

# Phosphorous Trichloride

## INVESTMENT OPPORTUNITY SCORECARD

### CHEMICALS

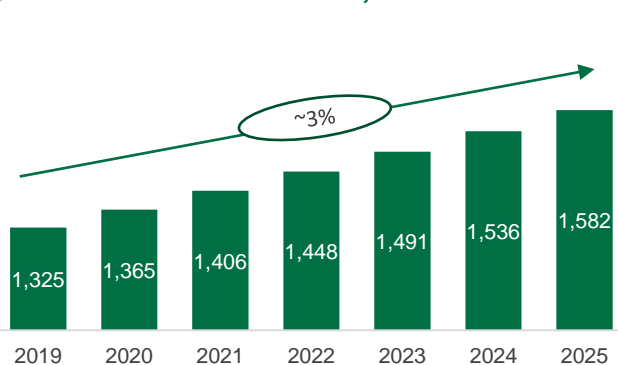
Aug 2021



**OPPORTUNITY DESCRIPTION:** Opportunity to setup Phosphorous Trichloride manufacturing facility of 30 KMT in KSA to cater global demand

## DEMAND

Global Demand, KMT



## INVESTMENT HIGHLIGHTS

- Expected investment size of USD 85 Mn
- Plant capacity: 30 KMT
- Expected IRR: More than 12%

## INVESTMENT OVERVIEW

### VALUE PROPOSITION

- KSA is one of the largest chemical producers in the world and contributes ~10% to the global output
- KSA is strategically located at the crossroads of several markets that have high demand for chemical products
- KSA benefits from having an abundant access to raw materials and a high standard of infrastructure that is continuously being improved upon
- Opportunity for first mover advantage due to non-existent local production of Propionic Acid and lack of competition from major global manufacturers
- This opportunity has a strategic alignment with vision 2030 and National Industrial Strategy by supporting many sectors such as automotive and food and beverage

## KEY DEMAND DRIVERS

- Existing demand and some downstream industries in place. Also, limited domestic demand growth opportunity. Would be required for downstream POCI3
- The major end use for thermal phosphoric acid was for industrial phosphates, including sodium tripolyphosphate (STPP). Following bans on STPP in household laundry detergent formulations and other domestic uses in many world regions.

## MARKET OVERVIEW

### GLOBAL TRENDS

- Phosphorus trichloride is the largest chemical market for elemental phosphorus, consuming an estimated 288,000 metric tons, or nearly 29% of the total elemental phosphorus.
- The phosphorus and phosphorus chemical industry is currently undergoing major changes, especially in raw materials trade.
- China is the largest consumer, accounting for more than two-thirds of the global market. Chinese capacity for phosphorus trichloride grew at double-digit rates in 2000–10, but slowed to less than 1% per year between 2011 and 2020. However, Chinese consumption of phosphorus trichloride for glyphosate production is forecast to grow marginally at 0.4% per year

# CHEMICALS

## Phosphorous Trichloride

Public / متاح

### SUPPLY

#### SCALABILITY AND LOCALIZATION

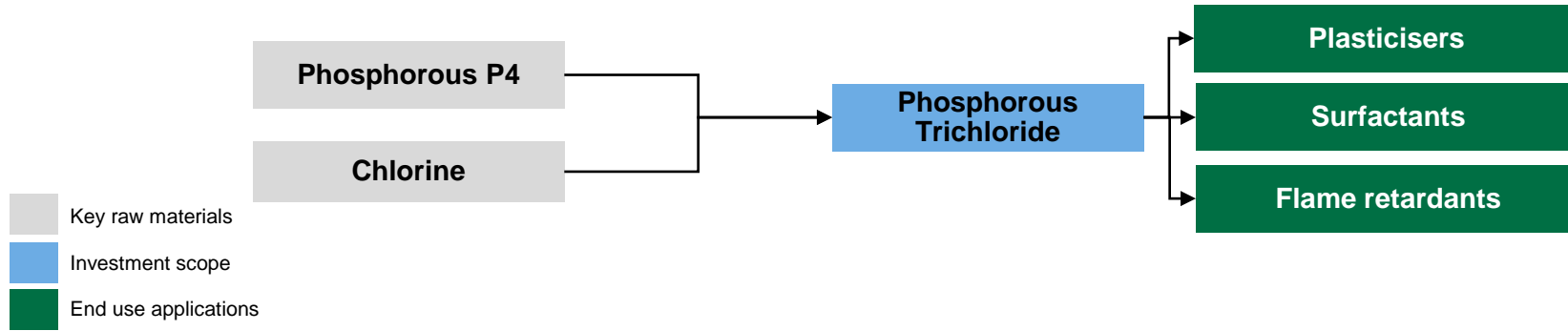
Grade: Low Meduim High

- Easy local access to key the primary raw materials in KSA - Phosphorous P4 and Chlorine are available produced by Maaden and Chloralkali producers.
- White phosphorus can be easily transported to Al Jubail. It acts as an intermediate to flame retardants, plasticizers, and surfactants.
- These industries are in place in Al Jubail/Riyadh where it will synergize with the downstream industries.

#### IMPORT DEPENDENCY

- No local production of Phosphorous Trichloride in Saudi Arabia, 100% of the local demand in KSA is met by imports

#### VALUE CHAIN ANALYSIS



#### 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
- HRDF covers 30-50% of Saudi employees monthly salaries (additional 10% for females) for 2 years, provided that it does not exceed USD 4,000

#### 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	<b>Market size</b>	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	<b>Demand drivers</b>	A select number of factors that will influence future demand for the related product/service
3	<b>Investment highlights</b>	An overview of key financial metrics summarizing the investment opportunity along with the expected return based on the suggested investment size
4	<b>Value proposition</b>	Summary of key differentiators that position KSA as a strategic choice over other regional/global peers
5	<b>Market readiness</b>	An overview of KSA market structure, market maturity and level of participation by local and global players
6	<b>Competitor analysis</b>	List of the local & international players manufacturing the underlying product in Saudi Arabia and their market share
7	<b>Global trends</b>	Latest business developments within the sector/product category
8	<b>Scalability and localization</b>	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	<b>Import dependency</b>	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
10	<b>Value chain analysis</b>	The process or activities that would potentially need to be carried out to deliver the underlying product or service
11	<b>Key stakeholders</b>	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
12	<b>Enablers</b>	Factors that enable investment in the underlying opportunity
13	<b>Cost of doing business in KSA</b>	Key factors that position KSA as a competitive destination for investment in the region

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