHERSVI Hull #: 5541

NameComput ConstraintsComput StreetNoRad NoSeale Requements in AGR 151 Constraints1.5.DichterpropaneDPC35NCIITNo1.5.DichterpropaneDPL35NCIINNo2.5.DichterpropaneDPL35NCIINNo2.4.DichterpropaneEACNANKNNN2.4.DichterpropaneEACNANKNNNNN2.4.DichterpropaneEACNNKNKNN	Cargo Identification						С	onditions of Carriage
Name Code No Ed Pet No Construction 1.2-Dichtorgroppane DPP 36 N C II T No 1.2-Dichtorgroppane DPP 36 N C III T No 2.4-Dichtorgroppane DPI 45 N C III T No 2.4-Dichtorgroppane EAI N C III T Sh7pa, Sh1pa, OH(a) 2.4-Dichtorgroppane EAI N C III T Sh7pa, Sh1pa, OH(a) 2.4-Dichtorgroppane EAI N C III T Sh7pa, Sh1pa, OH(a) 2.4-Dichtorgroppane EAI N A III T Sh7pa, Sh1pa, OH(a) 2.4-Dichtorgroppane EAI N A III T Sh1pa, Sh1pa, OH(a) 2.4-Dichtorgroppane EAI N C III Sh1pa, Sh1pa, OH(a) 2.4-Dichtorgroppane EAI N C IIII Sh1pa, Sh1pa,				pat				5
1.2-Dictiogroppane DPP 36 N C II T Me 2.4-Dictiogroppane DPU 16 N D II Me 2.4-Dictiogroppane/specific acid, Prilopropanolaminesalt solution DTI 48 V III Me 2.4-Dictiogroppane/specific acid, Prilopropanolaminesalt solution DTI 48 V III Me 2.4-Dictiogroppane/specific acid, Prilopropanolaminesalt solution DTI 48 N C III Me 2.4-Dictiogroppane/specific acid, Prilopropanolaminesalt solution DTI 48 N C III Me Me 2.4-Dictiogroppane/specific EAN 7 N A III T State Me Dirigor specific EAN 7 N A III T State Ethylese specific acid, Prilopropanolaminesalt solution EDA N C IIII State State Ethylese specific acid, Prilopropanolaminesalt solution EDA N C IIII State State Ethylese specind prine ECA III	Name			Exc	Grade		Note	
1.3-Dictoroprogene DPU 15 N N M Ethyl socylate EAL 14 N E M String (A) (A) (A) (A) Ethyl socylate EAL 14 N E M String (A) (A) (A) Ethyl socylate EAL 14 N E M String (A) (A) Ethyl socylate EAL 7 N A I T String (A) (A) Ethyl socylate EAL 7 N C II T String (A) Ethyl socylate EAL 7 N C II T String (A) Ethyl socylate ETA 7 N C II V Ne Ethyl socylate ETA 7 N C II N String (A) Ethyl socylate ETA 7 N C II Ne Ne Ethyl socylate ETA 9 Y D III Ne Ne Ethyl socylate ETH 14 N C IIII <t< td=""><td>1,3-Dichloropropane</td><td>DPC</td><td>36</td><td>Ν</td><td>С</td><td>III</td><td>т</td><td>No</td></t<>	1,3-Dichloropropane	DPC	36	Ν	С	III	т	No
2.4.Db/thorpshenosyseetic acid, triisopropanolaminesalt solution OT 4.5 Y W W Status 24.Db/thorps/acrylale EAI 14 N C W Status, (a) 25.Bhythopy acrylale EAI 14 N E W Status, (a) 25.Bhythopy acrylale EAN 7 N A U T Status, (a) 25.Bhythopy acrylale EAN 7 N A U T Status, (a) 25.Bhythopy acrylale EAN 7 N D U Status, (b) 25.Bhythop acrylarine EDIC 36 Y C III V Status Ethythop algor propieding EDIC 26 N E III Status Status Ethythop algor propieding EDIC 26 N E III Status Status Ethythop algor propieding EDIC 15 N E IIII Status Status Ethythop	1,2-Dichloropropane	DPP	36	Ν	С	III	т	No
Ethyl explaneEACIANCNPP <td>1,3-Dichloropropene</td> <td>DPU</td> <td>15</td> <td>Ν</td> <td>D</td> <td>11</td> <td></td> <td>No</td>	1,3-Dichloropropene	DPU	15	Ν	D	11		No
2-Ethylene yanylate EAU 14 N 0 10 49700, 35 410, 00 2-Ethylenine solution (72% or less) EAN 7 N A 1 T 55100 MEthylbutylame EBA 7 N A 1 T 55100 MEthylbutylame ECC 7 N D 11 55100 MEthyloutylame ECC 7 N D 11 55100 Ethylene divolor govyl ether ECD 36 Y C 11 N Ethylene dyson govyl ether ECD 7 Y E 11 N N Ethylene dyson govyl ether ECD 7 N E 11 N N Caturatadbyde solution (5% or less) FA 19 N E 11 N S+101 Caturatadbyde solution (5% or less) FA 19 N E 11 N S+101 Caturatadbyde solution (5% or less) FA N	2,4-Dichlorophenoxyacetic acid, triisopropanolaminesalt solution	DTI	43	Y		111		.56-1(a), (b), (c), (g)
Enhyamme EAN 7 N A II T 45400 NE:Bhybcycloheoylamine EGA 7 N C III T 45400 Ethydeoyloheoylamine EGO 7 N D III 55400 Ethydeoyloheoylamine EGO 36 Y D III 55400 Ethydeo glool proyl ether EGP 40 N E III Ne Ethydeo glool proyl ether EGP 40 N E III Ne Ethydeo glool proyl ether EGP 40 N E III Ne Ethydeo glool proyl ether EGP 40 N E III Ne Ethydeo glool proyl ether EGP 40 N E III Ne Ethydeo glool proyl ether Eddod gloop proyl ether Station (Ne Station (Ne Station (Ne Station (Ne Ethydeo gloop proyl ether Eddod gloop provid ether Station (Ne Station (Ne Station	Ethyl acrylate	EAC	14	N	С	111		.50-70(a), .50-81(a), (b)
N.E. Bry A. T. N. M. N. M. N. M. N. M. N. M. N.E. Brykendamine ECC 7 N. D. N.M. State Brykendamine EDA 7 N. D. N.M. V.M. Ethykendamine EDA 7 Y. D. N.M. V.M. Ethykendamine EDA 7 Y. D. N.M. V.M. Ethykendamine EDA 7 Y. D. N.M. V.M. Ethykendamine EDG 38 Y. C. N.M. N.M. N.M. Ethylendamine Solution ETM 14 N.C. N.M. N.M. N.M. Ethylendamine Solution (37% to 50%) FMS 19 Y.D. N.M.	2-Ethylhexyl acrylate	EAI	14	Ν	Е			.50-70(a), .50-81(a), (b)
N.E.Brykonskinskinski ECC 7 N D III 45 (B) Ethylsen diknoride EDA 7 Y D III 45 (B) Ethylsen diknoride EDA 7 Y D III 45 (B) Ethylsen diknoride EDA 80 Y E III No Ethylsen diknoride ETA 19 Y E III No No Ethylsen cyanchydrin ETC 20 N E III No 55 (P) Eufylsen dikonydration ETC 20 N E III No 55 (P) Eufylsen dikonydration FMA 19 Y DE III 55 (P) Eufwardingenemine HMI 7 N C III 55 (P) Elsoperia (Partial Solution (5%) or fess) GI (A) N N N N E S5 (P) Elsoperia (Partial Solution (5%) or fess) GI (A) N N N	Ethylamine solution (72% or less)	EAN	7	Ν	А	11	Т	.55-1(b)
Enly 4 mellohoride EDA 7 V D III 45-10 Ethylene dichloride EDC 8 Y C III V No Ethylene dijcol propyl ether EGP 40 N E III No Ethylene givol propyl ether EGP 40 N E III No Ethylene givol propyl ether EGP 40 N E III No Ethylene givol propyl ether EGP 40 N E III No Ethylene givol propyl ether EGP 40 N E III No Ethylene divol propyl ether EGP 40 N E III No No <td>N-Ethylbutylamine</td> <td>EBA</td> <td>7</td> <td>Ν</td> <td>С</td> <td>111</td> <td>Т</td> <td>.55-1(b)</td>	N-Ethylbutylamine	EBA	7	Ν	С	111	Т	.55-1(b)
Environ EDV 38 V C III V Not Ethylene glycol proyl ether EGP 40 N E III No Ethylene glycol proyl ether EGP 40 N E III No Ethylene oyanchydrin ETC 20 N E III No Eufylene oyanchydrin ETC 20 N E III Sofrogo Eufural FFA 19 N C III Sofrogo Eufural FFA 19 N F III Sofrogo Eufaraldehyde solution (50% or less) GTA 19 N N N E III Sofrogo Hexamethylenediamine solution HMI 7 N E III Sofrogo	N-Ethylcyclohexylamine	ECC	7	Ν	D			.55-1(b)
Environ EGP Au N E III V 2:Ehyl-3-propylactilein EPA 19 Y E III No 2:Ehyl-3-propylactilein EPA 19 Y E III No Ehyl-ander operation EPA 19 Y E III No Ehyl-ander operation ETM 14 N C III 35-70x) Caluariddhyde solution (37% to 50%) FMS 19 Y N E III 35-70x) Hexamethylenedamine solution (50% or less) GTA 19 N N E III 35-70x) Hexamethyleneimine HMI 7 N E III 35-70x) Hexamethyleneidanine solution HMR N N III 35-70x) Isoprene, Pentadiene mixure IPR 30 N A III 35-70x) Isoprene, Pentadiene mixure IPR 30 N C III 35-70x) <	Ethylenediamine	EDA	7	Y	D	111		.55-1(c)
2-EffW-5-propylacrolein EPA 10 V E III No Ethylene cyanchydrin ETC 20 N E III No Ethyl methacrydate ETC 10 N C III Mo Fundratelydae solution (37% to 50%) FFA 19 N FI III Mo Glutarateldhydae solution (37% to 50%) GTA 19 N N III Mo Hexamethylenediamine solution (50% to ress) GTA 19 N N III Mo Hexamethylenediamine solution HMI 7 N C III Mo Biogrene, Pentalee mixture IPN 30 N A III Mo Mo Biogrene Iprove IPP 30 N A III Mo Mo Mo Biogrene Iprove MA IA N C III Mo Mo Mo Biogrene Mo MO	Ethylene dichloride	EDC	36	Y	С	III	V	No
Entyden cyanotydrin ETC 20 N E m Me Ethyl methacrylate ETM 14 N C mi 56-70(e) Ethyl methacrylate ETM 14 N E mi 56-70(e) Ermatlethyde solution (37% to 50%) FMS 19 N E mi 55-10(e) Eduaratelchyde solution (37% to 50%) GMA N F mi 55-10(e) Elasamethylenediamine solution (37% to 50%) HMI 7 N E mi 55-10(e) Elasamethylenediamine solution (37% to 50%) HMI 7 N E mi 55-70(e) Stopfene, Pentadiene mixture IPN 30 N A mi 55-70(e) Stopfene IPP 7 N A mi 55-70(e) Stopfene IPP 70 N A mi 55-70(e) Stopfene IPP 7 N A mi 55-70(e) Stopfene	Ethylene glycol propyl ether	EGP	40	Ν	Е	111		No
Enyl methacrylate ETM 14 N C III 50-70(a) Furfural FFA 19 N E III 50-70(a) Formaldehyde solution (37% to 50%) FMS 19 N D/E IIII 55-10(a) Glutaraidehyde solution (37% to 50%) GTA 19 N NF III 55-10(a) Glutaraidehyde solution (37% to 50%) GTA 19 N NF III 55-10(a) Hexamethydenelamine solution HMC 7 N E III 55-10(a) Isoperene. HMM 14 N E III 55-10(a) 55-10(a) Isoperene. IPP 30 N A III 55-10(a) 55-10(a) Isoperene IRPN 30 N A III 55-10(a) 55-10(a) Isoperene IRPN 30 N C III 55-10(a) 55-10(a) Isoperene IRPL N C <td< td=""><td>2-Ethyl-3-propylacrolein</td><td>EPA</td><td>19</td><td>Y</td><td>Е</td><td>III</td><td></td><td>No</td></td<>	2-Ethyl-3-propylacrolein	EPA	19	Y	Е	III		No
Purtural CI.W. IV V E III A TRUE Cormaldelyde solution (37% to 50%) FNA 19 V DE III 55410) Cormaldelyde solution (57% to fless) GTA 19 N N NE IIII 55410) Hexamethydeneliamine solution HMI 7 N E III 55410) Boodecyl acrylder HMI 7 N E III 55410) Isoprene, Pentadiene mixture IPN 30 N A III 55710, 55810, (b), 55810) Isoprene, Pentadiene mixture IPN 30 N A III 55710, 55810, (b), (b) Isoprene, Pentadiene mixture IPN 30 N A III 55710, 55810, (b) Isoprene, Pentadiene mixture IPN 30 N A III 55710, 55810, (b) Isoprene IPR 30 N C III 55710, 55810, (b) Isoprene MMA IN C	Ethylene cyanohydrin	ETC	20	Ν	Е	III		No
Formaldehyde solution (37% to 50%) FN S 19 Y DC III 35 +10 ¹ Glutaradehyde solution (37% to 50%) GTA 19 N NF III No Hexamethydenelimine solution HMC 7 N E III 55 +100 Hexamethydenelimine HMI 7 N E III 55 +100 Bodeor,J acrylate IAI 14 N E III 55 +100 Isoprene, Pertadiene mixture IPN 30 N A III 55 +100 Isoprene, Pertadiene mixture IPP 7 N A III 55 +100 Isoprene, Gritadia content 3% or more) KPL 5 N IIII 40 +73, 55 +10, 0, 00 Methydiethanolamine MCK 30 N C III 45 +100, (00 Ethanolamine MCK 8 N E III 55 +100 Methydiethanolamine MCR 8 N E III 55 +100	Ethyl methacrylate	ETM	14	Ν	С	III		.50-70(a)
Glutaraldehyde solution (50% or less) GTA 19 N N N Hexamethylenediamine solution HMC 7 N E III 55-100 Hexamethylenedimine solution HMI 7 N E III 55-100 Isodecyl acrylate IAI 14 N E III 55-100 Isodecyl acrylate IAI 14 N E III 55-100 Isodecyl acrylate IPP 30 N A III 55-100 Isoprene, Pertadlene mixture IPP N A III 56-760, 56+16, 0, 0 Isoprene IPP N A III 56-760, 56+16, 0, 0 Methyl polydiopantalene dimer MCK 30 N E III 55+100 Methyl diethanolamine MCE 8 N E III 55+100 Methyl diethanolamine MEP 9 N E III 55+100 Methyl diethanolamine MER<	Furfural	FFA	19	N	E	111		.55-1(h)
Hexamethylenediamine solution HDC 7 N E III 55-1(a) Hexamethyleneimine HMI 7 N C II 55-10(a) 55-10(a) Stodecyl acrylate IAI 14 N C III 55-170(a) 55-17(a) 55-17(a) </td <td>Formaldehyde solution (37% to 50%)</td> <td>FMS</td> <td>19</td> <td>Y</td> <td>D/E</td> <td>111</td> <td></td> <td>.55-1(h)</td>	Formaldehyde solution (37% to 50%)	FMS	19	Y	D/E	111		.55-1(h)
Hexamethyleneimine Hmod 7 N C III 54-160, (a) Isodecy acrylate IAI 14I 14I N E III 55-700, 56-31(a), (b), (55-1(c) Isoperen, Pertadiene mixture IPN 30 N A III 55-16(a) Isoperen, Pertadiene mixture IPN 30 N A III 55-71(a) Isoperene IPP 7 N A III 55-71(a) Isoperene IPP 7 N A III 55-71(a) Kraft pulping liquors (free alkali content 3% or more) KPL 5 N C III 56-70(a), 56-81(a), (b) Methyl acrylate MAM 14 N C III 56-71(a) 56-71(a) Methyl acrylate MAM 4 N E III 55-11(a) Methyl derbandamine MCA 8 N E III 55-11(a) Methyl derbandamine MAA N C II	Glutaraldehyde solution (50% or less)	GTA	19	N	NF	111		No
Hexametylene imine HMI 7 N C II 94-10). (c) isodecyl acrylate IAI 14 V E III 95-70(0, 56-81(0), (b); 55-1(c) isoperne, Pertadiene mixture IPN 30 N A II 55-1(c) isoperne, Service IPP 7 N A II 55-7(c), 55-1(c) isoperne IPP 7 N A II 56-7(c), 55-81(c), (c) isoperne IPP 7 N C III 56-7(c), 56-81(c), (c) Keft pulping liguors (free alkali content 3% or more) KML N C III 56-7(c), 56-91(c), (c) Methylocylopentadiene dimer MCK N C III 56-1(c) Methylothynehosine MEA 8 N E III 56-1(c) Strip Strip Strip Strip Strip Strip Strip MEA 8 N E III Strip Strip	Hexamethylenediamine solution	HMC	7					.55-1(c)
Isoprene IPN N L III IIII IIII IIII IIII IIII IIII IIII IIII IIII IIIII IIIIII IIIIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Hexamethyleneimine	HMI	7					.56-1(b), (c)
isoprene IPN 30 N A III 59-70(a), 55-1(a) iso-Propylamine IPP 30 N A II 55-1(a) iso-Propylamine IPP 30 N A III 55-1(a) isoprene IPP 30 N A III 55-70(a), 55-1(a) Kraft pulping liquors (free alkali content 3% or more) KPL 5 N III 50-70(a), 55-1(a) Methy dichanolamine MCK 30 N C III 50-70(a), 50-1(a) Methyl dichanolamine MCK 30 N E III 55-1(a) Methyl methacrylate MEP 9 N E III 55-1(a) Methyl methacrylate MPA 8 N E III 55-1(a) Methyl methacrylate MPA 8 N E III 55-1(a) So-Propanolamine MPA 8 N E III 55-1(a) So-Propanolami	Isodecyl acrylate	IAI	14	N	E	111		.50-70(a), .50-81(a), (b), .55-1(c)
iso-Propylamine IPP 7 N A II 55-160 Isoprene IPR 30 N A III 50-706, 50-81(0, (b) Kraft pulping liquors (free alkali content 3% or more) KPL 5 N III 50-706, 50-81(0, (b) Methyl acrylate MAM 14 N C III 50-70(0, 50-81(0, (b) Methyl acrylate MAM 14 N C III 50-70(0, 50-81(0, (b) Methyl dichtanolamine MCK 30 N E III 56-10() Ethanolamine MEA 8 N E III 56-10() Sop-Propanolamine MEA 8 N E III 56-10() Morpholine MPA 8 N E III 56-10() Anthyl hypridine MPA 8 N E III 56-10() Achtyl hypridine MPA 8 N E III 56-10() <t< td=""><td>Isoprene, Pentadiene mixture</td><td>IPN</td><td>30</td><td></td><td>A</td><td></td><td></td><td>.50-70(a), .55-1(c)</td></t<>	Isoprene, Pentadiene mixture	IPN	30		A			.50-70(a), .55-1(c)
isoprene IPR 30 N A III 50-70(a). 50-81(a). (b) Kraft pulping liquors (free alkali content 3% or more) KPL 5 N III 50-73, 56-10(a). (b) Methyl acytale MAK 30 N C III 50-73, 56-10(a). (b) Methyl acytale MAK 30 N C III 50-70(a). 50-81(a). (b) Methyl acytale MAK 30 N C III 50-70(a). 50-81(a). (b) Methyl acytale MAK 8 N E III 50-70(a). 50-81(a). (b) Methyl acytale MAK 8 N E III 50-70(a). 50-81(a). (b) Methyl methacrylate MMM 14 N C III 50-70(a). 50-81(a). (b) Morpholine MPA 8 N E III 50-70(a). 50-81(a). (b) Adethyl pyridine MMR 14 N C III 50-70(a). 50-81(a). (b) Adethyl pyridine MPA 8 N E<	iso-Propylamine	IPP	7	N	A			.55-1(c)
Methyl acrylate MAM 14 N C III .50-70(a), 50-81(a), (b) Methyl acrylate MCK 30 N C III No Methyl diethanolamine MCK 30 N C III No Ethanolamine MEA 8 N E III .55-1(e) 2-Methyl-S-ethylpyridine MEP 9 N E III .55-1(e) Methyl methacrylate MMM 14 N C III .55-1(e) Methyl methacrylate MPL 7 Y D III .55-1(e) Methyl dire MPL 7 Y D III .55-1(e) 2-Methylpyridine MPR 9 N D III .55-1(e) 2-Methylpyridine MPR 9 N D III .56-1(e) 2-Methylpyridine MPR 9 N D III .55-1(e) 2-Methylpyridine MPR	Isoprene	IPR	30					.50-70(a), .50-81(a), (b)
Methylcyclopentadiene dimer MCK 30 N C III No Methyl diethanolamine MDE 8 N E III 55-1(c) Ethanolamine MEA 8 N E III 55-1(c) 2-Methyl-5-ethylpyridine MEP 9 N E III 55-1(c) 2-Methyl-5-ethylpyridine MPA 8 N E III 55-1(c) So-Propanolamine MMM 14 N C III 55-1(c) Morpholine MPA 8 N E III 55-1(c) 2-Methylpyridine MPA 8 N E III 55-1(c) Mesify dxide MSO 18 Y D III 50-70(a), 50-81(a), (b) Cal tar naphtha solvent NCT 33 N D III 50-73 1 - or 2-Nitropropane PAX 8 N E III 50-71(a), 50-81(a), (b) Polyethylene poly	Kraft pulping liquors (free alkali content 3% or more)	KPL	5	N		111		.50-73, .56-1(a), (c), (g)
Methyl diethanolamine MDE GG N D III 56-1(b). (c) Ethanolamine MEA 8 N E III .55-1(c) 2-Methyl-5-ethylpyridine MEP 9 N E III .55-1(c) 2-Methyl-5-ethylpyridine MEP 9 N E III .55-1(c) 2-Methyl-5-ethylpyridine MPA 8 N E III .55-1(c) Morpholine MPA 8 N E III .55-1(c) 2-Methylpyridine MPA 9 N D III .55-1(c) Mesityl oxide MSO 18 Y D III .56-7(a)50-31(a). (b) Coal tar naphtha solvent NCT 33 N D III .50-7(a)50-41(a). (b) Coal tar naphtha solvent NCT 33 N D III .50-7(a)50-41(a). (b) 1- or 2-Nitropropane PDE 30 N A III .50-7(a)50-41(Methyl acrylate	MAM	14	N	С	111	100000000000000000000000000000000000000	.50-70(a), .50-81(a), (b)
Bits Bits <th< td=""><td>Methylcyclopentadiene dimer</td><td>MCK</td><td>30</td><td>Ν</td><td>С</td><td>111</td><td></td><td>No</td></th<>	Methylcyclopentadiene dimer	MCK	30	Ν	С	111		No
Ethanolamine MEA 8 N E III 55.1(c) 2-Methyl-S-ethylpyridine MEP 9 N E III 55.1(c) Methyl methacrylate MMM 14 N C III 55.7(c) so-Propanolamine MPA 8 N E III 55.1(c) worpholine MPA 8 N D III T 55.1(c) 2-Methylpyridine MPR 9 N D III T 55.1(c) 2-Methylpyridine MPR 9 N D III T 55.1(c) 2-Methylpyridine MSO 18 Y D III T 55.1(c) 2-Methylpyridine MSO 18 Y D III 50.7(a).50.81(a).(b) 2-Methylpyridine MSO 18 N D III 50.7(a).50.81(a).(b) Coal tar naphtha solvent NCT 33 N D III 50.7	Methyl diethanolamine	MDE	8	N				.56-1(b), (c)
2-Methyl-S-ethylpyridine MEP 9 N E III	Ethanolamine	MEA	8		E			
Methyl methacrylate MMM 14 N C III	2-Methyl-5-ethylpyridine	MEP	9	N	E			.55-1(e)
iso-Propanolamine MPA 8 N E III .55-1(c) Morpholine MPL 7 Y D III .55-1(c) 2-Methylpyridine MPR 9 N D III T .55-1(c) 2-Methylpyridine MPR 9 N D III T .55-1(c) Mesityl oxide MSO 18 Y D III No alpha-Methylstyrene MSR 30 N D III .50-70(a)50-81(a).(b) Coal tar naphtha solvent NCT 33 N D III .50-70(a)50-81(a).(b) Coal tar naphtha solvent NCT 33 N D III .50-70(a)50-81 Propanolamine (iso-, n-) PAX 8 N E III .50-70(a)50-81 Polyethylene polyamines PEB 7 Y E III .50-70(a)50-81 Perchloroethylene PEB 7 Y E III	Methyl methacrylate	MMM	14					.50-70(a), .50-81(a), (b)
Image Image <th< td=""><td>iso-Propanolamine</td><td>MPA</td><td>8</td><td>N</td><td>E</td><td></td><td></td><td>.55-1(c)</td></th<>	iso-Propanolamine	MPA	8	N	E			.55-1(c)
2-Methylpyridine MPR 9 N D III T 55-1(c) Mesityl oxide MSO 18 Y D III No alpha-Methylstyrene MSR 30 N D III 50-70(a). 50-81(a). (b) Coal tar naphtha solvent NCT 33 N D III 50-73 1- or 2-Nitropropane NPM 42 N D III 50-81 Propanolamine (iso-, n-) PAX 8 N E III 50-73(a). 50-81 Polyethylene polyamines PDE 30 N A III 50-70(a). 50-81 Polyethylene polyamines PEB 7 Y E III 55-1(e) Portopionic acid PNA 4 N D III 55-1(e) Pyridine Propanol 45% or less) SAU 5 N F III 50-73. 55-1(g) Sodium aluminate solution (45% or less) SAU 5 N III 50-73. 55-1(s) 50-73. 55-1(s) Sodium chlorate solution (45% or less) SAU	Morpholine	MPL	7	Y	D	Ш		.55-1(c)
Mesityl oxide MSO 18 Y D III No alpha-Methylstyrene MSR 30 N D III .50-70(a)50-81(a). (b) Coal tar naphtha solvent NCT 33 N D III .50-73 1- or 2-Nitropropane NPM 42 N D III .50-81 Propanolamine (iso-, n-) PAX 8 N E III .50-73(a)50-81 1.3-Pentadiene PDE 30 N A III .50-73(a)50-81 Polyethylene polyamines PDE 30 N A III .50-73(a)50-81 Polyethylene polyamines PEB 7 Y E III .50-73(a)50-81 Polyethylene polyamines PER 36 N NF III .50-73(a)50-16(a) Polyethylene polyamines PER 36 N NF III .50-7355-1(a) Polyethylene polyamines Sodium sulfide. solution (45% or less) SAU 5	2-Methylpyridine	MPR		N	D		Т	.55-1(c)
alpha-Methylstyrene MSR 30 N D III .50-70(a), .50-81(a), (b) Coal tar naphtha solvent NCT 33 N D III .50-73 1- or 2-Nitropropane NPM 42 N D III .50-81 Propanolamine (iso-, n-) PAX 8 N E III .50-70(a), .50-81 1.3-Pentadiene PDE 30 N A III .50-70(a), .50-81 Polyethylene polyamines PEB 7 Y E III .55-1(e) Porpionic acid PNA 4 N D III .50-73, .55-1(g) Pyridine Sodium aluminate solution (45% or less) SAU 5 N NF III .50-73, .55-1(g) Sodium chlorate solution (50% or less) SAU 5 N VF III .50-73, .55-1(g) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y NF III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSI 0 Y III	Mesityl oxide	MSO	18		D			No
Coal tar naphtha solvent NCT 33 N D III .50-73 1- or 2-Nitropropane NPM 42 N D III .50-81 Propanolamine (iso-, n-) PAX 8 N E III .56-1(b). (c) 1.3-Pentadiene PDE 30 N A III .50-70(a)50-81 Polyethylene polyamines PEB 7 Y E III .55-1(e) Perchloroethylene PER 36 N NF III No Propionic acid PNA 4 N D III .50-73, .55-1(g) Pyridine PRD 9 N C III .50-73, .55-1(g) Sodium aluminate solution (45% or less) SAU 5 N III .50-73, .55-1(g) Sodium chlorate solution (50% or less) SDD 0 Y III .50-73, .55-1(g) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SDH V III .50-73, .55-1(b)	alpha-Methylstyrene	MSR		N	D			.50-70(a), .50-81(a), (b)
1- or 2-Nitropropane NPM 42 N D III .50-81 Propanolamine (iso-, n-) PAX 8 N E III .56-1(b). (c) 1.3-Pentadiene PDE 30 N A III .50-70(a)50-81 Polyethylene polyamines PEB 7 Y E III .55-1(e) Perchloroethylene PER 36 N NF III No Propionic acid PNA 4 N D III .50-73, .55-1(g) Pyridine PRD 9 N C III .50-73, .55-1(g) Sodium aluminate solution (45% or less) SAU 5 N VF III .50-73, .55-1(a). (b). (c) Sodium chlorate solution (50% or less) SDD 0 Y NF III .50-73, .55-1(a). (b). (c) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SHQ 5 N NF III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b)	Coal tar naphtha solvent	NCT	33	N	D			.50-73
Propanolamine (iso-, n-) PAX 8 N E III .56-1(b). (c) 1,3-Pentadiene PDE 30 N A III .50-70(a)50-81 Polyethylene polyamines PEB 7 Y E III .55-1(e) Perchloroethylene PER 36 N NF III No Propionic acid PNA 4 N D III .50-73, .55-1(g) Pyridine PRD 9 N C III .50-73, .55-1(g) Sodium aluminate solution (45% or less) SAU 5 N III .50-73, .55-1(a). (b). (c) Sodium chlorate solution (50% or less) SDD 0 Y NF III .50-73, .56-1(a). (b). (c) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SHQ 5 N NF III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSI 0 Y III .50-73, .55-1(b) <td>1- or 2-Nitropropane</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>.50-81</td>	1- or 2-Nitropropane							.50-81
1,3-Pentadiene PDE 30 N A III .50-70(a), .50-81 Polyethylene polyamines PEB 7 Y E III .55-1(e) Perchloroethylene PER 36 N N F III No Propionic acid PNA 4 N D III .50-73, .55-1(g) Pyridine PRD 9 N C III .50-73, .55-1(g) Sodium aluminate solution (45% or less) SAU 5 N V III .50-73, .56-1(a), (b), (c) Sodium chlorate solution (50% or less) SDD 0 Y NF III .50-73, .56-1(a), (b), (c) Sodium sulfide, hydrosulfide solution (42% or less) SDL 0 Y NF III .50-73, .56-1(a), (b) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SHQ 5 N NF III .50-73, .56-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSI 0 </td <td>Propanolamine (iso-, n-)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>.56-1(b), (c)</td>	Propanolamine (iso-, n-)							.56-1(b), (c)
Polyethylene polyaminesPEB7YEIII.55-1(e)PerchloroethylenePER36NNFIIINoPropionic acidPNA4NDIII.50-73, .55-1(g)PrydinePRD9NCIII.50-73, .55-1(g)Sodium aluminate solution (45% or less)SAU5NCIII.50-73, .56-1(a), (b), (c)Sodium chlorate solution (50% or less)SDDOYNFIII.50-73Sodium hypochlorite solution (20% or less)SHQ5NNFIII.50-73, .56-1(a), (b), (c)Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless)SSH0YIII.50-73, .56-1(a), (b)Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm)SSI0YIII.50-73, .55-1(b)Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm)SSI0YIII.50-73, .55-1(b)Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm)SSI0YIII.50-73, .55-1(b)	1,3-Pentadiene							
Perchloroethylene PER 36 N NF III No Propionic acid PNA 4 N D III .50-73, .55-1(g) Pyridine PRD 9 N C III .55-1(e) Sodium aluminate solution (45% or less) SAU 5 N V III .50-73, .56-1(a), (b), (c) Sodium chlorate solution (50% or less) SDD O Y NF III .50-73, .56-1(a), (b), (c) Sodium hypochlorite solution (20% or less) SDD O Y NF III .50-73, .56-1(a), (b) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SHQ 5 N NF III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSI 0 Y III .50-73, .55-1(b)	Polyethylene polyamines							.55-1(e)
Propionic acid PNA 4 N D III .50-73, .55-1(g) Pyridine PRD 9 N C III .55-1(e) Sodium aluminate solution (45% or less) SAU 5 N III .50-73, .56-1(a), (b), (c) Sodium chlorate solution (50% or less) SDD 0 Y NF III .50-73, .56-1(a), (b), (c) Sodium hypochlorite solution (20% or less) SDD 0 Y NF III .50-73, .56-1(a), (b) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SHQ 5 N NF III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSI 0 Y III .50-73, .55-1(b)	Perchloroethylene							
Pyridine PRD 9 N C III .55-1(e) Sodium aluminate solution (45% or less) SAU 5 N III .50-73, .56-1(a), (b), (c) Sodium chlorate solution (50% or less) SDD 0 Y NF III .50-73, .56-1(a), (b), (c) Sodium hypochlorite solution (20% or less) SDD 0 Y NF III .50-73, .56-1(a), (b) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SHQ 5 N NF III .50-73, .56-1(a), (b) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSJ 0 Y III .50-73, .55-1(b)	Propionic acid							.50-73, .55-1(g)
Sodium aluminate solution (45% or less) SAU 5 N III .50-73, .56-1(a), (b), (c) Sodium chlorate solution (50% or less) SDD 0 Y NF III .50-73 Sodium hypochlorite solution (20% or less) SHQ 5 N NF III .50-73, .56-1(a), (b), (c) Sodium hypochlorite solution (20% or less) SHQ 5 N NF III .50-73, .56-1(a), (b) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SSH 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSJ 0 Y III .50-73, .55-1(b)	Pyridine							
Sodium chlorate solution (50% or less) SDD 0 Y NF III .50-73 Sodium hypochlorite solution (20% or less) SHQ 5 N NF III .50-73, .56-1(a), (b) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SSH 0 Y III .50-73, .56-1(a), (b) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SSH 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSJ 0 Y II .50-73, .55-1(b)	Sodium aluminate solution (45% or less)				100			
Sodium hypochlorite solution (20% or less) SHQ 5 N NF III .50-73, .55-1(a), (b) Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SSH 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSJ 0 Y II .50-73, .55-1(b)	Sodium chlorate solution (50% or less)				NF			
Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless) SSH 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSJ 0 Y II .50-73, .55-1(b)	Sodium hypochlorite solution (20% or less)							.50-73, .56-1(a), (b)
Sodium sulfide, hydrosulfide solution (H2S greater than15 ppm but less than 200 ppm) SSI 0 Y III .50-73, .55-1(b) Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSJ 0 Y II .50-73, .55-1(b)	Sodium sulfide, hydrosulfide solution (H2S 15 ppm orless)							
Sodium sulfide, hydrosulfide solution (H2S greater than200 ppm) SSJ 0 Y II .50-73, .55-1(b)								
Sodium thiocyanate solution (56% or less) STS 0 Y III .58-1(a)	Sodium thiocyanate solution (56% or less)	STS						.58-1(a)

*** This document is only valid when attached to, and referenced by a current, valid Certificate of Inspection. ***



Department of Transportation **United States Coast Guard**

Certificate of Inspection

Cargo Authority Attachment

Vessel Name: KIRBY 10527 Official #: D981885

Page 3 of 3

Shipyard: CARUTHERSVI Hull #: 5541

Cargo Identification	Cargo Identification					С	onditions of Carriage
		Comp	oat				
Name	Chem Code	Group No	Exc	Grade	Hull Type	Note	Special Requirements in 46 CFR 151 General and Mat'ls of Construction
Styrene	STY	30	N	D	111		.50-70(a), .50-81(a), (b)
Trichloroethylene	TCL	36	Y		111		No
1,1,2-Trichloroethane	TCM	36	N		111		.50-73, .56-1(a)
1,2,3-Trichloropropane	TCN	36	N	Е	11	Т	.50-73, .56-1(a)
Triethanolamine	TEA	8	Y	E	111		.55-1(b)
1,1,2,2-Tetrachloroethane	TEC	36	Ν	NF	111		No
Triethylamine	TEN	7	N	С	11	т	.55-1(e)
Triethylenetetramine	TET	7	Y	Е	111		.55-1(b)
Tetrahydrofuran	THF	41	N	С	111		.50-70(b)
Triphenylborane (10% or less), caustic soda solution	TPB	5	N		111		.56-1(a), (b), (c)
Tetraethylenepentamine	TTP	7	Ν	Е	111		.55-1(c)
Urea, Ammonium nitrate solution (containing more than2% Ammonia)	UAS	6	N		[[]		.56-1(b)
Vinyl acetate	VAM	13	N	С	111		.50-70(a), .50-81(a), (b)
Vanillin black liquor (free alkali content 3% or more)	VBL	5	N		111		.50-73, .56-1(a), (c), (g)
Vinyltoluene	VNT	13	N	D	111		.50-70(a), .50-81, .56-1(a), (b), (c), (g)

Explanation of terms & symbols used in the Table:

C

Cargo Identification	
Name	The proper shipping name as listed in 46 CFR Table 151.05.
Chem Code	The three letter designation assigned to the cargo in the Chemical Hazards Response Information System (CHRIS) Manual.
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.
Exceptions (Exc)	Indication of whether or not there are exceptions to the compatibility chart for the given cargo. See Appendix I to 46 CFR Part 150.
Grade	The cargo dassification assigned to each flammable or combustible liquid. Grades inside of "{ }" indicate a provisional assignment based upon literature sources which were not verified by manufacturers data. The Person in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo.
A, B, C	Flammable liquid cargoes, as defined in 46 CFR 30-10.22.
D, E	Combustible liquid cargoes, as defined in 46 CFR 30-10.15.
NA, NF #	Those subchapter O cargoes which are not dassified 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.
Huli Type I II III	The required barge hull classification for carriage of the specified Subchapter Ohazardous 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 sufficient hazard to require a moderate degree of control. See 46 CFR 151.10-1(b)(4).
Conditions of Carriage	
Note	See Certificate of Inspection for evaluation of symbols used in this column

Certificate of Inspection for explaination of symbols used in this column.

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Serial #: VN92000790 COI Ref: 20-Apr-00