

CERTIFICATE OF ANALYSIS

ACETONITRILE

160 KGS x 80 DRUMS

AUG.08, 2022

MATERIAL BATCH NBR: 220630502B

TEST ITEMS	SPECIFICATIONS	RESULTS
1. APPEARANCE	COLORLESS, LIMPID LIQUID.	COLORLESS, LIMPID LIQUID.
2. SPECIFIC GRAVITY, 20/20 °C	0.782~0.785	0.783
3. DISTILLATION RANGE, °C	80.0~82.0	80.9~82.0
4. ACETONITRILE, %wt	99.9 Min.	99.96
5. WATER, %wt	0.05 Max.	0.0078
6. COPPER, ppm	0.3 Max.	< 0.1
7. IRON, ppm	0.3 Max.	< 0.1
8. COLOR, APHA/Pt-Co	10 Max.	5
9. ACIDITY(as CH ₃ COOH), %wt	0.005 Max.	0.0010
10. PROPIONITRILE, ppm	500 Max.	246
11. ACRYLONITRILE, ppm	5 Max.	N.D.
12. ACETONE, ppm	5 Max.	N.D.
13. HCN, ppm	10 Max.	2.7
14. FREE AMMONIA, ppm	6 Max.	2.1
15. ALLYL ALCOHOL, ppm	30 Max.	N.D.

THE NAME OF MANUFACTURER : IMPERIAL CHEMICAL CORP.

 APPROVED :  *e. p. Lee*

 ANALYST :  *Y. W. HUANG*

CERTIFICATE OF ANALYSIS

 ACETONITRILE
 160 KGS x 80 DRUMS

AUG.08, 2022

MATERIAL BATCH NBR: 220617502B

TEST ITEMS	SPECIFICATIONS	RESULTS
1. APPEARANCE	COLORLESS, LIMPID LIQUID.	COLORLESS, LIMPID LIQUID.
2. SPECIFIC GRAVITY, 20/20 °C	0.782~0.785	0.783
3. DISTILLATION RANGE, °C	80.0~82.0	80.9~82.0
4. ACETONITRILE, %wt	99.9 Min.	99.96
5. WATER, %wt	0.05 Max.	0.0084
6. COPPER, ppm	0.3 Max.	< 0.1
7. IRON, ppm	0.3 Max.	< 0.1
8. COLOR, APHA/Pt-Co	10 Max.	5
9. ACIDITY(as CH ₃ COOH), %wt	0.005 Max.	0.0010
10. PROPIONITRILE, ppm	500 Max.	269
11. ACRYLONITRILE, ppm	5 Max.	N.D.
12. ACETONE, ppm	5 Max.	N.D.
13. HCN, ppm	10 Max.	2.7
14. FREE AMMONIA, ppm	6 Max.	2.1
15. ALLYL ALCOHOL, ppm	30 Max.	N.D.

THE NAME OF MANUFACTURER : IMPERIAL CHEMICAL CORP.

 APPROVED : 

 ANALYST : 

CERITFICATE OF ANALYSIS

ACETONITRILE

160 KGS x 80 DRUMS

JUN.15, 2022

MATERIAL BATCH NBR: 220609502B

TEST ITEMS	SPECIFICATIONS	RESULTS
1. APPEARANCE	COLORLESS, LIMPID LIQUID.	COLORLESS, LIMPID LIQUID.
2. SPECIFIC GRAVITY, 20/20 °C	0.782~0.785	0.783
3. DISTILLATION RANGE, °C	80.0~82.0	80.9~82.0
4. ACETONITRILE, %wt	99.9 Min.	99.96
5. WATER, %wt	0.05 Max.	0.0080
6. COPPER, ppm	0.3 Max.	< 0.1
7. IRON, ppm	0.3 Max.	< 0.1
8. COLOR, APHA/Pt-Co	10 Max.	5
9. ACIDITY(as CH ₃ COOH), %wt	0.005 Max.	0.0010
10. PROPIONITRILE, ppm	500 Max.	253
11. ACRYLONITRILE, ppm	5 Max.	N.D.
12. ACETONE, ppm	5 Max.	N.D.
13. HCN, ppm	10 Max.	2.7
14. FREE AMMONIA, ppm	6 Max.	2.1
15. ALLYL ALCOHOL, ppm	30 Max.	N.D.

THE NAME OF MANUFACTURER : IMPERIAL CHEMICAL CORP.

APPROVED :



ANALYST :



CERTIFICATE OF ANALYSIS

ACETONITRILE

160 KGS x 80 DRUMS

MAY 27, 2022

MATERIAL BATCH NBR: 220519502B

TEST ITEMS	SPECIFICATIONS	RESULTS
1. APPEARANCE	COLORLESS, LIMPID LIQUID.	COLORLESS, LIMPID LIQUID.
2. SPECIFIC GRAVITY, 20/20 °C	0.782~0.785	0.783
3. DISTILLATION RANGE, °C	80.0~82.0	80.9~82.0
4. ACETONITRILE, %wt	99.9 Min.	99.96
5. WATER, %wt	0.05 Max.	0.0074
6. COPPER, ppm	0.3 Max.	< 0.1
7. IRON, ppm	0.3 Max.	< 0.1
8. COLOR, APHA/Pt-Co	10 Max.	5
9. ACIDITY(as CH ₃ COOH), %wt	0.005 Max.	0.0010
10. PROPIONITRILE, ppm	500 Max.	253
11. ACRYLONITRILE, ppm	5 Max.	N.D.
12. ACETONE, ppm	5 Max.	N.D.
13. HCN, ppm	10 Max.	2.7
14. FREE AMMONIA, ppm	6 Max.	2.7
15. ALLYL ALCOHOL, ppm	30 Max.	N.D.

THE NAME OF MANUFACTURER : IMPERIAL CHEMICAL CORP.

 APPROVED : 

 ANALYST : 

CERTIFICATE OF ANALYSIS

ACETONITRILE

160 KGS x 80 DRUMS

MAY 20, 2022

MATERIAL BATCH NBR: 220512502B

TEST ITEMS	SPECIFICATIONS	RESULTS
1. APPEARANCE	COLORLESS, LIMPID LIQUID.	COLORLESS, LIMPID LIQUID.
2. SPECIFIC GRAVITY, 20/20 °C	0.782~0.785	0.783
3. DISTILLATION RANGE, °C	80.0~82.0	80.9~82.0
4. ACETONITRILE, %wt	99.9 Min.	99.96
5. WATER, %wt	0.05 Max.	0.0065
6. COPPER, ppm	0.3 Max.	< 0.1
7. IRON, ppm	0.3 Max.	< 0.1
8. COLOR, APHA/Pt-Co	10 Max.	5
9. ACIDITY(as CH ₃ COOH), %wt	0.005 Max.	0.0010
10. PROPIONITRILE, ppm	500 Max.	266
11. ACRYLONITRILE, ppm	5 Max.	N.D.
12. ACETONE, ppm	5 Max.	N.D.
13. HCN, ppm	10 Max.	2.7
14. FREE AMMONIA, ppm	6 Max.	2.7
15. ALLYL ALCOHOL, ppm	30 Max.	N.D.

THE NAME OF MANUFACTURER : IMPERIAL CHEMICAL CORP.

 APPROVED : 

 ANALYST : 

CERTIFICATE OF ANALYSIS

ACETONITRILE

160 KGS x 80 DRUMS

APR.19, 2022

MATERIAL BATCH NBR: 220414502B

TEST ITEMS	SPECIFICATIONS	RESULTS
1. APPEARANCE	COLORLESS, LIMPID LIQUID.	COLORLESS, LIMPID LIQUID.
2. SPECIFIC GRAVITY, 20/20 °C	0.782~0.785	0.783
3. DISTILLATION RANGE, °C	80.0~82.0	80.9~82.0
4. ACETONITRILE, %wt	99.9 Min.	99.96
5. WATER, %wt	0.05 Max.	0.0062
6. COPPER, ppm	0.3 Max.	< 0.1
7. IRON, ppm	0.3 Max.	< 0.1
8. COLOR, APHA/Pt-Co	10 Max.	5
9. ACIDITY(as CH ₃ COOH), %wt	0.005 Max.	0.0010
10. PROPIONITRILE, ppm	500 Max.	263
11. ACRYLONITRILE, ppm	5 Max.	N.D.
12. ACETONE, ppm	5 Max.	N.D.
13. HCN, ppm	10 Max.	3.4
14. FREE AMMONIA, ppm	6 Max.	2.1
15. ALLYL ALCOHOL, ppm	30 Max.	N.D.

THE NAME OF MANUFACTURER : IMPERIAL CHEMICAL CORP.

 APPROVED :  *e. p. Lee*

 ANALYST :  *y. w. KUNG*

CERTIFICATE OF ANALYSIS

 ACETONITRILE
 160 KGS x 80 DRUMS

APR.19, 2022

MATERIAL BATCH NBR: 220413502B

TEST ITEMS	SPECIFICATIONS	RESULTS
1. APPEARANCE	COLORLESS, LIMPID LIQUID.	COLORLESS, LIMPID LIQUID.
2. SPECIFIC GRAVITY, 20/20 °C	0.782~0.785	0.783
3. DISTILLATION RANGE, °C	80.0~82.0	80.9~82.0
4. ACETONITRILE, %wt	99.9 Min.	99.97
5. WATER, %wt	0.05 Max.	0.0042
6. COPPER, ppm	0.3 Max.	< 0.1
7. IRON, ppm	0.3 Max.	< 0.1
8. COLOR, APHA/Pt-Co	10 Max.	5
9. ACIDITY(as CH ₃ COOH), %wt	0.005 Max.	0.0010
10. PROPIONITRILE, ppm	500 Max.	231
11. ACRYLONITRILE, ppm	5 Max.	N.D.
12. ACETONE, ppm	5 Max.	N.D.
13. HCN, ppm	10 Max.	3.4
14. FREE AMMONIA, ppm	6 Max.	3.2
15. ALLYL ALCOHOL, ppm	30 Max.	N.D.

THE NAME OF MANUFACTURER : IMPERIAL CHEMICAL CORP.

 APPROVED : 

 ANALYST : 

CERTIFICATE OF ANALYSIS

 ACETONITRILE
 160 KGS x 80 DRUMS

APR.08, 2022

MATERIAL BATCH NBR: 220407502B

TEST ITEMS	SPECIFICATIONS	RESULTS
1. APPEARANCE	COLORLESS, LIMPID LIQUID.	COLORLESS, LIMPID LIQUID.
2. SPECIFIC GRAVITY, 20/20 °C	0.782~0.785	0.783
3. DISTILLATION RANGE, °C	80.0~82.0	80.9~82.0
4. ACETONITRILE, %wt	99.9 Min.	99.97
5. WATER, %wt	0.05 Max.	0.0047
6. COPPER, ppm	0.3 Max.	< 0.1
7. IRON, ppm	0.3 Max.	< 0.1
8. COLOR, APHA/Pt-Co	10 Max.	5
9. ACIDITY(as CH ₃ COOH), %wt	0.005 Max.	0.0010
10. PROPIONITRILE, ppm	500 Max.	200
11. ACRYLONITRILE, ppm	5 Max.	N.D.
12. ACETONE, ppm	5 Max.	N.D.
13. HCN, ppm	10 Max.	2.7
14. FREE AMMONIA, ppm	6 Max.	2.7
15. ALLYL ALCOHOL, ppm	30 Max.	N.D.

THE NAME OF MANUFACTURER : IMPERIAL CHEMICAL CORP.

 APPROVED : 

 ANALYST : 

CERTIFICATE OF ANALYSIS

ACETONITRILE

160 KGS x 80 DRUMS

MAR.25, 2022

MATERIAL BATCH NBR: 220322502B

TEST ITEMS	SPECIFICATIONS	RESULTS
1. APPEARANCE	COLORLESS, LIMPID LIQUID.	COLORLESS, LIMPID LIQUID.
2. SPECIFIC GRAVITY, 20/20 °C	0.782~0.785	0.783
3. DISTILLATION RANGE, °C	80.0~82.0	80.9~82.0
4. ACETONITRILE, %wt	99.9 Min.	99.97
5. WATER, %wt	0.05 Max.	0.0057
6. COPPER, ppm	0.3 Max.	< 0.1
7. IRON, ppm	0.3 Max.	< 0.1
8. COLOR, APHA/Pt-Co	10 Max.	5
9. ACIDITY(as CH ₃ COOH), %wt	0.005 Max.	0.0010
10. PROPIONITRILE, ppm	500 Max.	185
11. ACRYLONITRILE, ppm	5 Max.	N.D.
12. ACETONE, ppm	5 Max.	N.D.
13. HCN, ppm	10 Max.	2.4
14. FREE AMMONIA, ppm	6 Max.	2.1
15. ALLYL ALCOHOL, ppm	30 Max.	N.D.

THE NAME OF MANUFACTURER : IMPERIAL CHEMICAL CORP.

APPROVED :



ANALYST :



CERTIFICATE OF ANALYSIS

ACETONITRILE

160 KGS x 80 DRUMS

MAR.04, 2022

MATERIAL BATCH NBR: 220221502B

TEST ITEMS	SPECIFICATIONS	RESULTS
1. APPEARANCE	COLORLESS, LIMPID LIQUID.	COLORLESS, LIMPID LIQUID.
2. SPECIFIC GRAVITY, 20/20 °C	0.782~0.785	0.783
3. DISTILLATION RANGE, °C	80.0~82.0	80.9~82.0
4. ACETONITRILE, %wt	99.9 Min.	99.97
5. WATER, %wt	0.05 Max.	0.0040
6. COPPER, ppm	0.3 Max.	< 0.1
7. IRON, ppm	0.3 Max.	< 0.1
8. COLOR, APHA/Pt-Co	10 Max.	5
9. ACIDITY(as CH ₃ COOH), %wt	0.005 Max.	0.0010
10. PROPIONITRILE, ppm	500 Max.	228
11. ACRYLONITRILE, ppm	5 Max.	N.D.
12. ACETONE, ppm	5 Max.	N.D.
13. HCN, ppm	10 Max.	2.4
14. FREE AMMONIA, ppm	6 Max.	2.1
15. ALLYL ALCOHOL, ppm	30 Max.	N.D.

THE NAME OF MANUFACTURER : IMPERIAL CHEMICAL CORP.

 APPROVED : 

 ANALYST : 