

Date:-27-11-2023

CERTIFICATE OF ANALYSIS

PRODUCT :- 4-CHLOROBUTYRYL CHLORIDE
Batch # :- 4CBC-S1315
Chemical Formula :- $\text{Cl}(\text{CH}_2)_3\text{COCl}$
Molecular Weight :- 141.00
Mfg. date :- 25-11-2023
Retest date :- 24-11-2024

<u>NAME OF THE TEST</u>	<u>LIMITS</u>	<u>RESULTS</u>
Description	Colourless transparent liquor.	Colourless transparent liquor.
Identification	The retention time of the Substance should match with that of reference substance.	The retention time of the Substance matches with that of reference substance.
Purity (BY GC)	NLT 98.00 %	99.42%
RRT 0.85	NMT 0.50 %	0.09%
RRT 1.38	NMT 0.50 %	0.01%
RRT 1.42	NMT 0.04 %	0.02%
RRT 2.25	NMT 1.00%	0.01%
Individual impurity	NMT 0.50 %	0.28%
Total Impurity	NMT 2.0 %	0.58%

The sample complies as per above limits.

PREPARED BY

CHECKED BY

VERIFIED BY

DATE:

K.P. Rung

27-11-2023

DATE:

HJ

27.11.2023

DATE: 27.11.2023



Shital Chemical Industries

Regd Office & Work : S. No. 194/1, Village Sokhada, Vaduchi Mata Road, Tal. Khambhat-388620, Dist. Anand, Gujarat, India.

Phone : +91 7226817726 Email : sci@shitalchem.com

Date:-27-11-2023

CERTIFICATE OF ANALYSIS

PRODUCT :- 4-CHLOROBUTYRYL CHLORIDE
Batch # :- 4CBC-S1316
Chemical Formula :- $\text{Cl}(\text{CH}_2)_3\text{COCl}$
Molecular Weight :- 141.00
Mfg. date :- 25-11-2023
Retest date :- 24-11-2024

<u>NAME OF THE TEST</u>	<u>LIMITS</u>	<u>RESULTS</u>
Description	Colourless transparent liquor.	Colourless transparent liquor.
Identification	The retention time of the Substance should match with that of reference substance.	The retention time of the Substance matches with that of reference substance.
Purity (BY GC)	NLT 98.00 %	99.43%
RRT 0.85	NMT 0.50 %	0.07%
RRT 1.38	NMT 0.50 %	0.01%
RRT 1.42	NMT 0.04 %	0.03%
RRT 2.25	NMT 1.00%	0.01%
Individual impurity	NMT 0.50 %	0.20%
Total Impurity	NMT 2.0 %	0.57%

The sample complies as per above limits.

PREPARED BY

CHECKED BY

VERIFIED BY

DATE: K.P. Rungy
27.11.2023

DATE: [Signature]
27.11.2023

DATE: [Signature]
27.11.2023



ISO-9001 : 2015
Reg. No. 99560



Shital Chemical Industries

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Date:-27-11-2023

CERTIFICATE OF ANALYSIS

PRODUCT :- 4-CHLOROBUTYRYL CHLORIDE
Batch # :- 4CBC-S1317
Chemical Formula :- $\text{Cl}(\text{CH}_2)_3\text{COCl}$
Molecular Weight :- 141.00
Mfg. date :- 26-11-2023
Retest date :- 25-11-2024

<u>NAME OF THE TEST</u>	<u>LIMITS</u>	<u>RESULTS</u>
Description	Colourless transparent liquor.	Colourless transparent liquor.
Identification	The retention time of the Substance should match with that of reference substance.	The retention time of the Substance matches with that of reference substance.
Purity (BY GC)	NLT 98.00 %	99.38%
RRT 0.85	NMT 0.50 %	0.07%
RRT 1.38	NMT 0.50 %	N/D
RRT 1.42	NMT 0.04 %	0.02%
RRT 2.25	NMT 1.00%	0.01%
Individual impurity	NMT 0.50 %	0.28%
Total Impurity	NMT 2.0 %	0.62%

The sample complies as per above limits.

PREPARED BY

CHECKED BY

VERIFIED BY

K.P. Rany
DATE: 27-11-2023

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DATE: 27-11-2023



ISO-9001 : 2015
Reg. No. 99560

Date:-27-11-2023

CERTIFICATE OF ANALYSIS

PRODUCT :- 4-CHLOROBUTYRYL CHLORIDE
Batch # :- 4CBC-S1318
Chemical Formula :- $\text{Cl}(\text{CH}_2)_3\text{COCl}$
Molecular Weight :- 141.00
Mfg. date :- 26-11-2023
Retest date :- 25-11-2024

<u>NAME OF THE TEST</u>	<u>LIMITS</u>	<u>RESULTS</u>
Description	Colourless transparent liquor.	Colourless transparent liquor.
Identification	The retention time of the Substance should match with that of reference substance.	The retention time of the Substance matches with that of reference substance.
Purity (BY GC)	NLT 98.00 %	99.46%
RRT 0.85	NMT 0.50 %	0.09%
RRT 1.38	NMT 0.50 %	N/D
RRT 1.42	NMT 0.04 %	0.02%
RRT 2.25	NMT 1.00%	0.01%
Individual impurity	NMT 0.50 %	0.27%
Total Impurity	NMT 2.0 %	0.54%

The sample complies as per above limits.

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K-P. Rana
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