

LACTIC ACID

INVESTMENT OPPORTUNITY

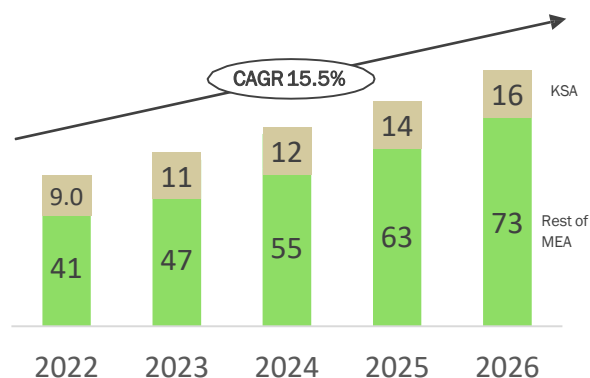
Specialty Chemicals



OPPORTUNITY DESCRIPTION: Setup manufacturing plant for lactic acid and its derivatives in KSA

DEMAND

MARKET SIZE, USD Mn



KEY DEMAND DRIVERS

- Increasing number of cosmetic and cleaning formulations, requiring Lactic Acid
- Ongoing advancements and increasing R&D activities in pharmaceutical sector. Used as a chiral intermediate, pH regulator, metal sequestration agent in pharma products
- Lactic acid demand in the food & beverage market is growing as it is recognized as a safe food substance

INVESTMENT HIGHLIGHTS

- Expected Investment size of USD 3 to 5 Mn
- Plant capacity: 2-3 ktpa
- Expected IRR*: 10-15%
- Payback period*: 3-6 years
- Job Creation: 3-5 Employees
- GDP Impact: 0.8-1.5 Mn USD
- Location (Region): Jubail/Yanbu

INVESTMENT OVERVIEW

VALUE PROPOSITION

- Unlocks downstream opportunities across food & beverages, pharmaceuticals, personal care, packaging and industrial
- KSA has a strategic geographic location to serve emerging markets like Middle East, Africa, Europe and Asia.
- KSA is one of the largest chemical producers in the world and contributes ~10% to the global output
- Scope of local production to substitute import of Lactic acid

MARKET OVERVIEW

GLOBAL TRENDS

- Moderately fragmented market with key players. They are focusing on capacity expansion, geographic expansion and product development to gain higher market share
- Leading manufacturers of lactic acid are BASF, Galactico, Futerro and Musashino Chemical
- Asia-pacific is fastest growing market for Lactic Acid

RAW MATERIALS

- Acetaldehyde
- Hydrogen cyanide
- Sulfuric acid



SUPPLY

SCALABILITY AND LOCALIZATION

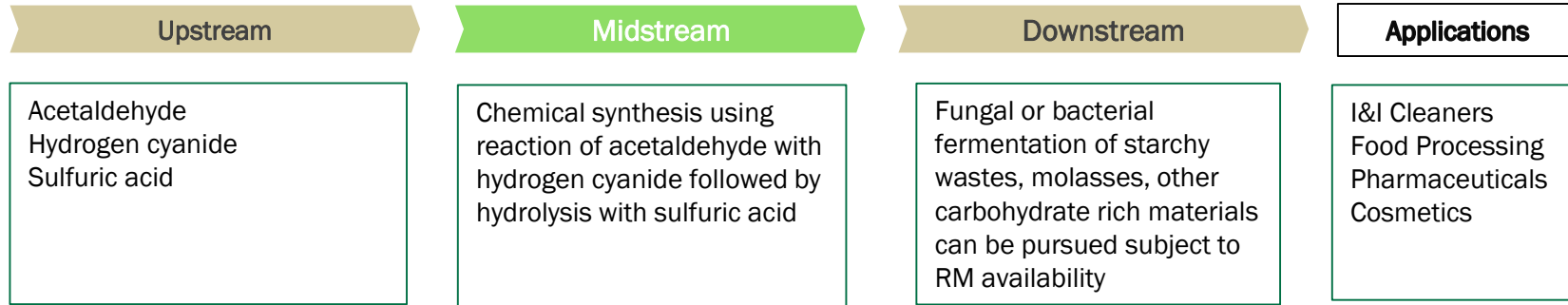
Grade: Low Medium High

- Some key raw materials are available in KSA; e.g., Chemanol has a 12KTPA plant capacity for Acetaldehyde, and there are several manufacturers of sulfuric acid
- High capital investments are needed owing to the fermentation process involved and the stringent hygienic conditions required
- Large players are heavily investing in R&D to formulate lactic acid

IMPORT DEPENDENCY

- Import of 5.9 Mn USD in KSA in 2019
- No local players exist in the KSA

VALUE CHAIN



KEY STAKEHOLDERS



ENABLING FACTORS

ENABLERS & INCENTIVES

- Custom land options from RCJY AND Modon
- Up to 75% of project financing by Saudi Industrial Development Fund (SIDF)
- 2-year grace period for the repayment of loans
- Expat worker levy waived-off for industrial manufacturers until October 2024

COST OF DOING BUSINESS IN KSA

Factor	Ranking amongst regional peers
Electricity tariffs for industrial players	\$48 /MWh
Productivity adjusted wages	\$3.3 /hour
Logistics Performance Index (1-5)	3.2
Construction Costs (Indexed to US, % 0 is cheapest)	74
Ease of getting credit (0-100)	50

Bottom 25% | Top 75% | Top 50% | Top 25%

DEFINITIONS

#	SCORECARD SECTION	DEFINITIONS
1	Market size	Size of market in value/volume in KSA and/or Region (MENA/GCC) covering future projections based on available estimates from published /government sources
2	Business drivers	A select number of factors that will influence future demand for the related product/service
3	Investment highlights	An overview of key financial metrics summarizing the investment opportunity along with the expected return based on the suggested investment size
4	Value proposition	Summary of key differentiators that position KSA as a strategic choice over other regional/global peers
5	Market readiness	An overview of KSA market structure, market maturity and level of participation by local and global players
6	Global trends	Latest business developments within the sector/product category
7	Scalability and localization	Ease of scaling the business across the value chain or into new adjacent products or geographies that would maximize the opportunity's investment returns and the ability and potential to locally manufacture the product and its components
8	Import dependency	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
9	Value chain analysis	The process or activities that would potentially need to be carried out to deliver the underlying product or service
10	Key stakeholders	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
11	Enablers	Factors that enable investment in the underlying opportunity
12	Cost of doing business in KSA	Key factors that position KSA as a competitive destination for investment in the region. Productivity adjusted wages do not include cost of \$1.23/hour towards annual recurring charges including work permit, resident identity (iqama) and health insurance

DISCLAIMER

- This material must be used only to access information, and the information must not be construed, under any circumstances, explicitly or implicitly, as an offer to sell or a solicitation to buy or sell or trade in any opportunity herein mentioned.
- Ministry of Investment (MISA) has no undertaking to update these materials after the date, with the understanding that such information may become outdated or inaccurate.
- Mentioned information in this material is obtained from reliable sources but its accuracy and reliability are in no way guaranteed. No guarantee of any kind is tacit or explicit when projections of future conditions are attempted. MISA has used public/or confidential data and assumptions and has not independently verified the data and assumptions used in the analyses. Changes in underlying data or operating assumptions will clearly impact the analyses and conclusions.
- The financial evaluations, projected market and financial information, and conclusions contained in these materials are based upon standard methodologies, are not definitive projections, and are not guaranteed by MISA
- The content of this material must not be construed as an implied promise or guarantee for profit or limited loss express or implied by or from MISA or any of its officers, directors, employees and affiliates. All mentioned investments in this material are subject to risk, which should be considered prior to making any investment decisions
- MISA shall have no liability whatsoever to any third party, and hereby any third party waives any rights and claims it may have at any time against MISA with regard to this material, any services or other materials, including the accuracy or completeness thereof.

CONNECT WITH US FOR MORE DETAILS:

Petrochemicals@misa.gov.sa

investsaudi.sa



@investsaudi

