



**Manipal Natural**  
PRIVATE LIMITED

QUALITY CONTROL DEPARTMENT

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**TITLE: PRODUCT SPECIFICATION**

<b>Product Name</b>	: CURCUMIN EXTRACT 95%	<b>Doc No</b>	: MN/QCD/PS/CL-P/061
<b>Botanical Name</b>	: <i>Curcuma longa L</i>	<b>Effective Date</b>	: 03/06/2022
<b>Plant Part used</b>	: Dried Rhizomes	<b>Revision No</b>	: 00
<b>Standardization</b>	: Curcuminoids	<b>Revision Date</b>	: -
<b>Country of origin</b>	: India	<b>Page No</b>	: Page 1 of 1


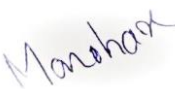

**SPECIFICATION**

S No	PARAMETERS	LIMITS	PROTOCOL
<b>1.0</b>	<b>Organoleptic characteristics</b>		
1.1	Colour	Orange yellow to slightly reddish yellow	Visual
1.2	Odour	Characteristic	Organoleptic
1.3	Taste	Characteristic	Organoleptic
1.4	Texture	Free flowing powder without lumps	Visual
<b>2.0</b>	<b>IDENTIFICATION</b>		
2.1	By High Performance Liquid Chromatography	HPLC profile to comply with reference material with respect to all major peaks	By HPLC
<b>3.0</b>	<b>PHYSICO CHEMICAL TEST PARAMETERS</b>		
3.1	Loss on drying (%w/w)	Not more than 2.0	USP< 731>
3.2	Loose bulk density (g/ml)	Between 0.20 and 0.60	USP<616>
3.3	Tapped bulk density (g/ml)	Between 0.30 and 0.90	USP<616>
<b>4.0</b>	<b>PARTICLE SIZE ANALYSIS</b>		
4.1	Material passing through #40 mesh (% w/w)	Not less than 95.0	USP <786>
<b>5.0</b>	<b>PHYTOCHEMICAL ANALYSIS (CHEMICAL)</b>		
5.1	Total Curcuminoids (% w/w) on dried basis	Not less than 95.0	By HPLC
<b>6.0</b>	<b>TEST FOR CONTAMINANTS</b>		
<b>6.1</b>	<b>Heavy Metal Analysis</b>		
6.1.1	Lead (ppm)	Not more than 3.0	By ICP-OES/MS
6.1.2	Arsenic (ppm)	Not more than 1.0	
6.1.3	Cadmium (ppm)	Not more than 1.0	
6.1.4	Mercury (ppm)	Not more than 0.1	
<b>6.2</b>	<b>Microbiological Analysis</b>		
6.2.1	Total Aerobic Microbial Count (cfu/g)	Not more than 5000	USP <2021> & <2022>
6.2.2	Total Yeast and Mould count (cfu/g)	Not more than 100	
6.2.3	<i>Escherichia coli</i>	To be absent/10g	
6.2.4	<i>Salmonella</i>	To be absent/10g	
6.2.5	<i>Staphylococcus aureus</i>	To be absent/10g	
6.2.6	<i>Pseudomonas aeruginosa</i>	To be absent/10g	

**OTHER INFORMATION:**

S No	Declaration	Status
1.	<b>Cultivated or wild crafted</b>	Cultivated
2.	<b>Sanitizing treatment</b>	Non-irradiated
3.	<b>Genetic Modification Status</b>	GMO Free
4.	<b>Shelf life</b>	36 months from the date of Manufacture
5.	<b>Storage Condition</b>	Store in a cool dry place, preferably room temperature protected from moisture and direct sun light/Heat

**Note:** The product is an herbal origin; there may be slight colour variation because of the geographical and seasonal variation in the raw material.

Prepared By	Approved By	Issued By
Name: Sneha. S.H	Name: Manohar D	Name: Anand.S.Mayachari
Designation: QA Executive	Designation: Manager R & D	Designation: Head QC/QA
Signature: 	Signature: 	Signature: 
Date:03/06/2022	Date: 03/06/2022	Date: 03/06/2022