

CERTIFICATE OF ANALYSIS

Publish No: 2015118791

Publisher: 유정섭

PRODUCT	K-150ULN	SPEC CLASS	General sale specification 1 (SOL-C-A-0172)
SAMPLING POINT	P-T227	DATE SAMPLED	2015-11-14 15:40
LOT NO	3-151313	CUSTOMER	biz

Test Item	Result	Spec	Test Method
Color, Saybolt	+30	MIN +30	ASTMD 156
Specific Gravity 15.56/15.56°C	0.8876	0.88 - 0.90	ASTMD 4052
Density 15°C kg/m ³	887.3		
Distillation at 760 mmHg			
Initial Boiling Point °C	176.0	MIN 174	ASTMD 86
50% Evaporated Temperature °C	179.6	MAX 200	
Dry Point °C	188.6	MAX 215	
Final Boiling Point °C	197.8	MAX 230	
Flash Point-TCC °C	59.5	MIN 55	ASTMD 56
Mixed Aniline Point °C	13.2	MAX 17	ASTMD 611
Aromatics vol %	99.99	-	G.C
Benzene wt ppm	0	MAX 1	GC
Durene vol %	6.51	MAX 8	G.C
Naphthalene vol %	0.00	MAX 0.1	G.C
Copper Corrosion 100°C, 30min	Pass	Note.1	ASTMD 849
Water Contents wt ppm	60		

NOTE : Any evidence of iridescence or gray or black deposit or discoloration of the flat surface shall be considered cause for rejection. A perfectly uniform tarnishing of the flat surface shall be disregarded.

I CERTIFY THE ABOVE STATEMENT OF QUALITY TO BE TRUE AND CORRECT.

Print Date: 2015-11-25

Quality Control Team Leader



1. The test results may be used as the specified purpose.

110, KOSA-DONG, NAMGU, ULSAN, KOREA P. O. BOX 4 ULSAN KOREA TEL: 052-208-3412 FAX: 052-208-3434

CERTIFICATE OF ANALYSIS

Publish No: 2015118794

Publisher: 유정섭

PRODUCT	K-150ULN	SPEC CLASS	General sale specification 1 (SOL-C-A-0172)
SAMPLING POINT	P-T226	DATE SAMPLED	2015-11-12 23:20
LOT NO	3-151306	CUSTOMER	biz

Test Item	Result	Spec	Test Method
Color, Saybolt	+30	MIN +30	ASTMD 156
Specific Gravity 15.56/15.56°C	0.8882	0.88 - 0.90	ASTMD 4052
Density 15°C kg/m ³	887.9		
Distillation at 760 mmHg			
Initial Boiling Point °C	175.3	MIN 174	ASTMD 86
50% Evaporated Temperature °C	178.8	MAX 200	
Dry Point °C	188.2	MAX 215	
Final Boiling Point °C	197.3	MAX 230	
Flash Point-TCC °C	57.0	MIN 55	ASTMD 56
Mixed Aniline Point °C	13.2	MAX 17	ASTMD 611
Aromatics vol %	99.99	-	G.C
Benzene wt ppm	0	MAX 1	GC
Durene vol %	6.30	MAX 8	G.C
Naphthalene vol %	0.00	MAX 0.1	G.C
Copper Corrosion 100°C, 30min	Pass	Note.1	ASTMD 849

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CERTIFICATE OF ANALYSIS

Publish No: 2015118795

Publisher: 유정섭

PRODUCT	K-150ULN	SPEC CLASS	General sale specification 1 (SOL-C-A-0172)
SAMPLING POINT	P-T225	DATE SAMPLED	2015-11-10 01:00
LOT NO	3-151290	CUSTOMER	Biz

Test Item	Result	Spec	Test Method
Color, Saybolt	+30	MIN +30	ASTMD 156
Specific Gravity 15.56/15.56°C	0.8876	0.88 - 0.90	ASTMD 4052
Density 15°C kg/m ³	887.3		
Distillation at 760 mmHg			
Initial Boiling Point °C	175.6	MIN 174	ASTMD 86
50% Evaporated Temperature °C	179.5	MAX 200	
Dry Point °C	189.0	MAX 215	
Final Boiling Point °C	197.4	MAX 230	
Flash Point-TCC °C	59.0	MIN 55	ASTMD 56
Mixed Aniline Point °C	13.4	MAX 17	ASTMD 611
Aromatics vol %	99.99	-	G.C
Benzene wt ppm	0	MAX 1	GC
Durene vol %	6.37	MAX 8	G.C
Naphthalene vol %	0.00	MAX 0.1	G.C
Copper Corrosion 100°C, 30min	Pass	Note.1	ASTMD 849
Water Contents wt ppm	50		

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CERTIFICATE OF ANALYSIS

Publish No: 2015118798

Publisher: 유정섭

PRODUCT	K-150ULN	SPEC CLASS	General sale specification 1 (SOL-C-A-0172)
SAMPLING POINT	P-T227	DATE SAMPLED	2015-11-04 09:10
LOT NO	3-151273	CUSTOMER	biz

Test Item	Result	Spec	Test Method
Color, Saybolt	+30	MIN +30	ASTMD 156
Specific Gravity 15.56/15.56°C	0.8846	0.88 - 0.90	ASTMD 4052
Density 15°C kg/m ³	884.3		
Distillation at 760 mmHg			
Initial Boiling Point °C	176.0	MIN 174	ASTMD 86
50% Evaporated Temperature °C	180.1	MAX 200	
Dry Point °C	187.5	MAX 215	
Final Boiling Point °C	195.2	MAX 230	
Flash Point-TCC °C	58.5	MIN 55	ASTMD 56
Mixed Aniline Point °C	13.6	MAX 17	ASTMD 611
Aromatics vol %	99.99	-	G.C
Benzene wt ppm	0	MAX 1	GC
Durene vol %	4.82	MAX 8	G.C
Naphthalene vol %	0.00	MAX 0.1	G.C
Copper Corrosion 100°C, 30min	Pass	Note.1	ASTMD 849
Water Contents wt ppm	65		

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CERTIFICATE OF ANALYSIS

Publish No: 2015118799

Publisher: 유정섭

PRODUCT	K-150ULN	SPEC CLASS	General sale specification 1 (SOL-C-A-0172)
SAMPLING POINT	P-T227	DATE SAMPLED	2015-10-03 07:05
LOT NO	3-151144	CUSTOMER	biz

Test Item	Result	Spec	Test Method
Color, Saybolt	+30	MIN +30	ASTMD 156
Specific Gravity 15.56/15.56°C	0.8846	0.88 - 0.90	ASTMD 4052
Density 15°C kg/m³	884.3		
Distillation at 760 mmHg			
Initial Boiling Point °C	176.3	MIN 174	ASTMD 86
50% Evaporated Temperature °C	180.0	MAX 200	
Dry Point °C	187.7	MAX 215	
Final Boiling Point °C	196.7	MAX 230	
Flash Point-TCC °C	58.0	MIN 55	ASTMD 56
Mixed Aniline Point °C	14.0	MAX 17	ASTMD 611
Aromatics vol %	99.99	-	G.C
Benzene wt ppm	0	MAX 1	GC
Durene vol %	4.89	MAX 8	G.C
Naphthalene vol %	0.00	MAX 0.1	G.C
Copper Corrosion 100°C, 30min	Pass	Note.1	ASTMD 849

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