

RETAIL EQUITY RESEARCH

Archean Chemical Industries Ltd.

Chemicals

SENSEX: 61,185

NIFTY: 18,203

SUBSCRIBE

Price Range Rs. 386 - Rs. 407

A leading B2B player in the specialty marine chemicals

Archean Chemical Industries Ltd (ACIL) is a leading marine specialty chemical manufacturer focused on producing and exporting bromine, industrial salt, and sulphate of potash. Incorporated in 2003 at Chennai, Tamil Nadu, they are the largest exporter of bromine and industrial salt by volume in India. They produce the products from the brine reserves in the Rann of Kutch, Gujarat, and manufacture the products at the facility near Hajipir in Gujarat. The company markets its products to 18 global customers and to 24 domestic customers.

- The bromine global market size was US\$3.13 billion in CY21, and the market is expected to grow at a CAGR of 6% between CY20 and CY25.
- The global demand for industrial salt was 153 million MT in CY20 and is expected to grow at a CAGR of 3% between CY20 and CY25.
- ACIL is the only manufacturer of sulphate of potash from natural sea brine in India. The global demand for sulphate of potash was 6.9 million MT in CY21 and is expected to grow at a CAGR of 6% between CY21 and CY25.
- In FY22, ACIL has installed capacities of 28,500 MT for bromine, 3,000,000 MT for industrial salt, and 130,000 MT for sulphate of potash, with a capacity utilization of 71%, 120%, and 2%, respectively.
- The revenue has increased at a CAGR of 36% and the revenue from exports has grown at a CAGR of 29% between FY20 and FY22.
- The company has one of the lowest costs of production globally in both bromine and industrial salt. They have an EBITDA margin, PAT margin and ROCE of 41%, 17%, and 13%, respectively, in FY22.
- ACIL is expanding into bromine derivative performance products and is setting up a new facility in the next two-to-three years with an estimated cost of ₹252cr, funded through internal accruals.
- The company intends to add an additional 12,500 MT/annum capacity for bromine production and to expand the manufacturing capacities for industrial salt production by adding an additional washery in FY23.
- ACIL had a D/E of 3.5x in FY22 and Post IPO it will be 0.3x, which enables utilization of internal accruals for investment in business growth and expansion.
- At the upper price band of Rs.407, ACIL is available at a P/E of 26x (FY22), which appears reasonably priced. Considering its consistent top-line & bottom-line growth with cost efficiencies, industry leading position in a high entry barrier industry, expansion plans in product lines and capacities, we assign a "Subscribe" rating on a short to medium term basis.

Purpose of IPO

The IPO consists of a fresh issue and an offer for sale. The objects of the offer are to (i) redemption or earlier redemption, in part or full, of NCDs issued by the company (Rs.644cr) (ii) General corporate purposes.

Key Risks

- They have only one manufacturing facility and rely on three products for revenue generation.
- The top 10 customers generated 60% of revenue from operations, with Sojitz Corporation contributing 20%.

Peer Valuation

Company	MCap(₹ cr)	Sales (₹ cr)	EBITDA(%)	PAT (%)	EPS(₹)	RoE (%)	EV/EBITDA	P/BV	P/E(x)	CMP(₹)
Archean Chemicals Ltd	5,008	1130	41.3	16.7	15.3	72.2	12.8	19.2	26.5	407
Tata Chemicals Ltd	29,054	12,622	18.3	10.0	47.9	7.7	13.0	1.6	23.4	1,122
Deepak Nitrite Ltd.	31,882	6,773	23.7	15.7	77.9	37.5	19.0	9.6	30.0	2,334
Neogene Chemicals Ltd.	3,749	487	17.8	9.2	17.8	14.3	51.1	8.4	79.2	1,414

Source: Geojit Research, Bloomberg; Valuations of ACIL are based on upper end of the price band (post issue), Financials as per FY22 consolidated.

Issue Details	
Date of opening	Nov 09, 2022
Date of closing	Nov 11, 2022
Total No. of shares offered (cr.)	3.59
Post Issue No. of shares (cr)	12.3
Price Band	₹386 - ₹407
Face Value	₹2
Bid Lot	36 Shares
Minimum application for retail (upper price band for 1 lot)	₹ 14,652
Maximum application for retail (upper price band for 13 lot)	₹ 1,90,476
Listing	BSE,NSE
Lead Managers	IIFL Securities, ICICI Securities Ltd, JM Financial

Registrar Link Intime India Pvt. Ltd.

Issue size (upper price)	Rs.cr
Fresh Issue	805.0
OFS	657.3
Total Issue	1,462.3

Shareholding (%)	Pre-Issue	Post Issue
Promoter & Promo. Group	65.6	53.4
Public	34.4	46.6
Total	100	100

Issue structure	Allocation (%)	Size Rs.cr
Retail	10	146.2
Non-Institutional	15	219.4
QIB	75	1,096.7
Employee Reservation	-	-
Total	100	1,462.3

Y.E March (Rs cr) Consol.	FY20	FY21	FY22
Sales	608.2	740.8	1,130.4
Growth (%)	-	21.8	52.6
EBITDA	148.0	262.0	467.2
Margin(%)	24.3	35.4	41.3
PAT Adj.	-	66.6	188.6
Growth (%)	-	-	183.1
EPS	-	5.4	15.3
P/E (x)	-	75.2	26.5
EV/EBITDA	40.5	23.1	12.8
RoE (%)	-	92.0	72.2

Business Operation & Product Offerings

Archean Chemical Industries Ltd (ACIL) has an integrated production facility for bromine, industrial salt, and sulphate of potash operations, located at Hajipir, Gujarat, which is located on the northern edge of the Rann of Kutch brine fields. The facility and its surrounding salt fields and brine reservoirs span approximately 240 sq.km. As of June 30, 2022, the manufacturing facility had an installed capacity of 28,500 MT per annum of bromine, 3,000,000 MT per annum of industrial salt and 130,000 MT per annum of sulphate of potash. In the three months ended June 30, 2022 and in FY22, the capacity utilization was 23.72% and 71.20% of bromine, respectively; 38.54% and 119.54% of industrial salt, respectively; and 0.00% and 1.91% of sulphate of potash, respectively.

Bromine

Elemental bromine is the starting point for manufacturing a wide range of bromine derivative performance products. The bromine and bromine-based business are used in a broad range of end-use industries and have applications in the pharmaceuticals, fumigants and agrochemicals, water treatment, mercury control, flame retardants, additives and oil & gas segments of the chemicals industry. Globally the nations that are the leading in the production of bromine are United States, along with China, India Israel, Jordan and as major producers of elemental bromine. In the three months ended June 30, 2022 and in FY22, FY21 and FY20, ACIL exported 34.88%, 44.88%, 46.10% and 39.79%, respectively, of the bromine production abroad, mainly to China. The balance of the bromine production is sold in the domestic market.

Industrial Salt

Industrial salt is the principal material in chlorine and caustic soda production (together, known as chloralkali) and is widely used in the chemical and food and beverage industries. Chlorine finds end-uses in vinyl, phosgene, chloromethanes, chlorinated C3, water treatment, synthesis HCl, bleach, and other organic and inorganic chemical materials. Caustic soda finds end-uses in alumina, paper and pulp, soap and detergents, textiles, water treatment, bleach, and other organic and inorganic chemical material. In the three months ended June 30, 2022 and in FY22, FY21 and FY20, ACIL exported 100% of the industrial salt production abroad, primarily to customers in Japan and China.

Sulphate of Potash

Sulphate of potash, also known as potassium sulphate, is a high-end, specialty fertilizer for chlorine-sensitive crops. It is one of the most popular forms of low chloride potash, largely due to its high 50-52% K₂O content, which contains about 50% of plant food. It has proven to be particularly effective in the cultivation of citrus fruits, pomegranates, grapes, vegetables, tobacco and nuts. In addition, due to its low saline index, sulphate of potash can also benefit soil containing a high-salt content. Hence, the primary end-use industries for our sulphate of potash includes the agrochemicals industry, which uses our product for the manufacture of fertilizer.

Financial performance

ACIL is the largest exporter of bromine and industrial salt by volume in India and have one of the lowest cost of production globally in both bromine and industrial salt. (*Source: Company Commissioned F&S Report*). The revenue from operations have increased at a CAGR of 36.34% from ₹608.2cr in FY20 to ₹1,130.4cr in FY22. The revenue from operations was ₹400.3cr in the three months ended June 30, 2022. The revenue from exports have grown at a CAGR of 29.11% from ₹476.8cr in FY20 to ₹794.9cr in FY22. ACIL has benefited from the fixed sales contracts with agreed pricing and volumes of approximately 12 months duration with the bromine customers of approximately 24 months duration with the industrial salt customers. In the three months ended June 30, 2022 and in FY22, FY21 and FY20, the EBITDA was ₹161.1cr, ₹467.2cr, ₹262.2cr and ₹148cr, respectively, while the EBITDA margins in the same periods were 40.2%, 41.3%, 35.4% and 24.3%, respectively. The profit/(loss) after tax was ₹84.4cr, ₹188.6cr, ₹66.6cr and ₹(36.2cr) for the three months ended June 30, 2022 and for FY22, FY21 and FY20, respectively, while the PAT margins were 21.09%, 16.68%, 8.99% and (5.96%), respectively, for the same periods. During the three months ended June 30, 2022 and during FY22, FY21 and FY20, the ROCE was 19.4%, 13.1%, 7.7% and 23%, respectively.

Exports

ACIL is an export-oriented business, and, in the three months ended June 30, 2022 and in FY22, FY21 and FY20, 66.74%, 70.32%, 74.41% and 78.41%, respectively, of the revenue from operations were attributed to export sales. In FY22, they exported the products to 13 countries including China, Japan, South Korea, Qatar, and the rest of Asia.

Customers

As of June 30, 2022, ACIL marketed the products to 18 global customers in 13 countries and to 24 domestic customers. The customers include leading domestic and international multinational companies. The major customers include Sojitz Corporation, which is a strategic partner and stakeholder in the Company, Shandong Tianyi Chemical Corporation, Unibrom Corporation, Wanhau Chemicals and Qatar Vinyl Company Limited. In the three months ended June 30, 2022 and in FY22, FY21 and FY20, the largest customer, Sojitz Corporation, contributed 19.29%, 20.56%, 30.51% and 31.94%, respectively, of the revenue from operations; the top 10 customers contributed 60.69%, 61.99%, 75.70% and 77.14%, respectively, of the revenue from operations; and the top 20 customers contributed 81.75%, 80.94%, 88.66% and 92.05%, respectively, of the revenue from operations. In the three months ended June 30, 2022 and in FY22, FY21 and FY20, the industrial salt sales to Sojitz Corporation accounted for 39.38%, 45.29%, 61.95% and 54.98%, respectively, of the total salt sales, while no customer accounted for more than 20% of the total bromine sales.

Strengths

- Leading market position, expansion and growth in bromine and industrial salt.
- High entry barriers in the specialty marine chemicals industry.
- Established infrastructure and integrated production with cost efficiencies.
- Focus on environment and safety.
- Largest Indian exporter of bromine and industrial salt with global customer base.
- Experienced management team, promoters and financial investors and stakeholders.

Key strategies:

- Expand reach across select geographies and deepen the footprint in their existing markets.
- Enhancing sales volumes by continuing to prioritise customer satisfaction through optimal product assortment and offering value for money.
- Technology led effective inventory management & lean operating structure to maintain & improve operating efficiencies.
- Maintaining & forging new relationships with leading brands across existing and new format stores thereby ensuring wider product range.



Industry Outlook...

The bromine global market size was US\$3.13 billion in CY21, and the market is expected to grow at a CAGR of 5.8% between CY20 and CY25. Frost & Sullivan reports that global demand for industrial salt is expected to grow at a CAGR of 2.8% between CY20 and CY25. Frost & Sullivan provides that global demand for sulphate of potash is expected to grow at a CAGR of 6.0% between CY20 and CY25.

Key players in the Indian bromine industry

Sea bittern obtained in Kutch has very good contents of bromine and can be used for bromine manufacturing. Most important factor to consider is Bromine concentration in brine for a plant to operate profitably. The area for feed is limited to Rann of Kutch which is 200km x 200km 7 meter deep sponge with 40% porosity. BSF permission is essential to access the sponge. All the existing players have taken up the most feasible area available in the region. Accordingly, or any new plant, availability of rich raw materials is a concern.

Key Manufacturers	Location	Approved Annual Capacity	Actual Production in Fiscal 2021
Archean Chemical Industries Ltd.	Plant is located at Hajipir, Kutch District	42.5 KT	14 KT
Satyesh Brine Chem	Plant is located at Hajipir, Kutch District	25 KT	3 KT
Solaris ChemTech Industries Limited	Plant is located at Khavda, Gujarat	23 KT*	18 KT
Agrocel Industries Pvt. Ltd.	Plant is located in Greater Rann of Kutch	10 KT*	7 KT
Nirma Limited	Plant is located in Kalatalav village, near Bhavnagar in Gujarat state.	3 KT	2 KT
Tata Chemicals Ltd.	Plant is located at Mithapur, Gujarat	2.4 KT	1 KT
Dev Salt Private Ltd	Plant is located at Morbi district of Gujarat	2.5 KT	1 KT

Source: RHP, Geojit Research

Archean Chemical Industries Ltd. commands leadership position in Indian bromine merchant sales (traded bromine in market) based on bromine production and captive consumption. Archean Chemical Industries Ltd. is leading bromine supplier in India as well the biggest exporter of bromine from India in FY21 by volume. With the expansion of bromine production facility to approximately 42.5KT per annum, Archean Chemical is likely to cement the leadership position. According to the Company Commissioned F&S Report, Archean has leadership position in bromine exports from India with 75.3% market share in FY20 and 82.8% in FY21. Archean has a 43% market share in the Indian bromine market in FY21.

Key players in the Indian industrial salt industry

While there are umpteen small traders and exporters from India only few top exporters from India having export volumes more than 1 million MT in FY21. They include the following:

Sr.	Company Name	Export (Mn MT)
1.	Archean Chemical Industries Ltd.	2.7
2.	The Kutch Salt And Allied Industries Ltd. group (including Friends Impex India)	1.2

Source: RHP, Geojit Research

Key Players in the global POS industry

Sulphate of Potash is predominately produced from sea brine in India. Archean Chemical Industries Ltd. Occupies a dominant position in the Indian Sulphate of Potash market through its indigenous production from sea brine, liquid bromine and industrial salt. It is India's only large-scale producer of fertiliser grade water soluble sulphate of potash. Globally, the other key players in the POS industry include Tessenderlo Group, Nutrien and Mosaic Company.

Promoter and promoter group

The company was originally formed as a partnership firm under the name of "Archean Chemical Industries" at Chennai, on November 20, 2003. Chemikas Speciality LLP, Ravi Pendurthi and Ranjit Pendurthi are the promoters of the company. Currently, the promoters collectively hold an aggregate of 67,724,755 Equity Shares, equivalent to 65.58% of the pre-Offer issued, subscribed and paid-up equity share capital of the company.

Brief Biographies of directors

- **Ranjit Pendurthi** is the Promoter and Managing Director of the company. He has been associated with the company since incorporation. He has 21 years of experience in the chemical business.
- **Ravi Pendurthi** is the Promoter and Non-Executive Director of the company. He has 14 years of experience in the chemical industry.
- **Subrahmanyam Meenakshisundaram** is the Non-Executive Director on the Board of the company. He has been associated with the company since incorporation.
- **Padma Chandrasekaran** is the Independent Director on the Board of the company. She has several years of experience in various fields such as information technology and financial services.
- **Chittoor Ghatambu Sethuram** is an Independent Director on the Board of the company. He has over 3 decades of experience in chemical industry.
- **Kandheri Munaswamy Mohandass** is an Independent Director on the Board of the company. He has over 4 decades of experience in audit, tax, project finance, corporate restructuring, and corporate laws advisory.

CONSOLIDATED FINANCIALS

PROFIT & LOSS

Y.E March (Rs cr)	FY20	FY21*	FY22
Sales	608.2	740.8	1,130.4
% change	-	21.8	52.6
EBITDA	148	262.2	467.2
% change	-	77	78
Depreciation	51.8	55.4	66.9
EBIT	96.2	206.8	400.3
Interest	121.8	130.4	161.7
Other Income	8.8	14.0	12.4
Exceptional Items	-	-	-
PBT	-16.7	90.5	251.0
% change	-	-642	177.4
Tax	19.5	23.9	62.4
Tax Rate (%)	-	26	25
Reported PAT	-36.2	66.6	188.6
Adj	-	-	-
Adj. PAT	-36.2	66.6	188.6
% change	-	-283.9	183.1
Post issue No. of shares (cr)	12.3	12.3	12.3
Adj EPS (Rs)	-2.9	5.4	15.3
% change	-	-283.9	183.1

BALANCE SHEET

Y.E March (Rs cr)	FY20	FY21*	FY22
Cash	24.7	31.8	58.7
Accounts Receivable	44.5	68.1	153.0
Inventories	98.8	110.6	120.8
Other Cur. Assets	46.4	34.7	40.7
Investments	49.6	57.1	27.4
Deff. Tax Assets	77.1	53.3	-
Net Fixed Assets	915.4	1,040.6	1,084.4
CWIP	158.2	18.9	17.2
Intangible Assets	0.1	0.1	0.2
Other Assets	13.8	17.2	27.4
Total Assets	1,429	1,432	1,530
Current Liabilities	235.2	150.4	160.9
Provisions	211.4	171.7	119.4
Debt Funds	976.0	1,038	979.1
Other Fin. Liabilities	-	-	-
Deferred Tax liability	-	-	-
Equity Capital	19.3	19.3	19.3
Reserves & Surplus	-13.3	53.1	241.8
Shareholder's Fund	6.0	72.4	261.1
Total Liabilities	1,429	1,432	1,530
BVPS (Rs)	0.5	6	21

CASH FLOW

Y.E March (Rs cr)	FY20	FY21*	FY22
PBT Adj.	-16.7	90.5	251.0
Non-operating & non cash adj.	200.8	106.5	-22.7
Changes in W.C	-36.2	-77.8	86.2
C.F. Operating	147.8	119.1	314.5
Capital expenditure	-152.0	-10.5	-96.6
Change in investment	-	-	-46.2
Sale of investment	-46.1	7.3	31.3
Other invest.CF	1.5	1.5	1.4
C.F - investing	-196.7	-1.8	-110.1
Issue of equity	-	-	-
Issue/repay debt	109.0	-10.0	-26.0
Dividends paid	-	-	-
Other finance.CF	-82.6	-100.3	-197.7
C.F - Financing	26.4	-110.3	-223.7
Change. in cash	-22.5	7.0	-19.3
Closing cash	24.8	31.5	12.2

RATIOS

Y.E March	FY20	FY21*	FY22
Profitab. & Return			
EBITDA margin (%)	24.3	35.1	41.3
EBIT margin (%)	15.8	27.9	35.4
Net profit mgn.(%)	-6.0	9.0	16.7
ROE (%)	-	92.0	72.2
ROCE (%)	23.0	7.7	13.1
W.C & Liquidity			
Receivables (days)	27	28	36
Inventory (days)	-	4,298	1,074
Payables (days)	100	55	40
Current ratio (x)	0.6	0.9	1.4
Quick ratio (x)	0.3	0.7	1.3
Turnover & Levq.			
Net asset T.O (x)	0.7	0.8	1.1
Total asset T.O (x)	0.4	0.5	0.8
Int. covge. ratio (x)	1.3	0.6	0.4
Adj. debt/equity (x)	-	14.5	3.8
Valuation ratios			
EV/Sales (x)	9.9	8.2	5.3
EV/EBITDA (x)	40.5	23.1	12.8
P/E (x)	-	75.2	26.5
P/BV (x)	836.3	69.2	19.2

*Standalone

General Disclosures and Disclaimers

CERTIFICATION

We, Mithun T Joseph & Rajeev T, author (s) of this Report, hereby certify that all the views expressed in this research report reflect my personal views about any or all of the subject issuer or securities. This report has been prepared by the Research Team of Geojit Financial Services Limited, hereinafter referred to as Geojit.

COMPANY OVERVIEW

Geojit Financial Services Limited (hereinafter Geojit), a publically listed company, is engaged in services of retail broking, depository services, portfolio management and marketing investment products including mutual funds, insurance and properties. Geojit is a SEBI registered Research Entity and as such prepares and shares research data and reports periodically with clients, investors, stake holders and general public in compliance with Securities and Exchange Board of India Act, 1992, Securities And Exchange Board Of India (Research Analysts) Regulations, 2014 and/or any other applicable directives, instructions or guidelines issued by the Regulators from time to time.

DISTRIBUTION OF REPORTS

This document is not for public distribution and has been furnished to you solely for your information and must not be reproduced or redistributed to any other person. Geojit will not treat the recipients of this report as clients by virtue of their receiving this report.

GENERAL REPRESENTATION

The research reports do not constitute an offer or solicitation for the purchase or sale of any financial instruments, inducements, promise, guarantee, warranty, or as an official confirmation of any transaction or contractual obligations of any kind. This report is provided for assistance only and is not intended to be and must not alone be taken as the basis for an investment decision. The information contained herein is from publicly available data or other sources believed to be reliable, but we do not represent that it is accurate or complete and it should not be relied on as such. We have also reviewed the research report for any untrue statements of material facts or any false or misleading information. While we endeavor to update on a reasonable basis the information discussed in this material, there may be regulatory, compliance, or other reasons that prevent us from doing so.

RISK DISCLOSURE

Geojit and/or its Affiliates and its officers, directors and employees including the analyst/authors shall not be in any way be responsible for any loss or damage that may arise to any person from any inadvertent error in the information contained in this report. Investors may lose his/her entire investment under certain market conditions so before acting on any advice or recommendation in these material, investors should consider whether it is suitable for their particular circumstances and, if necessary, seek professional advice. This report does not take into account the specific investment objectives, financial situation/circumstances and the particular needs of any specific person who may receive this document. The user assumes the entire risk of any use made of this information. Each recipient of this report should make such investigation as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this report (including the merits and risks involved). The price, volume and income of the investments referred to in this report may fluctuate and investors may realize losses that may exceed their original capital.

FUNDAMENTAL DISCLAIMER

We have prepared this report based on information believed to be reliable. The recommendations herein are based on 12 month horizon, unless otherwise specified. The investment ratings are on absolute positive/negative return basis. It is possible that due to volatile price fluctuation in the near to medium term, there could be a temporary mismatch to rating. For reasons of valuations/return/lack of clarity/event we may revisit rating at appropriate time. The stocks always carry the risk of being upgraded to buy or downgraded to a hold, reduce or sell. The opinions expressed are subject to change but we have no obligation to tell our clients when our opinions or recommendations change. This report is non-inclusive and does not consider all the information that the recipients may consider material to investments. This report is issued by Geojit without any liability/undertaking/commitment on the part of itself or any of its entities. We may have issued or may issue on the companies covered herein, reports, recommendations or information which is contrary to those contained in this report.

The projections and forecasts described in this report should be evaluated keeping in mind the fact that these are based on estimates and assumptions and will vary from actual results over a period of time. The actual performance of the companies represented in the report may vary from those projected. These are not scientifically proven to guarantee certain intended results and hence, are not published as a warranty and do not carry any evidentiary value whatsoever. These are not to be relied on in or as contractual, legal or tax advice. Prospective investors and others are cautioned that any forward-looking statements are not predictions and may be subject to change without notice.

JURISDICTION

The securities described herein may not be eligible for sale in all jurisdictions or to all categories of investors. The countries in which the companies mentioned in this report are organized may have restrictions on investments, voting rights or dealings in securities by nationals of other countries. Distributing/taking/sending/dispatching/transmitting this document in certain foreign jurisdictions may be restricted by law, and persons into whose possession this document comes should inform themselves about, and observe any such restrictions. Failure to comply with this restriction may constitute a violation of any foreign jurisdiction laws. Foreign currencies denominated securities are subject to fluctuations in exchange rates that could have an adverse effect on the value or price of or income derived from the investment. Investors in securities such as ADRs, the value of which are influenced by foreign currencies effectively assume currency risk.

REGULATORY DISCLOSURES:

Geojit's Associates consists of privately held companies such as Geojit Technologies Private Limited (GTPL- Software Solutions provider), Geojit Credits Private Limited (GCPL- NBFC Services provider), Geojit Investment Services Limited (GISL- Corporate Agent for Insurance products), Geojit Financial Management Services Private Limited (GFMSL) & Geojit Financial Distribution Private Limited (GFDPL), (Distributors of Insurance and MF Units). In the context of the SEBI Regulations on Research Analysts (2014), Geojit affirms that we are a SEBI registered Research Entity and in the course of our business as a stock market intermediary, we issue research reports /research analysis etc that are prepared by our Research Analysts. We also affirm and undertake that no disciplinary action has been taken against us or our Analysts in connection with our business activities.

In compliance with the above mentioned SEBI Regulations, the following additional disclosures are also provided which may be considered by the reader before making an investment decision:

1. Disclosures regarding Ownership:

Geojit confirms that:

It/its associates have no financial interest or any other material conflict in relation to the subject company (ies) covered herein.

It/its associates have no actual beneficial ownership of 1% or more in relation to the subject company (ies) covered herein.

Further, the Analyst confirms that:

he, his associates and his relatives have no financial interest in the subject company (ies) covered herein, and they have no other material conflict in the subject company.

he, his associates and his relatives have no actual/beneficial ownership of 1% or more in the subject company covered

2. Disclosures regarding Compensation:

During the past 12 months, Geojit or its Associates:



(a) Have not received any compensation from the subject company; (b) Have not managed or co-managed public offering of securities for the subject company (c) Have not received any compensation for investment banking or merchant banking or brokerage services from the subject company. (d) Have not received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company (e) Have not received any compensation or other benefits from the subject company or third party in connection with the research report (f) The subject company is / was not a client during twelve months preceding the date of distribution of the research report.

3. Disclosure by Geojit regarding the compensation paid to its Research Analyst:

Geojit hereby confirms that no part of the compensation paid to the persons employed by it as Research Analysts is based on any specific brokerage services or transactions pertaining to trading in securities of companies contained in the Research Reports.

4. Disclosure regarding the Research Analyst's connection with the subject company:

It is affirmed that We , Mithun T Joseph & Rajeev T, Research Analyst (s) of Geojit have not served as an officer, director or employee of the subject company

5. Disclosure regarding Market Making activity:

Neither Geojit/its Analysts have engaged in market making activities for the subject company.

Please ensure that you have read the "Risk Disclosure Documents for Capital Market and Derivatives Segments" as prescribed by the Securities and Exchange Board of India before investing.

Geojit Financial Services Ltd., Registered Office: 34/659-P, Civil Line Road, Padivattom, Kochi-682024, Kerala, India. Phone: +91 484-2901000, Website: www.geojit.com. For investor queries: customercare@geojit.com, For grievances: grievances@geojit.com, For compliance officer: compliance@geojit.com.

Corporate Identity Number: L67120KL1994PLC008403, SEBI Stock Broker Registration No INZ000104737, Research Entity SEBI Reg No: INH200000345, Investment Adviser SEBI Reg No: INA200002817, Portfolio Manager: INP000003203, Depository Participant: IN-DP-325-2017, ARN Regn.Nos:0098, IRDA Corporate Agent (Composite) No.: CA0226