

**M.L.A. Industries Pvt. Ltd. (Pharma Division)**

111/230, HARSH NAGAR, KANPUR, Tel. : (0512)-2555292

Website: www.mlagroup.com, E-mail: sales@mlagroup.com

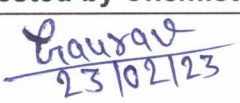
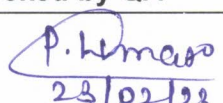
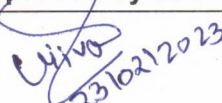
(Drug License No. UP78250000012)

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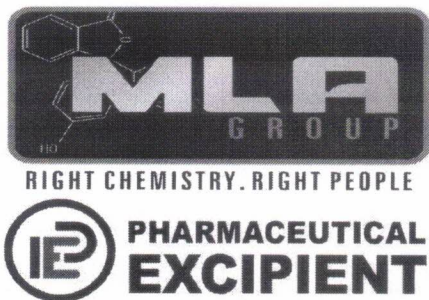
CERTIFICATE OF ANALYSIS

CUSTOMER : M/S	INVOICE : Sample
PRODUCT : ZINC OXIDE	GRADE : IP
BATCH NO. : Zo-05C022023	DATE : 23/02/2023
Date of MFG. : 05/02/2023	Date of EXP : 5 years from MFG

PROPERTY	UNIT	SPECIFICATIONS	TEST VALUE
Description	-	A soft white or faintly yellowish white amorphous powder. Free from grittiness. It gradually absorbs carbon dioxide from air.	Complies to IP
Assay / Purity	%	99-100.5 %	99.92
Identification	-	A –it becomes yellow when strongly heated & yellow colour disappear on cooling B –Dissolve 0.1gm sample in 1.5 ml of 2M HCL & dilute with 5 ml of H2O. The soln gives reaction of zinc salt.	Test A Passes Test B Passes
Alkalinity	-	NMT 0.3 ml of 0.1 M HCL requires to discharge the colour of phenolphthalein	Complies to IP
Carbonate and colour of solution	-	On dissolving in 2M HCl there should be no effervescence & soln is not more opalescent than opalescence std. OS2 & colour less as per prescribed method.	Complies to IP
Arsenic	ppm	5.0 (max.)	< 5.0 ppm
Lead	-	Passes the prescribed test for lead.	Test Passes
Iron	ppm	400 (max.)	< 400 ppm
Loss on Ignition	%	1.0 % Max at 500°C Temp.	0.22

Tested by Chemist	Checked by QA	Approved by Lab Head
 23/02/23	 23/02/23	 23/02/2023
Mr. Gaurav Sen	Mr. Prince Srivastava	Mr. Ujjval Tiwari





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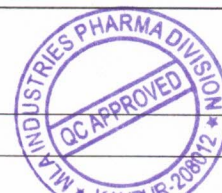
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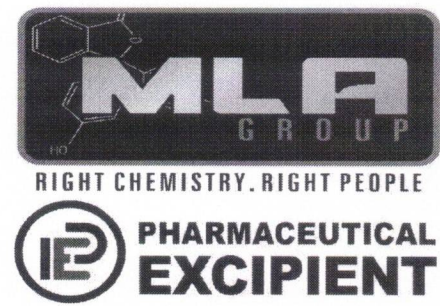
CERTIFICATE OF ANALYSIS

CUSTOMER : M/s	INVOICE : Nil
PRODUCT : ZINC OXIDE	GRADE : BP-2022
BATCH NO. : ZO-16F022023	DATE : 28/02/2023
Date of MFG. : 16/02/2023	Date of EXP : 5 years from MFG

PROPERTY	UNIT	SPECIFICATIONS	TEST VALUE
Appearance	-	Soft, white or faintly yellowish-white, amorphous powder, free from gritty particles.	Passes
Solubility	-	Practically Insoluble in water and in ethanol (96 per cent) . It Dissolves in dilute Mineral Acids.	Complies to BP
Identification	-	A –it becomes yellow when strongly heated & yellow colour disappear on cooling. B – Sol. Gives the reaction of zinc..	Test A - Passes Test B - Passes
Alkalinity	-	NMT 0.3 ml of 0.1 M HCL requires to Change the colour of indicator Indicator.	0.2 ml of 0.1 M HCL requires to Change the colour of indicator Indicator
Carbonates and Substances insoluble in acids	-	Should be pass the prescribed test.	Complies to BP
Cadmium	ppm max	5.0	0.16
Thallium	ppm max	5.0	<5.0
Iron	ppm max	200.0	14.94
Lead	ppm max	10.0	5.28
Loss on Ignition	%	1.0 % Max at 500°C Temp.	0.19
Assay	%	99.0 – 100.5 % (Ignited Substance) As Zn	99.97

Tested by Chemist	Checked by QA	Approved by Lab Head
<i>Gaurav Sen</i> 28/02/23	<i>P. Kumar</i> 28/02/23	<i>Ujjval Tiwari</i> 28/02/23
Mr. Gaurav Sen	Mr. Prince Srivastava	Mr. Ujjval Tiwari



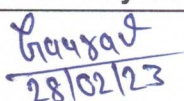
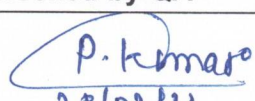
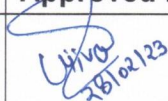


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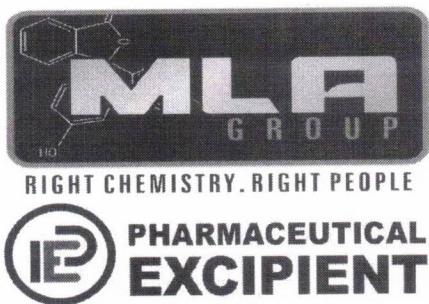
CERTIFICATE OF ANALYSIS

CUSTOMER : M/s	Invoice : Sample
PRODUCT : ZINC OXIDE	GRADE : USP - 43
BATCH NO. : ZO-16A022023	DATE : 28/02/2023
Date of MFG. : 16/02/2023	Date of EXP : 5 years from MFG

PROPERTY	UNIT	SPECIFICATIONS	TEST VALUE
Description	-	A soft white or faintly yellowish white amorphous powder. Free from grittiness. It gradually absorbs carbon dioxide from air.	Complies to USP
Identification	-	A –it becomes yellow when strongly heated & yellow colour disappear on cooling.	Test A Passes
		B – The retention time of the zinc peak of the Sample solution corresponds to that of the Standard solution, as obtained in the Assay.	Test B Passes
Assay / Purity	%	NLT 98.0% and NMT 102.0% of zinc oxide (ZnO), On ignited, Basis	99.94
Arsenic	ppm	6.0 (max.)	< 6.0
Lead	-	No turbidity or precipitate is produced.	Test Passes
Iron & Other Heavy metals	--	White precipitates are formed in both aliquots.	Test Passes
Loss on Ignition	%	1.0 % Max at 500° to constant weight.	0.15
Alkalinity	-	If a red color is produced, NMT 0.30 mL of 0.10 N hydrochloric acid is required to discharge it.	Complies to USP
Carbonate and color of solution	-	No effervescence occurs, and the resulting solution is clear and colorless.	Complies to USP

Tested by Chemist	Checked by QA	Approved by Lab Head
 28/02/23	 28/02/23	 28/02/23
Mr. Gaurav Sen	Mr. Prince Srivastava	Mr. Ujjval Tiwari





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CERTIFICATE OF ANALYSIS

CUSTOMER : M/s	INVOICE : Sample
PRODUCT : ZINC OXIDE	GRADE : EP
BATCH NO. : ZO-11F022023	DATE : 01/03/2023
Date of MFG. : 11/02/2023	Date of EXP : 5 years from MFG

PROPERTY	UNIT	SPECIFICATIONS	TEST VALUE
Description	-	Appearance: soft, white or faintly yellowish-white, amorphous powder, free from gritty particles.	Complies with EP
Solubility	-	practically insoluble in water and in ethanol (96 percent). It dissolves in dilute mineral acids.	Complies with EP
Identification	-	A. It becomes yellow when strongly heated; the yellow colour disappears on cooling. B. Dissolve 0.1 g in 1.5 mL of dilute hydrochloric acid R and dilute to 5 mL with water R. The solution gives the reaction of zinc	Passes Passes
Alkalinity	-	0.1 M hydrochloric acid is required to change the colour of the indicator.	Passes
Carbonates and substances insoluble in acids.	-	the solution is not more opalescent than reference suspension II	Complies with EP
Arsenic	ppm	Not more than 5 ppm	<5.0
Cadmium	ppm	Not more than 10 ppm	0.89
Iron	ppm	Not more than 200 ppm	26.59
Lead	ppm	Not more than 50 ppm	6.87
Loss on Ignition	%	Not more than 1.0%, (1 g, 500°C, 1 hour).	0.19
Assay	%	contains not less than 99.0- 100.5 %	99.92

Tested by Chemist	Checked by QA	Approved by Lab Head
<i>Gaurav Sen</i> 01/03/23	<i>P. Kumar</i> 01/02/23	<i>Ujjval Tiwari</i> 01/03/23
Mr. Gaurav Sen	Mr. Prince Srivastava	Mr. Ujjval Tiwari





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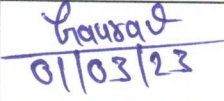


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CERTIFICATE OF ANALYSIS

CUSTOMER :	INVOICE :
PRODUCT : Zinc Oxide	GRADE : JP
BATCH NO. : ZO- 19E022023	DATE : 01/03/2023
Date of MFG. : 19/02/2023	Date of EXP: 5 years from MFG

PROPERTY	UNIT	SPECIFICATIONS	TEST VALUE
Description	-	Zinc Oxide occurs as a white, amorphous powder. It is odorless and tasteless. it It gradually absorbs carbon dioxide from air.	Complies to JP
Solubility	-	It is practically insoluble in water, in ethanol (95), in acetic acid (100) and in diethyl ether. It dissolves in dilute hydrochloric acid and in sodium hydroxide TS.	Complies to JP
Identification	-	Test A – Heat Zinc Oxide strongly: a yellow color develops on strong heating, and disappears on cooling. Test B - A solution of Zinc Oxide in dilute hydrochloric acid (1 in 10) responds to the Qualitative Tests for zinc salt.	Passes Passes
Carbonate, and clarity and color of solution	-	the solution obtained is clear and colorless.	Passes
Alkali	-	add 2 drops of phenolphthalein TS and 0.20 mL of 0.1 mol/L hydrochloric acid VS: no color develops.	Passes
sulfate	%	not more than 0.096%	<0.096
iron	ppm	Not more than 10 ppm	<10.0
Lead	-	no turbidity is produced.	Passes
Arsenic	ppm	Not more than 4 ppm	<4.0
Loss on ignition	%	Not more than 1.0% (1 g, 850°C, 1 hour).	0.21
Assay	%	contains not less than 99.0% of ZnO.	99.85

Tested by Chemist	Checked by QA	Approved by Lab Head
 01/03/23	 01/03/23	 01/03/23
Mr. Gaurav Sen	Mr. Prince Srivastava	Mr. Ujjval Tiwari

