

To: MESSRS.

Certificate of Analysis

This is to certify that the quality of the following commodity has been duly inspected by our testing division and is found to be in accordance with specifications of KURARAY CO., LTD.

30-0ct-2020

Name of Commodity

: TERTIARY BUTYL ALCOHOL (TERTIARY BUTANOL)

Lot No.

: 13318

Production Date Date of Analysis : 6-Oct-2020 : 5-Oct-2020

Best Before Date Quantity

: 5-Oct-2022 : 18,910 kg

Our Analysis Results

Test Item	Units	Specification	Results	Results
Appearance Purity (GC) Water Freezing Point Color(APHA) Specific Gravity Acidity as acetic acid	% ppm °C	Clear, Colorless Liquid ≥ 99.50 ≤ 1000 ≥ 25.0 ≤ 10 0.7740-0.7770 ≤ 0.003	Clear, Colorless Liquid 99, 98 67 25, 7 <5 0, 7757 <0, 001	OK OK OK OK OK OK
Residue On Evaporation	96	≤ 0.002	<0.001	OK
	- A	,	*	

Note

With best regards,

Kuraray Co., Ltd.

For Masahiro Ogaki

Chemicals Marketing & Sales Department Isoprene Chemicals Division

Isoprene Company

ISOPRENE CHEMICALS DIVISION

Ote Center Building

1-1-3 Otemachi, Chiyoda-ku, Tokyo, 100-8115 Japan

Telephone: 81-3-6701-1620, Facsimile: 81-3-6701-1646



To: MESSRS.

Certificate of Analysis

This is to certify that the quality of the following commodity has been duly inspected by our testing division and is found to be in accordance with specifications of KURARAY CO., LTD.

30-0ct-2020

Name of Commodity

: TERTIARY BUTYL ALCOHOL (TERTIARY BUTANOL)

Lot No.

: 13319 : 7-0ct-2020

Production Date Date of Analysis Best Before Date

: 5-0ct-2020 : 6-Oct-2022

Quantity

: 5,890 kg

Our Analysis Results

Test Item	Units	Specification	Results	Results
Appearance		Clear, Colorless Liquid	Clear, Colorless Liquid	OK
Purity (GC)	%	≥ 99.50	99. 98	OK
Water	ppm	≦ 1000	67	OK
Freezing Point	℃	≥ 25.0	25. 7	OK
Color (APHA)		≦ 10	< 5	OK
Specific Gravity		0. 7740-0. 7770	0. 7757	OK
Acidity as acetic acid	%	≦ 0.003	< 0.001	OK
Residue On Evaporation	%	≦ 0.002	<0.001	OK
		1		
				2
			1	
		_		,
	120			
		1		
		*		
a a				
¥ .				
-				
				3-5

With best regards,

Kuraray Co., Ltd.

For Masahiro Ogaki

Chemicals Marketing & Sales Department

Isoprene Chemicals Division

Isoprene Company

ISOPRENE CHEMICALS DIVISION

Ote Center Building

1-1-3 Otemachi, Chiyoda-ku, Tokyo, 100-8115 Japan Telephone: 81-3-6701-1620, Faccimile: 81-3-6701-162



To: MESSRS.

Certificate of Analysis

This is to certify that the quality of the following commodity has been duly inspected by our testing division and is found to be in accordance with specifications of KURARAY CO., LTD.

30-0ct-2020

Name of Commodity

: TERTIARY BUTYL ALCOHOL (TERTIARY BUTANOL)

Lot No.

: 13319

Production Date

: 7-0ct-2020

Date of Analysis

: 5-0ct-2020 : 6-0ct-2022

Best Before Date Quantity

: 5,890 kg

Our Analysis Results

Test Item	Units	Specification	Results	Results
Appearance Purity (GC) Water Freezing Point Color (APHA) Specific Gravity Acidity as acetic acid Residue On Evaporation	% ppm °C	Clear Colorless Liquid ≥ 99.50 ≤ 1000 ≥ 25.0 ≤ 10 0.7740-0.7770 ≤ 0.003 ≤ 0.002	Clear, Colorless Liquid 99. 98 67 25. 7 <5 0. 7757 <0. 001 <0. 001	OK OK OK OK OK OK

Note

With best regards,

Kuraray Co., Ltd.

For Masahiro Ogaki

Chemicals Marketing & Sales Department

Isoprene Chemicals Division

Isoprene Company

ISOPRENE CHEMICALS DIVISION Ote Center Building

1-1-3 Otemachi, Chiyoda-ku, Tokyo, 100-8115 Japan