

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389, Spring
United States



Attention of : Mr. D.N. Nakata
Your reference : USEBARGCHE-2009-015 / 4976830

Certificate of Quality

Report number	: 13074/00001144.2/L/20	Date of sampling	: 09-05-2020
Main Object	: Kirby 13022B	Place of sampling	: Vopak Terminal Deer Park
Report Date	: 09-17-2020	Date received	: 09-07-2020
Date of issue	: 09-07-2020	Date completed	: 09-07-2020
Sample object	: 815	Sample number	: 10476397
Sample type	: Sampled		
Sample submitted as	: Aromatic Feedstock		
Marked	: Shore tank 815 running before loading		

NAME	METHOD	UNIT	RESULT
Distillation	ASTM D 86		

All results in this report refer to the sample(s) tested as taken or submitted like specified in this Analysis report. Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244, IP 367, ISO 4259 or GOST 33701. This report shall not be partially copied and reproduced without the written permission of the laboratory.

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389, Spring
United States



Attention of : Mr. D.N. Nakata
Your reference : USEBARGCHE-2009-015 / 4976830

Certificate of Quality

Report number : 13074/00001144.2/L/20 Date of sampling : 09-05-2020
Main Object : Kirby 13022B Place of sampling : Vopak Terminal Deer Park
Report Date : 09-17-2020 Date received : 09-07-2020
Date of issue : 09-07-2020 Date completed : 09-07-2020
Sample object : 815 Sample number : 10476397
Sample type : Sampled
Sample submitted as : Aromatic Feedstock
Marked : Shore tank 815 running before loading

NAME	METHOD	UNIT	RESULT
Initial boiling point		°F	402.3
5% Recovered		°F	419.3
10% Recovered		°F	427.7
15% Recovered		°F	432.0
20% Recovered		°F	437.0
25% Recovered		°F	443.5
30% Recovered		°F	449.7
35% Recovered		°F	456.7
40% Recovered		°F	464.4
45% Recovered		°F	474.0
50% Recovered		°F	485.3
55% Recovered		°F	497.9
60% Recovered		°F	510.2
65% Recovered		°F	523.6
70% Recovered		°F	536.8
75% Recovered		°F	550.1
80% Recovered		°F	564.1
85% Recovered		°F	579.8
90% Recovered		°F	600.8
95% Recovered		°F	643.7
Final boiling point		°F	682.3
Pct at 425°F ¹		vol %	7.8
Residue		vol %	1.1
Loss		vol %	0.0

Remarks:

1 Original spec is 10 max. but customer will accept up to 50 - DO NOT call customer - we have waiver

Signed by: Michael Calais - Laboratory Manager
Issued by: Saybolt LP
Place and date of issue: Houston - 09-07-2020

All results in this report refer to the sample(s) tested as taken or submitted like specified in this Analysis report. Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244, IP 367, ISO 4259 or GOST 33701. This report shall not be partially copied and reproduced without the written permission of the laboratory.

All results in this report refer to the sample(s) tested as taken or submitted like specified in this Analysis report. Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244, IP 367, ISO 4259 or GOST 33701. This report shall not be partially copied and reproduced without the written permission of the laboratory.

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389, Spring
United States



Attention of : Mr. D.N. Nakata
Your reference : USEBARGCHE-2009-015 / 4976830

Certificate of Quality

Report number	: 13074/00001144.2/L/20	Date of sampling	: 09-05-2020
Main Object	: Kirby 13022B	Place of sampling	: Vopak Terminal Deer Park
Report Date	: 09-17-2020	Date received	: 09-05-2020
Date of issue	: 09-06-2020	Date completed	: 09-06-2020
Sample object	: 815	Sample number	: 10476398
Sample type	: Sampled		
Sample submitted as	: Aromatic Feedstock		
Marked	: Shore tank 815 running before loading		

NAME	METHOD	UNIT	RESULT
Free Water	Visual	-	C/B
Suspended Matter	Visual	-	C/B
Aromatics (on 90% Distillate)	ASTM D 1319	vol %	99.7
Sulphur (S)	ASTM D 5453	wt ppm	<1
Specific Gravity @ 15.6 / 15.6°C ¹	ASTM D 4052		0.9777
API Gravity @ 60°F	ASTM D 4052	-	13.22
Water	ASTM E 203	wt ppm	106
Simulated Distillation	ASTM D 2887		
IBP		°F	407
5% recovered		°F	412
10% recovered		°F	417
15% recovered		°F	420
20% recovered		°F	426
25% recovered		°F	428
30% recovered		°F	432
35% recovered		°F	456
40% recovered		°F	460
45% recovered		°F	462
50% recovered		°F	483
55% recovered		°F	494
60% recovered		°F	502
65% recovered		°F	524
70% recovered		°F	543
75% recovered		°F	565
80% recovered		°F	581
85% recovered		°F	603
90% recovered		°F	619
95% recovered		°F	652
FBP		°F	882
Distillation	ASTM D 86		
Initial boiling point		°F	402.7

All results in this report refer to the sample(s) tested as taken or submitted like specified in this Analysis report. Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244, IP 367, ISO 4259 or GOST 33701. This report shall not be partially copied and reproduced without the written permission of the laboratory.

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389, Spring
United States



Attention of : Mr. D.N. Nakata
Your reference : USEBARGCHE-2009-015 / 4976830

Certificate of Quality

Report number : 13074/00001144.2/L/20 Date of sampling : 09-05-2020
Main Object : Kirby 13022B Place of sampling : Vopak Terminal Deer Park
Report Date : 09-17-2020 Date received : 09-05-2020
Date of issue : 09-06-2020 Date completed : 09-06-2020
Sample object : 815 Sample number : 10476398
Sample type : Sampled
Sample submitted as : Aromatic Feedstock
Marked : Shore tank 815 running before loading

NAME	METHOD	UNIT	RESULT
5% Recovered		°F	419.7
10% Recovered		°F	428.6
15% Recovered		°F	434.0
20% Recovered		°F	438.2
25% Recovered		°F	443.5
30% Recovered		°F	450.4
35% Recovered		°F	457.1
40% Recovered		°F	465.2
45% Recovered		°F	474.9
50% Recovered		°F	486.8
55% Recovered		°F	499.1
60% Recovered		°F	512.0
65% Recovered		°F	524.7
70% Recovered		°F	537.5
75% Recovered		°F	550.9
80% Recovered		°F	564.4
85% Recovered		°F	580.5
90% Recovered		°F	601.2
95% Recovered		°F	649.7
Final boiling point		°F	691.9
Pct at 425°F ²		vol %	7.9
Residue		vol %	1.4
Loss		vol %	0.1

Remarks:

- 1 Original spec is 0.98 min - we have waiver for 0.94 - DO NOT call customer
- 2 Original spec is 10 max. but customer will accept up to 50 - DO NOT call customer - we have waiver

Signed by: Michael Calais - Laboratory Manager
Issued by: Saybolt LP
Place and date of issue: Houston - 09-06-2020

All results in this report refer to the sample(s) tested as taken or submitted like specified in this Analysis report. Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244, IP 367, ISO 4259 or GOST 33701. This report shall not be partially copied and reproduced without the written permission of the laboratory.

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389, Spring
United States



Attention of : Mr. D.N. Nakata
Your reference : USEBARGCHE-2009-015 / 4976830

Certificate of Quality

Report number : 13074/00001144.2/L/20 Composite prep date : 09-10-2020
Main Object : Kirby 13022B Place of sampling : Vopak Terminal Deer Park
Report Date : 09-17-2020 Date received : 09-10-2020
Date of issue : 09-11-2020 Date completed :
Sample object : Kirby 13022B Sample number : 10497123
Sample type : Composite
Sample submitted as : Aromatic Feedstock
Marked : Barge Kirby 13022B multiple tank composite prepared from running samples ex 1p , 1s , 2p , 2s after loading from Shore tank 815

Composite (10497123)			
SAMPLE NR	OBJECT	DESCRIPTION	RATIO
10497106	Kirby 13022B	Barge Kirby 13022B 1p running after loading from Shore tank 815	
10497108	Kirby 13022B	Barge Kirby 13022B 1s running after loading from Shore tank 815	
10497110	Kirby 13022B	Barge Kirby 13022B 2p running after loading from Shore tank 815	
10497112	Kirby 13022B	Barge Kirby 13022B 2s running after loading from Shore tank 815	

NAME	METHOD	UNIT	RESULT
Free Water	Visual	-	WATER FREE
Suspended Matter	Visual	-	CFSM
Aromatics (on 90% Distillate)	ASTM D 1319	vol %	99.6
Sulphur (S)	ASTM D 5453	wt ppm	1.6
Specific Gravity @ 15.6 / 15.6°C ¹	ASTM D 4052		0.9778
API Gravity @ 60°F	ASTM D 4052	-	13.2
Water	ASTM E 203	wt ppm	168
Distillation	ASTM D 86		
Initial boiling point		°F	404.3
5% Recovered		°F	418.5
10% Recovered		°F	428.1
15% Recovered		°F	433.1
20% Recovered		°F	437.6
25% Recovered		°F	443.3
30% Recovered		°F	449.7
35% Recovered		°F	457.0
40% Recovered		°F	465.5
45% Recovered		°F	474.6
50% Recovered		°F	487.5
55% Recovered		°F	500.3
60% Recovered		°F	512.6
65% Recovered		°F	525.5
70% Recovered		°F	538.2

All results in this report refer to the sample(s) tested as taken or submitted like specified in this Analysis report. Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244, IP 367, ISO 4259 or GOST 33701. This report shall not be partially copied and reproduced without the written permission of the laboratory.

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389, Spring
United States



Attention of : Mr. D.N. Nakata
Your reference : USEBARGCHE-2009-015 / 4976830

Certificate of Quality

Report number : 13074/00001144.2/L/20 Composite prep date : 09-10-2020
Main Object : Kirby 13022B Place of sampling : Vopak Terminal Deer Park
Report Date : 09-17-2020 Date received : 09-10-2020
Date of issue : 09-11-2020 Date completed :
Sample object : Kirby 13022B Sample number : 10497123
Sample type : Composite
Sample submitted as : Aromatic Feedstock
Marked : Barge Kirby 13022B multiple tank composite prepared from running samples ex 1p , 1s , 2p , 2s after loading from Shore tank 815

Composite (10497123)			
SAMPLE NR	OBJECT	DESCRIPTION	RATIO
10497106	Kirby 13022B	Barge Kirby 13022B 1p running after loading from Shore tank 815	
10497108	Kirby 13022B	Barge Kirby 13022B 1s running after loading from Shore tank 815	
10497110	Kirby 13022B	Barge Kirby 13022B 2p running after loading from Shore tank 815	
10497112	Kirby 13022B	Barge Kirby 13022B 2s running after loading from Shore tank 815	

NAME	METHOD	UNIT	RESULT
75% Recovered		°F	551.8
80% Recovered		°F	566.0
85% Recovered		°F	582.5
90% Recovered		°F	602.7
95% Recovered		°F	650.9
Final boiling point		°F	686.8
Pct at 425°F ²		vol %	8
Residue		vol %	1.4
Loss		vol %	0.2
Simulated Distillation	ASTM D 2887		
IBP		°F	407
5% recovered		°F	412
10% recovered		°F	417
15% recovered		°F	420
20% recovered		°F	426
25% recovered		°F	428
30% recovered		°F	432
35% recovered		°F	456
40% recovered		°F	460
45% recovered		°F	462
50% recovered		°F	484
55% recovered		°F	493
60% recovered		°F	502
65% recovered		°F	524

All results in this report refer to the sample(s) tested as taken or submitted like specified in this Analysis report. Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244, IP 367, ISO 4259 or GOST 33701. This report shall not be partially copied and reproduced without the written permission of the laboratory.

EXXONMOBIL CHEMICAL CO
22777 Springwoods Village Parkway
77389, Spring
United States



Attention of : Mr. D.N. Nakata
Your reference : USEBARGCHE-2009-015 / 4976830

Certificate of Quality

Report number : 13074/00001144.2/L/20 Composite prep date : 09-10-2020
Main Object : Kirby 13022B Place of sampling : Vopak Terminal Deer Park
Report Date : 09-17-2020 Date received : 09-10-2020
Date of issue : 09-11-2020 Date completed :
Sample object : Kirby 13022B Sample number : 10497123
Sample type : Composite
Sample submitted as : Aromatic Feedstock
Marked : Barge Kirby 13022B multiple tank composite prepared from running samples ex 1p , 1s , 2p , 2s after loading from Shore tank 815

Composite (10497123)			
SAMPLE NR	OBJECT	DESCRIPTION	RATIO
10497106	Kirby 13022B	Barge Kirby 13022B 1p running after loading from Shore tank 815	
10497108	Kirby 13022B	Barge Kirby 13022B 1s running after loading from Shore tank 815	
10497110	Kirby 13022B	Barge Kirby 13022B 2p running after loading from Shore tank 815	
10497112	Kirby 13022B	Barge Kirby 13022B 2s running after loading from Shore tank 815	

NAME	METHOD	UNIT	RESULT
70% recovered		°F	542
75% recovered		°F	564
80% recovered		°F	580
85% recovered		°F	603
90% recovered		°F	618
95% recovered		°F	651
FBP		°F	872

Test comments:
Simulated Distillation (ASTM D 2887): RESULTS TAKEN FROM SHIPPING TANK - LAB PLEASE TRANSFER DATA FROM SHORETANK PRIOR TO BARGE FINAL

- Remarks:
- 1 Original spec is 0.98 min - we have waiver for 0.94 - DO NOT call customer
 - 2 Original spec os 10 max but customer will accept up to 50 - DO NOT call customer - we have waiver

Signed by: Michael Calais - Laboratory Manager
Issued by: Saybolt LP
Place and date of issue: Houston - 09-11-2020

All results in this report refer to the sample(s) tested as taken or submitted like specified in this Analysis report. Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244, IP 367, ISO 4259 or GOST 33701. This report shall not be partially copied and reproduced without the written permission of the laboratory.