

Polyaluminum Chloride (PAC)

INVESTMENT OPPORTUNITY SCORECARD

CHEMICALS

October 2020

CHEMICALS

Polyaluminum Chloride (PAC)

Public / متاح

High Potential

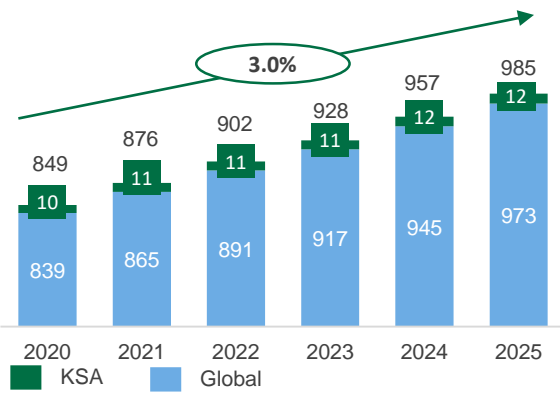
Moderate Potential

Low Potential

OPPORTUNITY DESCRIPTION: Opportunity to develop a Polyaluminum Chloride (PAC) production facility of ~15 KMT in KSA to cater regional and global market

DEMAND

MARKET SIZE, KMT



INVESTMENT HIGHLIGHTS

- Expected investment size of USD 25 Mn
- Plant capacity: 15 KMT
- Expected IRR: More than 12%

INVESTMENT OVERVIEW

VALUE PROPOSITION

- KSA has a strategic location and access to feedstock enabling it to serve emerging markets like India, Africa and South East Asia
- KSA can leverage favorable trade agreements (eg: GAFTA) and strong logistics infrastructure to enhance export capability
- KSA is one of the largest chemical producers in the world and contributes ~10% to the global output
- Opportunity for first mover advantage due to non-existent local production of polyaluminum chloride and lack of competition from major global manufacturers

KEY DEMAND DRIVERS

- Largely dependent on demand for waste water treatment and water purification, followed by pulp and paper industry
- Sanitary waste water treatment plant expansion is planned in Al Jubail, which will drive the demand for Polyaluminum Chloride (PAC)
- Demand for PAC is expected to grow due to multiple water treatment projects, and general awareness regarding sanitation, hygiene and increasing trend towards water recycling

MARKET OVERVIEW

GLOBAL TRENDS

- Poyaluminum chloride is an efficient flocculent and coagulant. It is also employed in cosmetics and personal care products such as deodorants and antiperspirants, in the treatment of potable water, and for paper sizing
- Manufacturers are increasingly adopting innovative technologies to produce PAC in large quantities so it can be exported to potential consumers across the globe
- Increasing awareness about the use of safe drinking water due to the involvement of and investments by government agencies has led to rising demand for PAC which has successfully replaced alum in most countries
- Regulatory drivers, industrial development and water scarcity will drive growth in developing nations, particularly in China, India and South East Asia
- Wastewater closed loop recycling and wastewater recovery and reuse strategies will drive growth in U.S. and other developed regions because of increased occurrences of drought and deteriorating quality of water sources

CHEMICALS

Polyaluminum Chloride (PAC)

Public / متاح

SUPPLY

SCALABILITY AND LOCALIZATION

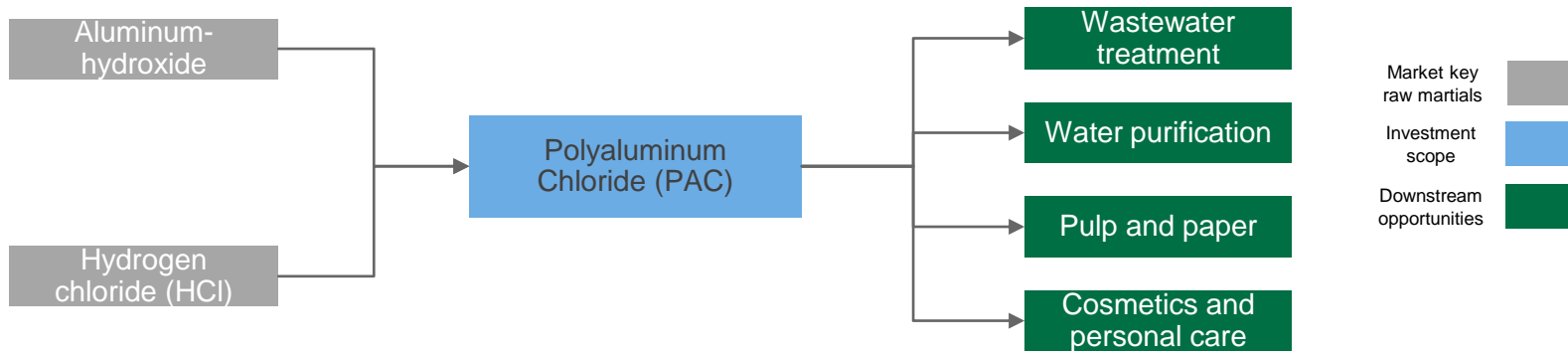
Grade: Low Medium High

- Easy access to key raw materials in KSA – Aluminum hydroxide, Hydrogen chloride (HCl)
- Aluminum hydroxide is produced by Ma'aden
- HCl is produced by Chlralkali
- PAC production could be a starting point for establishing a wider portfolio of water treatment chemicals in the region

IMPORT DEPENDENCY

- No local production of Polyaluminum Chloride (PAC) in KSA, and 70% of the entire Middle East and Africa region demand is met by imports

Polyaluminum Chloride (PAC) value chain



Key stakeholders



ENABLING FACTORS

ENABLERS

- 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
Customs Clearance Index (1 – 5)	2.7
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	Demand 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	Competitor analysis	List of the local & international players manufacturing the underlying product in Saudi Arabia and their market share
7	Global trends	Latest business developments within the sector/product category
8	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
9	Import dependency	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
10	Value chain analysis	The process or activities that would potentially need to be carried out to deliver the underlying product or service
11	Key stakeholders	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
12	Enablers	Factors that enable investment in the underlying opportunity
13	Cost of doing business in KSA	Key factors that position KSA as a competitive destination for investment in the region

CONNECT WITH US FOR MORE DETAILS:

Petrochemicals@misa.gov.sa

investsaudi.sa



@investsaudi

