Citric Acid Monohydrate Manufacturing Business.

Business Opportunities in Chemical Industry

Introduction

Citric acid is a weak organic acid with the formula C6H8O7. It is a natural preservative/conservative and is also used to add an acidic or sour taste to foods and drinks. In biochemistry, the conjugate base of citric acid, citrate, is important as an intermediate in the citric acid cycle, which occurs in the metabolism of all aerobic organisms. It consists of 3 carboxyl (R-COOH) groups.

Citric acid is a commodity chemical, and more than a million tonnes are produced every year by fermentation. It is used mainly as an acidifier, as a flavoring, and as a chelating agent.

Citric Acid is used in Food, Beverages, Flavor enhancer, Coloring. Citric Acid is used in Preservative, Detergents, Cleaners, Pharmaceuticals, Cosmetic. Citric Acid is used in Industrial and Chemical processing. Citric Acid is used in fluxes for galvanizing, soldering & tinning.

Citric Acid Monohydrate is a tricarboxylic acid found in citrus fruits. Citric acid is used as an excipient in pharmaceutical preparations due to its antioxidant properties.

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Application

Citric acid monohydrate was used in the preparation of citric acid solution employed in the acetone method of 68Ga pre-purification and radiolabeling technique.

It may be used:

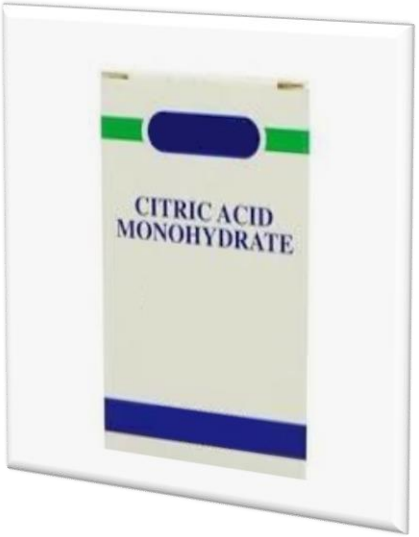
- **As release-modifying agent to improve the release of diltiazem hydrochloride from melt extruded Eudragit RS PO tablets.**
- **To prepare citrate buffer for use in the preparation of platelets for intravital microscopy.**
- **To prepare Tris-citrate buffer employed for the electrophoresis of bacterial enzymes.**

Market Outlook

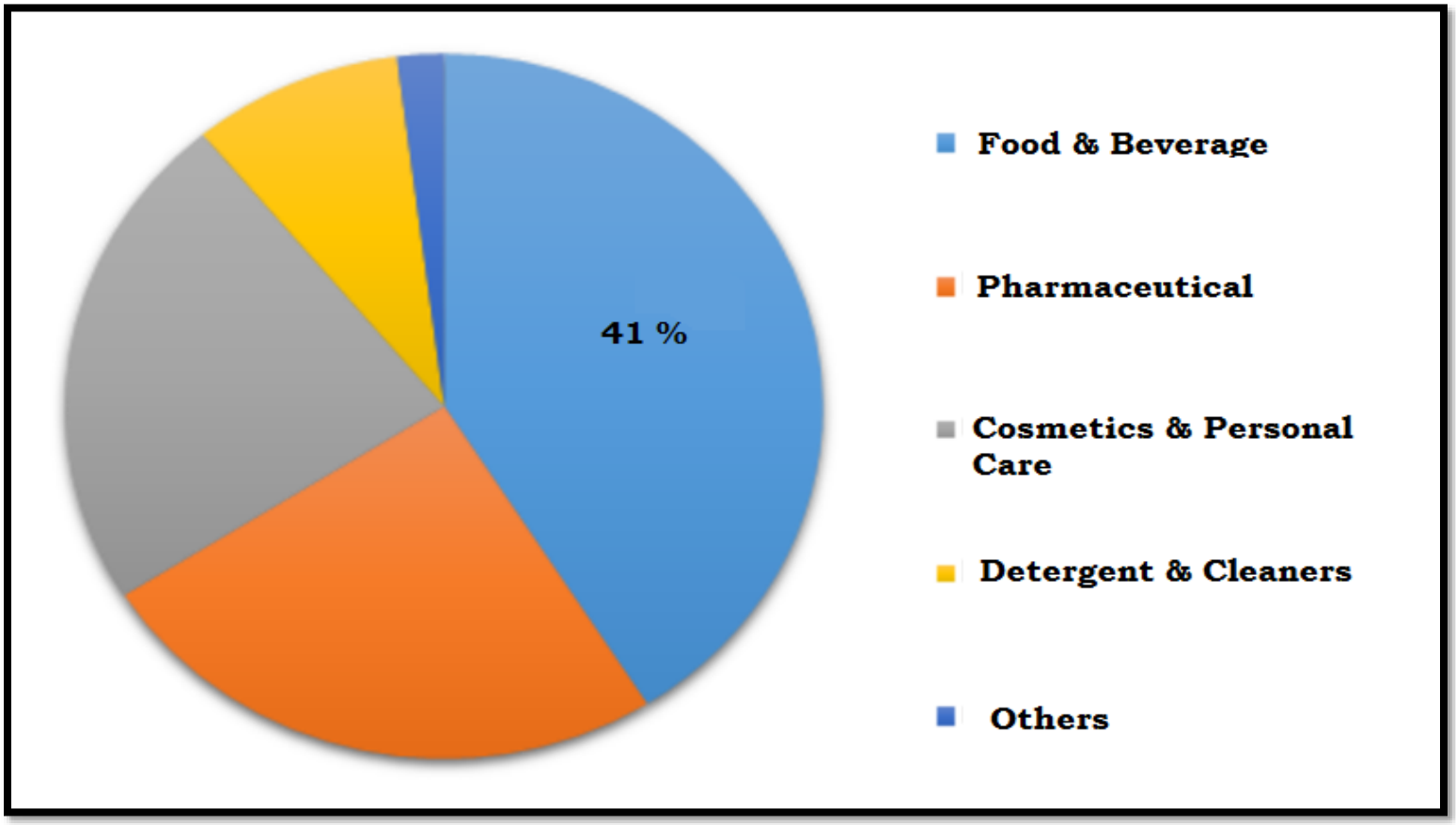
The global citric acid market exceeded the volume of 2 Million Tons in 2018. The market is further projected to reach a volume of nearly 3 Million Tons by 2024, growing at a CAGR of 4% during 2019-2024. Due to its various advantageous properties, citric acid is widely used as an additive in food and beverages, personal care products, cleaners and detergents, adhesives and sealants, coatings, inks, plastics and polymers, pharmaceutical products and clinical nutrition, feed and pet food items.

The rising demand for citric acid from the food and beverage industry as a food additive is set to remain the key driving factor for the growth of the global citric acid market during the forecast period. The significant demand for carbonated soft drinks and convenience and ready-to-eat products due to the growing urban population and changing consumer trends are contributing in a large way to the demand for citric acid in the food and beverage industry.

Increasing industrial preferences for additives derived from natural sources over their synthetic counterparts are likely to contribute to product demand in the food and beverage, cosmetics, and pharmaceuticals industries. For instance, there is a growing demand for citric acid in the detergents and cleaners segment due to its non-toxic, non-corrosive, and biodegradable characteristics. The segment is expected to showcase substantial growth during the forecast period.



Global Citric Acid Market Share in 2017, by Application

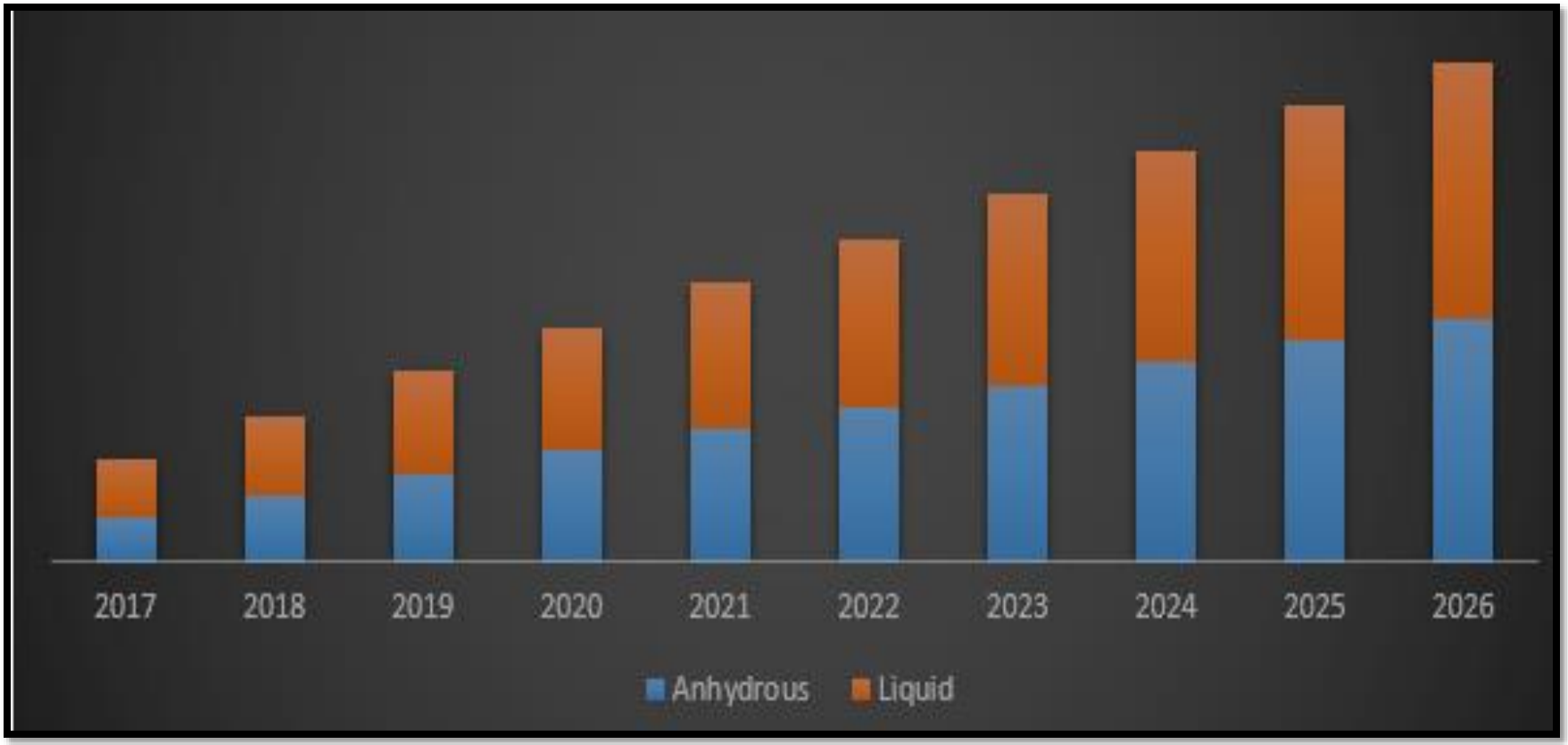


High demand for the product to preserve food is expected to be a key driver for the industry growth. In addition, the growing demand for the compound in pharmaceutical industry for the manufacturing of digestive medicines is expected to positively drive the market over the forecast period. Citric acid helps manufacturers in offering a clean label to their products, and satisfying consumer demand for safe and permitted ingredients within their budget. However, manufacturers face intense competition from inter- and intra-industry peers in sourcing raw material, ultimately restraining the market growth to a significant extent.

Citric acid is also used in the production of detergents and cleaners. Various environmental norms have resulted in the replacement of phosphate builders with citric acid in many formulations. Unlike phosphates, citric acid does not contribute to the eutrophication of water bodies and is desirable from an environmental perspective. Moreover, availability in abundance, low price, and large-scale applications boost the growth of the market. Molasses, waste feedstock and fruit peel, the raw materials used for the production of citric acid is cheap and is its availability is practically unlimited. However, the threat from lactic acid as a substitute to citric acid is likely to restrain the growth of the growth of the global citric acid market over the forecast period.

The significant demand for carbonated soft drinks and convenience and ready-to-eat products due to the growing urban population and changing consumer trends are contributing in a large way to the demand for citric acid in the food and beverage industry. Increasing industrial preferences for additives derived from natural sources over their synthetic counterparts are likely to contribute to product demand in the food and beverage, cosmetics, and pharmaceuticals industries. For instance, there is a growing demand for citric acid in the detergents and cleaners segment due to its non-toxic, non-corrosive, and biodegradable characteristics. The segment is expected to showcase substantial growth during the forecast period.

Global Citric Acid Market by Form



Citric acid is also used in dairy products, jellies, jams, and cake fillings to embed a tart-like flavor and to increase the shelf life. The global citric acid market analysis showed that growth in sales of detergents and household cleaning products is also contributing significantly to the sales of the chemical. Changing lifestyle and consumer inclination for easy-to-handle sophisticated products is, in turn, propelling the global citric acid market growth.

Citric Acid

Demand : Past and Future	
Year	(In '000 Metric Tonne)
1990-91	7.43
2000-01	11.30
2001-02	11.80
2002-03	12.37
2003-04	13.00
2004-05	13.70
2005-06	14.45
2006-07	15.30
2007-08	16.30
2008-09	17.35
2009-10	18.60
2010-11	20.00
2011-12	21.40
2012-13	22.73
2013-14	24.16
2014-15	25.67
2015-16	27.30
2016-17	28.75
2017-18	30.10
2018-19	32.65
2019-20	34.78
2024-25	45.50

Machinery Photographs

Molasses Tank

Boiling Vessel

Spore Propagation Tank

Fermentation Tank

Project at a Glance

COST OF PROJECT				MEANS OF FINANCE			
Particulars	Existing	Proposed	Total	Particulars	Existing	Proposed	Total
Land & Site Development Exp.	0.00	45.00	45.00	Capital	0.00	398.91	398.91
Buildings	0.00	453.00	453.00	Share Premium	0.00	0.00	0.00
Plant & Machineries	0.00	774.40	774.40	Other Type Share Capital	0.00	0.00	0.00
Motor Vehicles	0.00	20.00	20.00	Reserves & Surplus	0.00	0.00	0.00
Office Automation Equipments	0.00	139.00	139.00	Cash Subsidy	0.00	0.00	0.00
Technical Knowhow Fees & Exp.	0.00	40.00	40.00	Internal Cash Accruals	0.00	0.00	0.00
Franchise & Other Deposits	0.00	0.00	0.00	Long/Medium Term Borrowings	0.00	1196.73	1196.73
Preliminary& Pre-operative Exp	0.00	5.00	5.00	Debentures / Bonds	0.00	0.00	0.00
Provision for Contingencies	0.00	75.14	75.14	Unsecured Loans/Deposits	0.00	0.00	0.00
Margin Money - Working Capital	0.00	44.10	44.10				
TOTAL	0.00	1595.64	1595.64	TOTAL	0.00	1595.64	1595.64

Project at a Glance

Year	Annualised		Book Value	Debt	Dividend	Retained Earnings		Payout	Probable Market Price	P/E Ratio	Yield Price/ Book Value
	EPS	CEPS	Per Share		Per Share	Per Share				No.of Times	
	`	`	`	`	`	%	`	%	`		%
1-2	5.20	10.04	15.20	24.00	0.00	100.00	5.20	0.00	5.20	1.00	0.00
2-3	8.02	12.22	23.21	18.00	0.00	100.00	8.02	0.00	8.02	1.00	0.00
3-4	10.79	14.44	34.00	12.00	0.00	100.00	10.79	0.00	10.79	1.00	0.00
4-5	13.48	16.66	47.48	6.00	0.00	100.00	13.48	0.00	13.48	1.00	0.00
5-6	16.07	18.85	63.55	0.00	0.00	100.00	16.07	0.00	16.07	1.00	0.00

Project at a Glance

Year	D. S. C. R.			Debt / - Deposits Debt	Equity as-Equity	Total Net Worth	Return on Net Worth	Profitability Ratio					Assets Turnover Ratio	Current Ratio
	Individual	Cumulative	Overall					GPM	PBT	PAT	Net Contribution	P/V Ratio		
	(Number of times)			(Number of times)		%	%	%	%	%		%		
Initial				3.00	3.00									
1-2	1.43	1.43		1.58	1.58	1.73		32.29%	19.39%	14.40%	1251.24	86.89%	0.89	0.90
2-3	1.72	1.57		0.78	0.78	0.89		38.03%	28.35%	19.03%	1459.18	86.86%	0.98	1.62
3-4	2.07	1.72	2.07	0.35	0.35	0.44		41.88%	34.61%	22.41%	1667.62	86.86%	1.00	2.55
4-5	2.49	1.89		0.13	0.13	0.19		44.47%	39.06%	24.89%	1876.06	86.85%	0.96	3.65
5-6	2.99	2.07		0.00	0.00	0.06		46.17%	42.22%	26.71%	2084.50	86.85%	0.90	13.14

Project at a Glance

BEP	
BEP - Maximum Utilisation Year	5
Cash BEP (% of Installed Capacity)	46.07%
Total BEP (% of Installed Capacity)	51.39%
IRR, PAYBACK and FACR	
Internal Rate of Return .. (In %age)	27.84%
Payback Period of the Project is (In Years)	2 Years 3 Months
Fixed Assets Coverage Ratio (No. of times)	2.855

Major Queries/Questions Answered in the Report?

1. What is Citric Acid Monohydrate Manufacturing industry ?

2. How has the Citric Acid Monohydrate Manufacturing industry performed so far and how will it perform in the coming years ?

3. What is the Project Feasibility of Citric Acid Monohydrate Manufacturing Plant ?

4. What are the requirements of Working Capital for setting up Citric Acid Monohydrate Manufacturing plant ?

5. What is the structure of the Citric Acid Monohydrate Manufacturing Business and who are the key/major players ?

6. What is the total project cost for setting up Citric Acid Monohydrate Manufacturing Business?

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Tags

#Citric_Acid_Monohydrate, #Industrial_Production_of_Citric_Acid, #Production_of_Citric_Acid, Citric Acid Production, #Commercial_Production_of_Citric_Acid, Process for Preparation of Citric Acid Monohydrate, #Process_for_Manufacture_of_Citric_Acid_Monohydrate, Citric Acid Production and Application, Citric Acid Monohydrate Making Business, Industrial Uses of Citric Acids, Citric Acid Production Flow Chart, #Citric_Acid_Monohydrate_Manufacture, Citric Acid Production Process, Citric Acid Industry, #Citric_Acid_Monohydrate_Manufacturing_Process, Citric Acid Manufacturing Process, Manufacturing of Citric Acid, Citric Acid Manufacturing Plant, #Citric_Acid_Monohydrate_Manufacturing_Process, Citric Acid Monohydrate Manufacturing, Manufacture of Citric Acid Monohydrate, #Detailed_Project_Report_on_Citric_Acid_Monohydrate_Manufacturing, Project Report on Citric Acid Monohydrate Manufacturing, Pre-Investment Feasibility Study on Citric Acid Production, Techno-Economic feasibility study on Citric Acid Production, #Feasibility_report_on_Citric_Acid_Monohydrate_Manufacturing, Free Project Profile on Citric Acid Production Business, Project profile on Citric Acid Monohydrate Manufacturing, Download free project profile on Citric Acid Monohydrate Manufacturing

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