

## Certificate Of Analysis

RUSSIAN FED.

Customer Order No. : 211L  
 Customer Number : 57557  
 Date Shipped : February 18, 2016  
 Lyondell Order No. : 4106651 000010  
 Delivery Item No. : 87825225 000010

Lyondell Material : 499013 1,4 BUTANEDIOL, BULK  
 Batch Number : RB160218C1  
 Vehicle Number : MEBU 126037-4

Test Description	Specifications		Test Result	Unit of Measure
	Minimum	Maximum		
Source Tank			3724	
Appearance	Pass		Pass	
1,4 Butanediol assay	99,50		99,96	weight %
Water		300	17	weight ppm
Color, Pt-Co		10	2	APHA Color
Carbonyl as CHO		0,30	0,00	mgKOH/g
End of Test Data				

End of Document

Specification Version: 6

Print Date: February 18, 2016

**For Further Questions, Please Contact your Customer Service Representative**

France/Portugal: 00.31.10.275.4410 Italy: 00.31.10.275.4430 Spain: 00.31.10.275.4435 Oxyfuels: 00.31.10.275.4219  
 Middle East/Africa: 00.31.10.275.4414 Benelux: 00.31.10.275.4402 UK/Scandinavia: 00.31.10.275.4406  
 Germany/Switzerland: 00.31.10.275.4423

This Certificate of Analysis contains the most current information available as of the print date.

This document shall not be reproduced except in full, without the written approval of the issuer.

The Lyondell method numbers and the reference/base method numbers are located on the specification document.

Specification documents are available upon request from your Customer Service Representative.

CXHEIJDE

This document is generated electronically and is valid without signature. Our Quality Management System is certified. Quality control department is independent from production.