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A Study on Market Dynamics, Competitive Landscape, Import Economics and Trading Viability of Bisphenol A and Chloroprene Rubber for Atul Ltd

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Abstract

India imports almost all of its Bisphenol A (BPA) and Chloroprene Rubber (CR), yet published market reports say little about who imports these chemicals, from where, and at what duty-adjusted cost. This study examines whether bulk import for resale is commercially viable for Atul Ltd., a leading Indian chemicals manufacturer, or whether each material is better used purely as manufacturing feedstock. A descriptive and analytical design was applied to 3,103 cleaned BPA import transactions (approximately 432,700 MT; FY2022–FY2026) and 10,346 cleaned CR shipment lines (100,584 MT; FY2021-22 to FY2025-26), supplemented by secondary market, pricing and regulatory sources. Importers were classified as manufacturers or traders, duty and free-trade-agreement (FTA) structures were mapped by country of origin, and landed-cost and margin models were built from first principles.

BPA imports are highly concentrated: Grasim Industries (about 44%) and Atul (about 24%) together hold roughly two-thirds of volume, manufacturers account for about 90%, and about 82% of volume enters duty-free from FTA partners, leaving a pure trading model with an indicative gross margin of only about 0.8%. In CR, Japan supplies 57.9% of imports at zero duty under the India–Japan CEPA, whereas other origins bear a 10% basic customs duty; an indicative resale earns a net margin of about 3.8% on full-duty origins against about 14.9% on Japanese CEPA-origin material. Atul sources about 69% of its own CR from China at full duty. Country-of-origin duty status, rather than commodity price, therefore governs trading profitability. The study recommends retaining BPA as feedstock and repositioning CR activity as a preferential-origin, bulk-breaking distribution business. Because the datasets carry no invoice values, all price-based figures are indicative.

Keywords: Bisphenol A; chloroprene rubber; import economics; free trade agreements; customs duty; trading viability; landed cost; India



1. Introduction

1.1 Background and Problem Statement

Bisphenol A (BPA), the key building block of epoxy resins and polycarbonate plastics, and Chloroprene Rubber (CR), a specialty elastomer used in adhesives, automotive components and power-transmission belts, share a defining commercial feature: India has little or no domestic manufacturing capacity for either, so national demand is met almost entirely through imports. Market reports from international research houses typically describe global capacity and demand forecasts, but they reveal little about which Indian firms actually bring these materials into the country, from which origins, and under what customs-duty regime (Grand View Research, 2025; Mordor Intelligence, 2026). This study was designed to close that gap.

The question was posed by the Trading Division of Atul Ltd., which sits on both sides of the issue. As one of India's leading epoxy-resin manufacturers, Atul is already the country's second-largest BPA importer, consuming the material as feedstock. As a division with established import-logistics capability, it could also buy BPA or CR in volumes above its captive need and resell the surplus, provided this is profitable after duty, freight, financing and competitive pricing. The study therefore had to move beyond describing the market to a defensible buy-versus-trade answer for each commodity, supported by transaction-level evidence rather than forecasts alone.

The two commodities were studied as parallel workstreams under a common framework. BPA is a bulk monomer whose economics are shaped by global oversupply and by which origins enjoy duty-free access under India's trade agreements. CR is a specialty elastomer sold in several grade families, and its economics are shaped less by oversupply than by a sharp duty asymmetry between preferential and non-preferential origins. Running both studies on the same framework tests whether one buy-or-trade logic holds for both; as the results show, it does not.

1.2 Research Objectives

The study pursued five objectives across the two commodities:

1. To profile India's import market for BPA and CR over five financial years, quantifying volume trends, source-country concentration and the leading importers.
2. To classify importers as manufacturers or traders and, for traders, to establish their principal suppliers, source countries and indicative pricing.
3. To map the import-duty and FTA structure applicable to each HS code and to build indicative landed-cost and Standard Input–Output (SION) economics.
4. To assess whether a commercially viable bulk-import trading or resale business exists for each commodity and through which sourcing route.
5. To recommend whether Atul should buy each commodity purely as feedstock, pursue it as a stand-alone trading line, or adopt a hybrid approach.

1.3 Scope and Contribution

The scope is limited to India's recorded import transactions for BPA (HS 2907.23.00; FY2022–FY2026; 3,103 cleaned transactions; about 432,700 MT) and CR (HS 4002.49.00; FY2021-22 to FY2025-26; 10,346 cleaned shipment lines; 100,584 MT). Production data, field surveys, plant-level cost audits and invoice values are outside the scope. "Trading viability" here means a first-order commercial screen that compares landed cost with an achievable resale price; it is not a full financial feasibility study with working-capital, inventory-carrying or counterparty-risk modelling.

The study contributes (a) a transaction-level reconstruction of India's BPA and CR import markets, replacing generic forecast-driven commentary; (b) a quantified demonstration that duty and FTA status, not commodity price, decide trading margins; (c) differentiated recommendations for the two commodities; and (d) a repeatable methodology and cleaned dataset that the Trading Division can reuse for other import-dependent chemicals. The paper is organised as follows: Section 2 reviews theory and literature, Section 3 describes the methodology, Section 4 presents the results, Section 5 discusses implications, recommendations and limitations, and Section 6 concludes.

1.4 Industry and Company Context

The Indian chemicals sector

India's chemicals and petrochemicals industry is valued at roughly US$270–280 billion in 2026, contributes about 7% of GDP, and is projected to reach US$380–400 billion by 2030 at about 8% CAGR (Indian Brand Equity Foundation [IBEF], 2026). Speciality chemicals account for about 22% of industry value but more than half of chemical exports (Ken Research, 2025). BPA and CR sit at the boundary of commodity and speciality chemicals: they are internationally traded and largely undifferentiated, yet feed higher-value conversion chains. The sector's defining structure is "import



the molecule, add the value": imported monomers and elastomers are converted domestically into epoxy resins, adhesives and rubber compounds.

Applying Porter's (2008) five forces to both chains (Table 1) shows that supplier and buyer power are high, that trading-layer rivalry is intense, and that value is contested at the conversion stage rather than in commodity trading. Entry into import-and-trade is easy because neither HS code needs an import licence, but conversion requires technical know-how and increasingly environmental clearances. Policy actively shapes conversion economics: a five-year anti-dumping duty on liquid epoxy resin was imposed in November 2025 (Central Board of Indirect Taxes and Customs [CBIC], 2025), while BPA itself attracts none. Other relevant regulators include the Directorate General of Trade Remedies (DGTR), the Central Pollution Control Board (CPCB), the Food Safety and Standards Authority of India (FSSAI) and the Bureau of Indian Standards (BIS).

Table 1

Porter's Five Forces Applied to the BPA and Chloroprene Rubber Chains in India

Force	BPA / epoxy chain	Chloroprene rubber chain	Intensity
New entrants	Easy at trading; hard at conversion	Easy at trading; moderate at compounding	Moderate
Supplier power	Concentrated global majors (e.g., Covestro, SABIC, LG Chem)	Concentrated (Denka, Arlanxeo); Japan-heavy	High
Buyer power	Grasim and Atul hold about 66% of imports	Top 15 buyers hold about 65% of imports	High
Substitutes	BPS, BPF, bio-based PC; slow-moving	EPDM, NBR, SBR; application-specific	Moderate
Rivalry	Thin-margin trading; protected conversion	Thin-margin trading; direct-import majors	High (trading)

Note. Constructed by the author from the import data and secondary sources cited in the text.

A PESTEL scan (Table 2) shows the macro conditions that both chains share. Chemicals is a thrust sector under national self-reliance goals, with 100% FDI allowed through the automatic route and anti-dumping action used actively. The economic environment is import-dependent and sensitive to global commodity cycles, freight and the rupee–dollar rate. Regulation is multi-layered (Table 3), and import of both products is licence-free but governed by duty and rules of origin.

Table 2

PESTEL Analysis of the Indian Chemicals Sector Applied to BPA and CR

Factor	Key points
Political	Thrust sector under Atmanirbhar Bharat and Viksit Bharat 2047; 100% FDI via automatic route; active anti-dumping use; a PLI scheme for chemicals proposed since 2021–22 but not finalised.
Economic	Industry worth ~US$270–280 billion (2026), ~7% of GDP; import-dependent for organic intermediates; sensitive to commodity cycles, freight and INR/USD.
Social	Demand pull from construction, automotive, electronics, wind energy and infrastructure; food-contact health concerns reshaping BPA packaging demand.
Technological	BPA capacity shifting to Asia, especially China; Japan retains CR technology lead; Indian firms invest in downstream engineering; digital trade compliance increasingly important.
Environmental	CPCB hazardous-chemical and effluent rules; EU CBAM (2026) affects epoxy and rubber-goods exports; ESG pressure favours BPA-free and lower-carbon alternatives.



Factor	Key points
Legal	Licence-free imports but decisive duty and rules of origin (about 82% of BPA duty-free via FTAs; CR 0% from Japan versus 10% MFN); BIS standards (e.g., IS 2557 for epoxy); 18% GST.

Note. Source: Compiled by the author from IBEF (2026), Ken Research (2025) and CBIC (2025, 2026).

Table 3

Key Regulatory Bodies Governing the BPA and CR Sub-Sectors in India

Body	Role in the sector
Department of Chemicals and Petrochemicals	Apex policy body; sector strategy and PCPIR policy.
Directorate General of Trade Remedies	Recommends anti-dumping and safeguard duties (e.g., liquid epoxy resin, November 2025).
Central Board of Indirect Taxes and Customs	Administers BCD, HS classification and FTA origin verification.
CPCB and State Pollution Control Boards	Regulate hazardous-chemical handling, storage and effluent discharge.
Food Safety and Standards Authority of India	Regulates food-contact use of BPA; restrictions under development.
Bureau of Indian Standards	Sets quality standards for downstream products (e.g., IS 2557 for epoxy).
PESO and MoEFCC	Licensing and safety of hazardous chemicals; environmental clearance for conversion plants.
GST Council	Sets indirect-tax rates; BPA and polycarbonate granules attract 18% GST.

Note. PCPIR = Petroleum, Chemicals and Petrochemicals Investment Region; PESO = Petroleum and Explosives Safety Organisation; MoEFCC = Ministry of Environment, Forest and Climate Change.

Several trends cut across both sub-sectors. Structural import dependence exposes both to global capacity cycles, freight and currency swings. China-driven oversupply compresses commodity margins, and China is a swing supplier of CR. Value is migrating towards conversion and preferential-origin distribution, because pure resale earns low single-digit margins. Trade-policy sensitivity is high, since the gap between MFN and preferential rates is often larger than the whole trading margin. Prices are volatile: CR spot moved from about US$5,150/MT to US$7,000–7,200/MT within 2025. Government support includes a Union Budget 2025-26 allocation of about ₹1.6 trillion to the Ministry of Chemicals and Fertilizers, Petroleum, Chemicals and Petrochemicals Investment Regions, a proposed PLI scheme, and a National Chemicals Policy framework that includes an investment target of about US$37 billion and a feasibility evaluation of domestic BPA production, backed by an ambition of a US$1 trillion industry and up to 10 million additional jobs by 2040.

Global developments reinforce these pressures: West Asia instability affects feedstock and freight costs; the EU carbon border adjustment mechanism raises costs on carbon-intensive exports; Denka's suspension of its Louisiana CR plant in 2025 removed a source and tightened supply; and EU and prospective Indian restrictions on BPA in food-contact materials may reshape long-term demand. Supply-side capacity continues to expand in Asia, for example SABIC's planned Zhangzhou polycarbonate and BPA capacity of about 270 KT.

Atul Ltd.

Atul Ltd. was founded in 1947 by Kasturbhai Lalbhai, belongs to the Lalbhai Group, and operates its principal complex at Atul in Valsad district, Gujarat. It manufactures about 900 products and 400 formulations under roughly 140 brands, serves about 4,000 customers across 30 industries in some 88–90 countries, and reports in two segments: Life Science Chemicals (about 30% of sales) and Performance and Other Chemicals (about 70%), the latter including epoxy resins



and curing agents (Lapox) and retail adhesives (Polygrip). Atul holds about 53% of global p-cresol supply, and its retail adhesive brands hold roughly 7% (Lapox) and 5% (Polygrip) of the Indian market, where Pidilite is the principal rival. The company is virtually debt-free, and recent financial performance is summarised in Table 4 (Atul Ltd., 2025; Screener.in, 2026).

Table 4

Atul Ltd.: Key Consolidated Financial Parameters (₹ crore)

Parameter	FY2022-23	FY2023-24	FY2024-25	FY2025-26*
Revenue from operations	~5,428	4,726	5,583	~6,274
EBITDA	~895	705	1,022	~1,234
PAT (attributable)	~552	324	499	~689
RoCE (%)	~19	~12.5	~14	~15

Note. *Provisional; based on published results and broker estimates. Source: Atul Ltd. (2025); Screener.in (2026).

Atul's position combines strengths and constraints. A diversified portfolio, global leadership in p-cresol and a strong domestic epoxy position give it scale and a conservative balance sheet. Exposure to commodity cycles, dependence on imported feedstocks such as epichlorohydrin, and competition from low-cost Chinese producers compress its margins. The company is expanding liquid epoxy capacity from about 30 ktpa (reported targets range from 50 to 100 ktpa) and has petitioned for trade-remedy protection on the finished resin, so the practical question for BPA is whether Atul should remain a captive consumer or also become a seller.

Atul's competitive position varies by segment (Table 5 summarises its strengths, weaknesses, opportunities and threats). It holds about 53% of the global p-cresol market, about 13% of 2,4-D and about 50% of dapsone, a leading domestic position in epoxy resins and vat dyes, and competes with Grasim, Kukdo, Huntsman and Olin in epoxy and with Pidilite, Henkel and Bostik in adhesives. Over five years it has defended or extended share through expansions and debottlenecking, while Grasim's large epoxy capacity additions have intensified domestic competition.

Table 5

SWOT Analysis of Atul Ltd.

Dimension	Key points
Strengths	Diversified portfolio of about 900 products across 30 industries; global leadership in p-cresol; strong domestic epoxy and vat-dye positions; virtually debt-free balance sheet; integrated manufacturing and long customer relationships; values-driven governance.
Weaknesses	Exposure to commodity cycles and Chinese oversupply; limited consumer-brand visibility outside adhesives; under-utilised assets in some periods lower RoCE; dependence on imported feedstocks such as epichlorohydrin.
Opportunities	Epoxy capacity expansion and downstream integration; China+1 sourcing shift; growth in wind energy, EVs, electronics and infrastructure; new crop-protection and pharmaceutical molecules; new adjacencies such as water treatment.
Threats	Aggressive capacity additions by Chinese and domestic rivals; regulatory restrictions on certain chemistries; logistics and geopolitical disruption; currency and interest-rate volatility; long-term substitution by bio-based materials.

Note. Source: Compiled by the author from Atul Ltd. (2025) and secondary sources.

From a functional perspective, finance is conservative and debt-light, with weekly monitoring of benzene, phenol and epichlorohydrin indices; marketing is largely cost-plus with FTA-linked adjustments and combines direct sales to industrial customers with retail distribution for adhesives and crop-protection products; and human resources rely on home-grown leadership, with about 3,300–3,400 employees and stable labour relations. Governance follows a multi-tier structure with six Board committees, and the company spent ₹13.59 crore on CSR in FY2024-25 against an obligation of ₹13.57 crore across 44 projects reaching about 131,900 direct beneficiaries. Recent strategic moves include the Atul-



Buckman water-treatment joint venture (August 2025), a ₹167 crore internally funded investment approved in July 2026 for MCPP-p (1,000 tpa) and MCPA (750 tpa) herbicide plants, and the November 2025 epoxy anti-dumping petition.

2. Literature Review

2.1 Theoretical Framework

The study combines four connected bodies of theory, each operationalised in the analysis.

Industrial chemistry and process economics. BPA is made by acid-catalysed condensation of phenol and acetone and is the monomer for polycarbonate and epoxy resin, which together absorb roughly 95% of global consumption. CR is made by free-radical emulsion polymerisation of 2-chloro-1,3-butadiene, and the chlorine atom on its backbone explains its premium over general-purpose rubbers through oil, ozone, weathering and flame resistance. The concept of feedstock-to-derivative value addition underpins the SION costing used for BPA and the landed-cost modelling used for CR: an imported monomer or elastomer is worth what its next processing step can earn.

International trade and tariff theory. Comparative advantage (Ricardo, 1817) explains why capital-intensive petrochemical production concentrates in feedstock-rich economies such as South Korea, Thailand, Singapore, Japan and China, while India specialises downstream. Preferential agreements (India–Korea CEPA, India–ASEAN AITIGA, India–Singapore CECA, India–Japan CEPA) cut basic customs duty for qualifying origins subject to rules of origin and a valid certificate of origin. The theory predicts that duty differentials, where they exist, are exploitable and, where they are universal, are competed away. This is the contrast between BPA, where most volume already enters duty-free, and CR, where a large gap persists.

Commodity market structure and demand–supply theory. Where output is undifferentiated and capacity is ample, price is set by global utilisation and no participant has pricing power, so trading margins are thin. The BPA market fits this description because of structural oversupply led by Chinese capacity additions. For CR, volatility and exchange-rate exposure, and the inventory risk that stock loses value before it is sold, are central. Both studies therefore test margin sensitivity: how far a small move in price, freight or exchange rate erodes a thin margin.

Value-chain and vertical-integration theory. Porter's (1985) value-chain logic holds that a firm positioned downstream captures durable value by converting inputs, because a pure trading position can be replicated by any competitor with the same access. The theory frames the central strategic question: trade the commodity input unchanged, or convert it into a higher-value product?

2.2 Review of Existing Literature

Peer-reviewed research on the commercial trade economics of BPA and CR is limited, so the review relies on industry, government and market-intelligence sources, which is common in applied trade-economics work. It is organised by theme.

Market sizing and forecasting. Global BPA market reports place the market at roughly US$20–24 billion and 7–8 million tonnes a year, with Asia-Pacific holding most capacity (Coherent Market Insights, 2025; Grand View Research, 2025). Mordor Intelligence (2026) supplies comparable benchmarks for neoprene and for the Indian epoxy-resin market, where demand grows about 7.8% a year, and IMARC Group (2026) adds India-specific pricing detail. These sources agree that both markets are large, mature and geographically concentrated.

Pricing. Because neither import dataset records transaction values, the study depends on price literature. ChemAnalyst (2026) provided indicative 2025–26 prices for BPA, epichlorohydrin, epoxy resin and neoprene; PriceWatch (2025) and IMARC Group (2026) served as cross-checks, in line with the practice of triangulating prices across at least two providers.

Regulation and customs. The CBIC supplied the tariff schedules (2907.23.00 for BPA; 4002.49.00 for CR) and the anti-dumping notification on liquid epoxy resin (CBIC, 2025, 2026), and PwC (2026) supplied the indirect-tax treatment used in the landed-cost model. The European Commission's (2024) ban on BPA in food-contact materials illustrates how regulation in a major consuming bloc can reshape global demand. Across these sources, duty and regulatory structure often matter more than chemistry in determining trading profitability.

Trade data and corporate disclosures. Volza (2025) and Sea Air Cargo Systems (2026) offered descriptive import-flow and CEPA-documentation material used to corroborate the transaction-level results. Denka Company Limited (2026) documented a CR price revision following the closure of its US plant, evidence of tightening supply, and Deepak Nitrite and GNFC (2025) indicated that domestic BPA and phenol capacity may arrive around 2027–28, which makes today's import dependence time-bound. PubChem (n.d.) served as the chemical reference for BPA.



2.3 Research Gap

The literature is strong on market size, price trends and the duty framework taken separately, but it does not integrate them at transaction level for one importer's decision. Market reports do not identify importers or classify them as manufacturers or traders; price reports do not give firm-specific landed cost or realised margin; and regulatory sources describe the duty framework in the abstract without showing how much actual trade already benefits from it. This study fills that gap by combining a large primary transaction dataset with the pricing, duty and regulatory literature to answer a concrete question: trade or convert, and, for CR, which origin makes trading profitable.

3. Methodology

3.1 Research Design

The study is a descriptive and analytical commercial feasibility study that combines secondary market literature with original quantitative analysis of transaction-level trade data. It is not experimental or causal. It was carried out during an on-the-job training programme in Atul's Trading Division between 18 May and 17 July 2026 and proceeded in three phases: orientation and data acquisition for BPA; cleaning, analysis and modelling of the BPA data; and the same cycle for the larger and more granular CR data, followed by consolidation and review with the Trading Division guides.
Table 6 summarises the sequence of stages applied to each commodity.

Table 6

Stages of the Overall Project Process

Stage	Description
1. Orientation	Product understanding, sector briefing and alignment with guides on scope
2. Data acquisition	Collection of consolidated import records (BPA, then CR)
3. Data cleaning	Unit standardisation; importer, supplier and country consolidation; removal of non-weight-unit and blank rows
4. Descriptive analysis	Year-wise volume trends; source-country and importer concentration
5. Classification	Importer categorisation as manufacturer or trader
6. Duty and FTA mapping	HS code identification; BCD, SWS and IGST treatment; FTA and CEPA origin mapping
7. Economic modelling	Landed cost, SION cost build-up, trading margin and sensitivity analysis
8. Synthesis	Findings, conclusions and buy-versus-trade recommendation

Note. Source: Author.

3.2 Data Sources and Collection

Primary data comprised consolidated, transaction-level Indian import records for BPA (HS 2907.23.00) and CR (HS 4002.49.00), supplied in spreadsheet form by the Trading Division. Secondary data came from structured desk research of market-research publishers, customs and regulatory websites and commodity price-reporting services, all cited in the References. The study uses a full census of the available records rather than a sample: the sampling frame is every recorded import transaction for each HS code in the study period, and the unit of analysis is one transaction or shipment line.

3.3 Data Preparation

The BPA data were standardised to metric tonnes (MT), yielding 3,103 clean transactions and about 432,700 MT after removing incomplete records. The CR data required more work. The source workbook held five year-block worksheets with inconsistent headers (for example, IMPORTER versus Indian Company, and QUANTITY versus QTY) and quantities in nine different units. Weight-based units (KGS, MTS, LBS, GMS) were converted to MT. Non-weight units (pieces, numbers, metres, sets and yards; 315 rows) could not be converted without an assumed density and were excluded, reducing 10,661 raw rows to 10,346 analysable lines totalling 100,584 MT (Table 7).
Supplier, importer and country names appeared in many spelling and punctuation variants (for instance, "Akros Trading Co Ltd", "Akros Trading Co.Ltd" and "Arkos Trading Co. Ltd" denote one entity). Names were canonicalised by



removing punctuation and corporate suffixes and mapping known aliases, so that each entity is counted once, and country labels were unified (for example, “Korea, Republic of” and “South Korea”) before any concentration or duty analysis. Without this step, market concentration would have been understated and several importers misclassified.

Table 7

Reconciliation from Raw Records to Clean Analysable Data

Stage	BPA	Chloroprene rubber
Raw records	Not separately reported	10,661 rows
Less: non-weight-unit or incomplete rows	—	(315) rows
Clean analysable records	3,103 transactions	10,346 shipment lines
Total clean import volume	≈ 432,700 MT (FY2022–FY2026)	100,584 MT (FY2021-22 to FY2025-26)

Note. Compiled by the author from the Trading Division import datasets.

3.4 Analytical Procedures

Four analytical steps were applied to both commodities. First, descriptive analysis produced year-wise volume trends, source-country shares and importer league tables, from which concentration was measured as the combined share of the leading importers. Second, each importer was classified as a manufacturer (converts the material into a downstream product), a trader or distributor (resells without conversion) or a small mixed distributor. Third, the applicable basic customs duty (BCD), social welfare surcharge (SWS, 10% of BCD) and IGST treatment were mapped by origin, with IGST treated as a recoverable input credit for a registered reseller so that only BCD and SWS count as sunk duty. Fourth, economic models were built: SION-style per-kilogram cost build-ups for BPA derivatives and landed-cost and resale-margin models for both commodities.

Because neither dataset recorded invoice values, every price, landed cost and margin reported in Section 4 combines the volumes established from the primary data with indicative 2025–26 market benchmarks from the external literature. They are not derived from the transaction files and should be verified against live customs data and supplier quotations before any commercial decision is finalised.

4. Results

This section presents the two studies in parallel. Section 4.1 covers BPA, Section 4.2 covers CR, and Section 4.3 compares them.

4.1 Study 1: Bisphenol A

4.1.1 Product and market context

BPA (CAS 80-05-7) is a white crystalline solid with a melting point of 158–159 °C, produced at 40–70 °C using an ion-exchange resin or HCl catalyst, followed by crystallisation, distillation and flaking. Purity is at least 99.7% for polycarbonate grade and 99% for epoxy grade. Global capacity was about 8,700 KT a year in 2023 and is projected to reach about 11,000 KT by 2032. BPA has weak estrogenic activity (roughly 10,000 times weaker than natural 17β-estradiol), which underlies regulatory scrutiny of food-contact uses (PubChem, n.d.).

Globally, polycarbonate absorbs about 61–65% of BPA and epoxy resin (DGEBA) about 30–35%. India differs: because it imports finished polycarbonate rather than making it, the dominant domestic use of imported BPA is epoxy resin (about 84%), concentrated among converters such as Grasim, Atul, Hindusthan Specialty Chemicals and Kukdo Chemical India. The global market was valued at about US$20.1–23.9 billion in 2024, with Asia-Pacific holding 62–63% of capacity, and is forecast to reach US$27.3–32.9 billion by 2030 at 5–6% CAGR (Coherent Market Insights, 2025; Grand View Research, 2025). It is in slight structural oversupply, since China is adding more than 90% of new capacity through 2028, keeping utilisation near 60–70%. India’s BPA market (about US$2 billion in 2024) is growing faster, at about 6.8%, and the downstream epoxy market at about 7.8% a year, from about 185 KT in 2025 to a forecast 270 KT by 2030 (Mordor Intelligence, 2026).

4.1.2 Import trend and source countries

The 3,103 cleaned records total about 432,700 MT (Table 8; Figure 1). Imports peaked in FY2024 and FY2025 at 107,000–111,000 MT; FY2023 reflects a post-pandemic destocking dip, and FY2026 reflects partial-year capture at the



time of analysis. Sourcing is concentrated in FTA-partner countries (Figure 2): South Korea supplied about 41% of five-year volume, Thailand 33%, Taiwan 12%, Singapore 8%, Japan about 3% and China under 1%. Thailand, often overlooked in published literature, is therefore India's second-largest BPA source.

Table 8

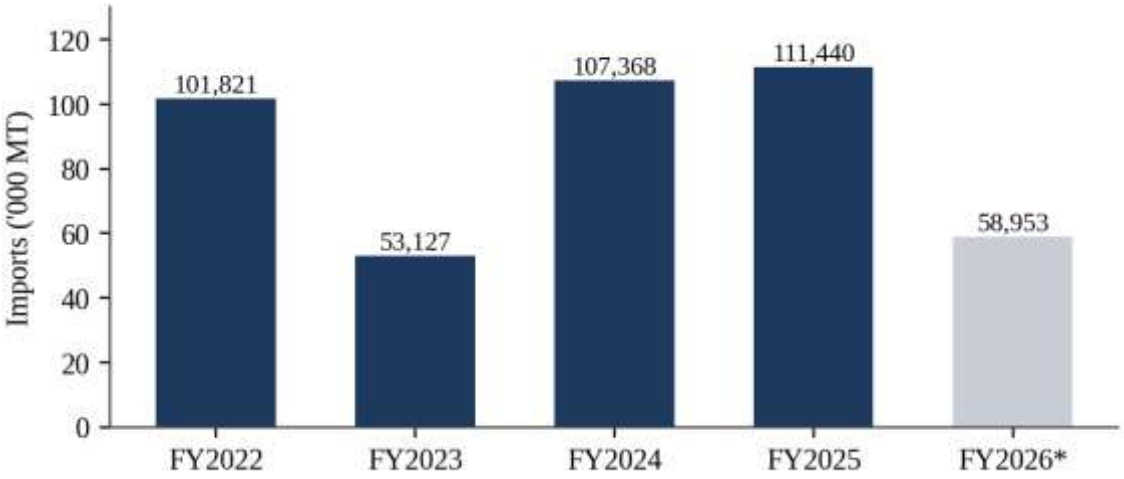
India's BPA Imports by Financial Year (MT)

Financial year	Imports (MT)	Interpretation
FY2022 (Apr 2021–Mar 2022)	101,821	High base
FY2023 (Apr 2022–Mar 2023)	53,127	Destocking dip
FY2024 (Apr 2023–Mar 2024)	107,368	Recovery
FY2025 (Apr 2024–Mar 2025)	111,440	Peak
FY2026 (Apr 2025–Mar 2026)	58,953	Partial-year capture
Five-year total	**432,709**	—

Note. Source: Consolidated BPA import transaction database, Atul Ltd. Trading Division; author's analysis.

Figure 1

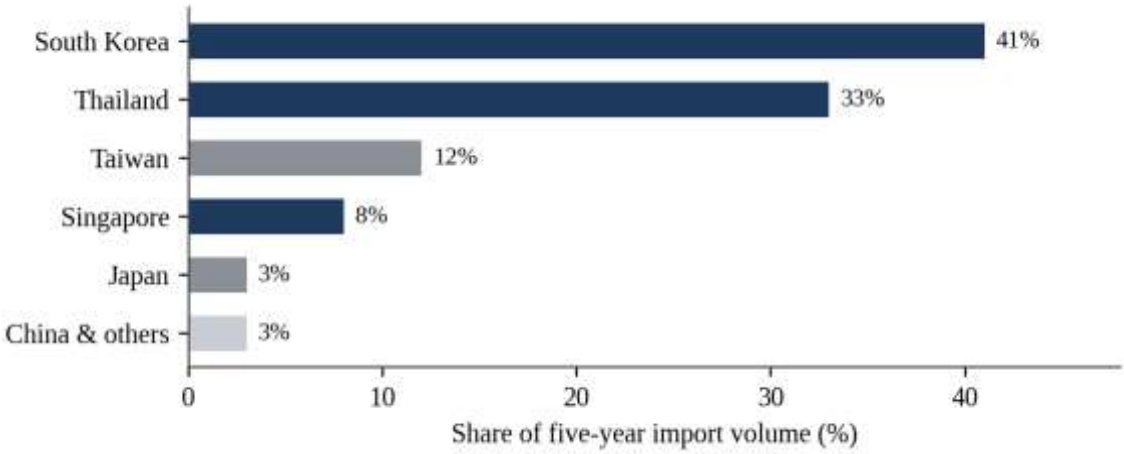
India's BPA Imports by Financial Year, FY2022–FY2026



Note. *FY2026 is a partial year. Source: Author's analysis of the BPA transaction dataset.

Figure 2

Share of India's BPA Imports by Source Country (Five-Year Volume)



Note. Dark bars denote FTA-partner origins (South Korea, Thailand, Singapore), together about 82% of volume. Source: Author's analysis.



4.1.3 Importer concentration

Concentration is extreme and stable (Table 9; Figure 3). Grasim Industries and Atul rank first or second in every year. Grasim accounts for about 44% of five-year volume (192,163 MT) and Atul for about 24% (105,147 MT), together roughly two-thirds. Atul's annual imports rose from 12,352 MT in FY2022 to 29,992 MT in FY2025, while Kukdo Chemical India's imports grew sharply in FY2026, indicating converter-led expansion in epoxy.

Table 9

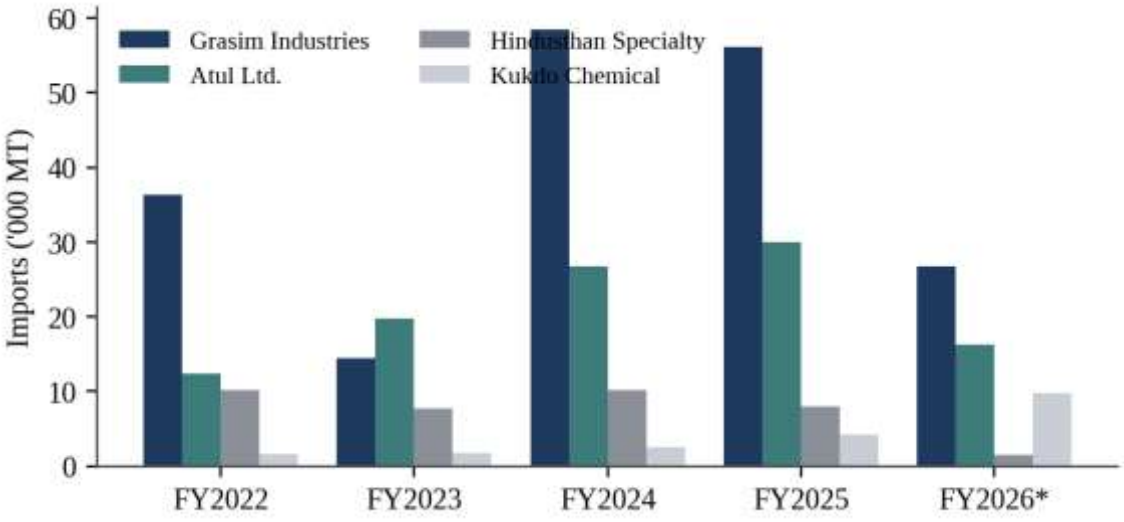
Year-Wise Top Importers of BPA into India (MT)

Importer	FY22	FY23	FY24	FY25	FY26	5-yr total
Grasim Industries	36,338	14,450	58,487	56,199	26,688	192,163
Atul Ltd.	12,352	19,743	26,814	29,992	16,246	105,147
Hindusthan Specialty Chem.	10,210	7,774	10,168	8,010	1,512	37,675
Kukdo Chemical India	1,680	1,824	2,540	4,180	9,764	19,988
Porus Laboratories	2,972	3,390	1,350	928	0	8,640
Others (30+ importers)	—	—	—	—	—	≈ 69,096

Note. Source: Author's analysis of the BPA transaction dataset.

Figure 3

Leading BPA Importers by Financial Year ('000 MT)



Note. *FY2026 is a partial year. Source: Author's analysis.

4.1.4 Traders versus manufacturers

Manufacturers dominate at about 90% of volume, explicit traders account for about 7% and a mixed tail of small distributors for the remaining 3% (Table 10). The main explicit traders (Shah C J World LLP, Paarichem Resources, Sojitz India, Amjey Chem Trade, Sahastraa Exports, K. Uttamlal & Co. and R Nandlal & Sons) source predominantly from Thailand's PTT Global Chemical and Taiwan's Chang Chun Plastics, at estimated CIF prices of US$1,150–1,300/MT and landed costs of ₹106–126/kg depending on the duty applicable to the origin. Manufacturers, led by Grasim (Epotec) and Atul (Lapox), convert BPA mainly into epoxy resins for coatings, adhesives, composites and wind energy.



Table 10

BPA Import Volume by Importer Type

Importer type	Volume (MT)	Share	Description
Manufacturers	388,043	89.7%	Convert BPA into a downstream product (mainly epoxy)
Explicit traders / distributors	30,276	7.0%	Resell BPA without conversion
Small distributors (mixed tail)	14,390	3.3%	Small chemical trading houses

Note. Source: Author's importer classification.

4.1.5 SION norms and epoxy-resin economics

Indicative SION-style norms at 2026 Indian prices (BPA about ₹108/kg landed, epichlorohydrin about ₹150/kg, caustic soda about ₹40/kg) put the cost of one kilogram of liquid epoxy resin at about ₹176 (Table 11). BPA accounts for about 37% of that total cost. At a typical commodity selling price of about ₹190/kg the conversion margin is about ₹14/kg (roughly 7%). Formulated and specialty grades, the segment of Atul's Lapox range, sell at roughly ₹300 to over ₹1,000/kg, so meaningful value in the BPA–epoxy chain is captured through formulation and conversion, not raw-material trading.

Table 11

SION Norms and Cost to Make 1 kg of Liquid Epoxy Resin

Input	Norm (kg/kg)	Price (₹/kg)	Cost (₹)
Bisphenol A	0.60	108	64.80
Epichlorohydrin (ECH)	0.45	150	67.50
Caustic soda (NaOH)	0.35	40	14.00
Raw-material subtotal	**1.40**	**—**	**146.30**
Conversion, utilities, overhead	—	—	30.00
Total cost to produce 1 kg	**—**	**—**	**176.30**
Typical commodity selling price	—	—	≈ 190
Indicative gross margin	—	—	≈ 14 (about 7%)

Note. Indicative estimates based on external 2026 price benchmarks (ChemAnalyst, 2026); not derived from transaction values.

4.1.6 Duty and FTA structure

BPA is classified under HS 2907.23.00. IGST of 18% applies on every route but is recoverable as input credit, so basic customs duty is the commercial differentiator (Table 12). Origins covered by FTAs (South Korea, Thailand, Singapore and Japan) enter at 0%, whereas Taiwan, China, Brazil, the United States and the EU bear 7.5% BCD plus SWS, an effective cash duty of about 8.25%. There is no anti-dumping duty on BPA itself, but duties apply to downstream liquid epoxy resin (five years from 17 November 2025, petitioned by Atul and Hindusthan Specialty) and epichlorohydrin (November 2024) (CBIC, 2025). The 8.25% gap explains why about 82% of India's BPA arrives from Korea, Thailand and Singapore.

Table 12

Country-Wise Duty Structure for BPA (HS 2907.23.00)

Origin	Trade agreement	BCD	Effective cash duty
South Korea	India–Korea CEPA	0%	~0% (Form AK certificate)
Thailand	India–ASEAN AITIGA	0%	~0% (ASEAN certificate)
Singapore	India–Singapore CECA	0%	~0%



Origin	Trade agreement	BCD	Effective cash duty
Japan	India–Japan CEPA	0% / reduced	~0%
Taiwan	None	7.5%	~8.25% (incl. 0.75% SWS)
China	None	7.5%	~8.25% (incl. 0.75% SWS)
Brazil / USA / EU	None	7.5%	~8.25% (incl. 0.75% SWS)

Note. Source: CBIC (2026); PwC (2026); author's mapping.

4.1.7 Trading viability

On a landed-cost basis, buying FTA-origin BPA and reselling at the domestic import-parity price yields only about a 0.8% gross margin, and a non-FTA (Taiwan) position loses money after the 7.5% duty. Three structural facts make pure BPA trading unattractive. First, there is no duty arbitrage, because every importer has the same near-zero FTA duty. Second, BPA is a commodity in global oversupply, so held inventory carries real price-fall risk. Third, the trader pool is small (7–10% of volume) and already served by incumbents earning thin 2–4% margins. The only defensible route would be Thai (PTT) and Korean (LG Chem, Kumho) supply under FTA, sold break-bulk to small formulators, which is a low-margin service rather than a growth opportunity and one that weakens further once domestic capacity (Deepak Nitrite, GNFC) arrives around 2027–28.

4.2 Study 2: Chloroprene Rubber

4.2.1 Product and market context

CR (polychloroprene or neoprene) is a synthetic elastomer made by free-radical emulsion polymerisation of chloroprene and first commercialised by DuPont in the 1930s. Its chlorine-bearing backbone gives resistance to oil, weather, ozone and flame, good strength and adhesion, and a service range of about −20 °C to +95 °C, at a premium over commodity rubbers. It is supplied as solid chips or bales and as latex, in sulphur-modified ("G"), mercaptan-modified ("W"), adhesive, latex and crystallisation-resistant grades. India has negligible domestic CR production. Globally, the top five producers (Denka, Arlanxeo, Tosoh, Resonac and Chinese producers such as the Chongqing group) hold about three-quarters of capacity.

4.2.2 Five-year import trend

Imports moved in a band of about 17,700 to 21,900 MT a year (Table 13; Figure 4). Volume fell 18.4% in FY2023-24, consistent with a global destocking cycle and softer adhesive and footwear demand, then recovered to a five-year high in FY2025-26. The recovery coincided with tightening supply: Denka raised its chloroprene price by US$200/MT in 2026 (Denka Company Limited, 2026), and Japanese spot CR rose to US$7,000–7,200/MT in mid-2025 when Chinese calcium-carbide output was constrained. Rising volume into a rising-price market signals genuine demand growth rather than opportunistic buying.

Table 13

India's CR Imports by Financial Year

Financial year	Volume (MT)	Shipments	YoY change
FY2021-22	19,339	1,852	—
FY2022-23	21,688	2,108	+12.1%
FY2023-24	17,689	2,002	−18.4%
FY2024-25	19,972	2,281	+12.9%
FY2025-26	21,897	2,103	+9.6%
Five-year total	**100,584**	**10,346**	**—**

Note. Source: Consolidated CR import shipment database, Atul Ltd. Trading Division; author's analysis.

Figure 4

India's CR Imports by Financial Year, FY2021-22 to FY2025-26



Note. Source: Author's analysis of the CR shipment dataset.

4.2.3 Source-country concentration

Japan supplied 57.9% of five-year volume, followed by China (18.2%) and Germany (16.0%) (Table 14; Figure 5). The United States has faded as a source, partly because Denka suspended its Louisiana plant indefinitely in 2025 after emissions-related regulatory pressure.

Table 14

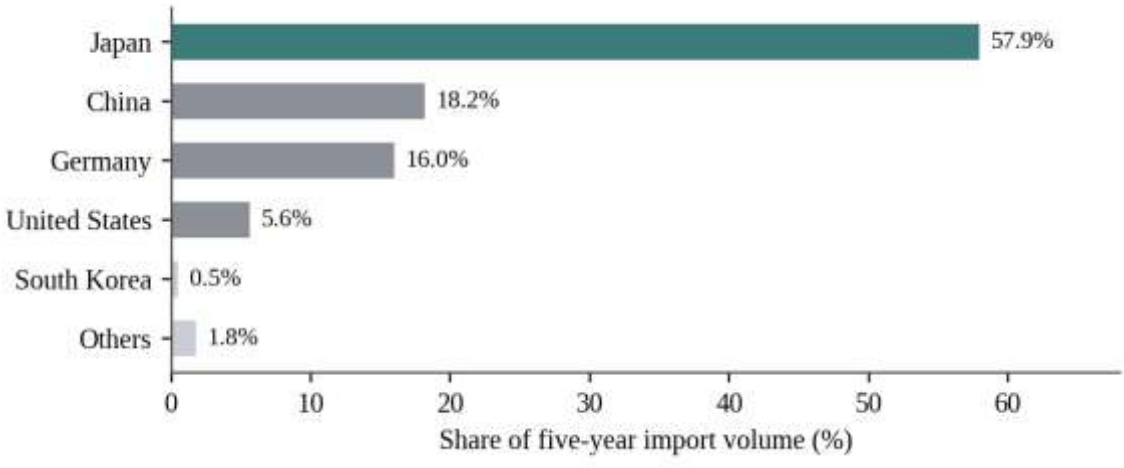
CR Import Volume by Origin Country and Financial Year (MT)

Origin	FY21-22	FY22-23	FY23-24	FY24-25	FY25-26	Total (share)
Japan	13,176	11,345	10,241	10,353	13,111	58,226 (57.9%)
China	2,118	3,904	4,681	4,256	3,364	18,324 (18.2%)
Germany	2,571	2,756	1,494	4,483	4,757	16,061 (16.0%)
United States	711	3,236	767	498	445	5,656 (5.6%)
South Korea	105	96	128	89	44	462 (0.5%)
Others	—	—	—	—	—	1,855 (1.8%)

Note. Source: Author's analysis of the CR shipment dataset.

Figure 5

Source-Country Share of India's CR Import Volume (Five Years)



Note. Teal denotes the CEPA-eligible origin (Japan). Source: Author's analysis.



4.2.4 Competitive landscape and end uses

The top 15 importers hold about 65% of volume and fall into three archetypes (Table 15): adhesive and sealant majors, led by Pidilite Industries; rubber-goods and power-transmission manufacturers (Bando India, PIX Transmissions, J.K. Fenner, Sundaram Industries); and specialist traders and compounders that redistribute CR to smaller converters (JMF, Hind Elastomers, Polmann, Globus, Nishigandha, Vista). End uses therefore span adhesives and sealants, V-belts and conveyor belts, automotive hoses, gaskets and seals, construction bearings and membranes, and bulk resale to small converters. Atul ranks twelfth with 2,170 MT (2.2%).

Atul is the only importer among the top 12 whose principal origin is China rather than Japan. About 69% of its CR (roughly 1,495 MT of 2,170 MT) is Chinese-origin at full duty, while the market leaders anchor on Japanese CEPA-origin material. On the supply side, two Japanese trading houses, Akros Trading (25.9%) and Shiraishi Calcium Kaisha (18.5%), route about 44% of all CR reaching India, chiefly Denka and other Japanese-origin material, and Arlanxeo (Germany, Baypren) is the largest single named producer-supplier at 10.3%. The trading and compounding layer handles well over 20,000 MT, so a resale market exists, but it is competitive and margin-thin because incumbents are established and familiar with CEPA procedures.

Table 16 maps the main end-use segments to representative importers.

Table 16

CR End-Use Segments Mapped to Representative Importers

End-use segment	Function of CR	Representative importers
Adhesives and sealants	Contact adhesives, construction sealants	Pidilite Industries
Power transmission	V-belts, timing and conveyor belts	Bando, PIX, J.K. Fenner
Automotive rubber goods	Hoses, gaskets, seals, mounts	Sundaram, Chemi Colour
Construction and infrastructure	Bridge bearings, joints, membranes	Mageba Bridge Products
Compounding and redistribution	Bulk resale to small converters	JMF, Hind Elastomers, Polmann, Globus

Note. Source: Author's analysis of the CR shipment dataset.

Table 15

Selected Leading Indian Importers of CR (Five-Year Volume)

Rank	Importer	Volume (MT)	Share	Main origin
1	Pidilite Industries Ltd	12,855	12.8%	Japan
2	JMF Performance Materials	6,724	6.7%	Japan
3	Hind Elastomers Pvt Ltd	5,472	5.4%	Japan
4	Bando India Pvt Ltd	5,231	5.2%	Japan
5	Polmann India Ltd	4,404	4.4%	Germany
6	Sundaram Industries	3,953	3.9%	Japan
9	PIX Transmissions Ltd	2,923	2.9%	Japan
10	J.K. Fenner (India) Ltd	2,763	2.7%	Japan
12	**Atul Ltd**	**2,170**	**2.2%**	**China**

Note. Ranks 7, 8 and 11 are omitted for brevity. Source: Author's analysis of the CR shipment dataset.

4.2.5 Duty and FTA structure

CR (HS 4002.49.00) is freely importable and carries a 10% MFN BCD. IGST of 18% is recoverable, so the unrecoverable cost is BCD plus the 10%-of-BCD SWS, about 11% of CIF value at full duty (Table 17). Japanese-origin goods qualify for 0% under the India–Japan CEPA in force since 2011, subject to rules-of-origin compliance and a valid



certificate of origin at the Bill of Entry. China, Germany (EU) and the United States have no agreement and pay the full rate.

Table 17

Effective CR Duty by Origin and Trade Agreement

Origin	Agreement	BCD	Sunk duty (BCD + SWS)
Japan	India–Japan CEPA	0%	~0% (CEPA certificate required)
China	None	10%	~11% (full MFN duty)
Germany (EU)	None in force	10%	~11% (full MFN duty)
United States	None	10%	~11% (full MFN duty)
South Korea	India–Korea CEPA	0–5%	~0–5% (minor volume)

Note. Source: CBIC (2026); PwC (2026); Sea Air Cargo Systems (2026).

4.2.6 Landed cost and resale margin

The model uses a representative CIF price of US$5,300/MT (Northeast Asian CR at about US$5,140/MT plus freight, late 2025) and an exchange rate of ₹87.5/US$, and treats IGST as a creditable, non-cost item (Table 18; Figure 6). The duty gap alone lifts the landed cost of full-duty origins from about ₹477.7/kg to ₹528.7/kg, a difference of about ₹51/kg.

Table 18

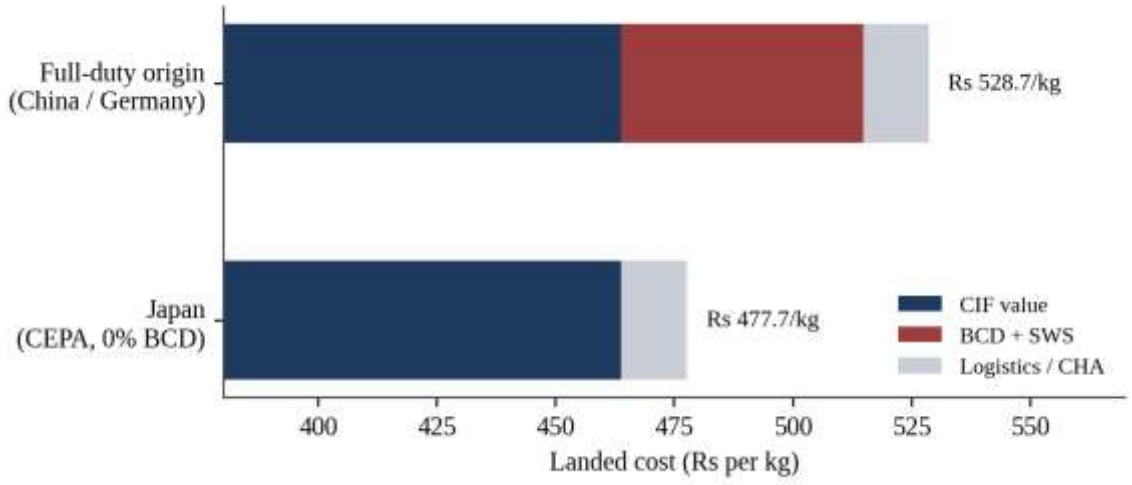
Landed Cost per Kilogram of CR by Origin (₹)

Line	China / Germany (full duty)	Japan (CEPA, 0%)
CIF value	463.8	463.8
+ BCD (10%)	46.4	0.0
+ SWS (1% of CIF)	4.6	0.0
+ Logistics / CHA (3%)	13.9	13.9
= Landed cost	**528.7**	**477.7**

Note. Assumptions: CIF US$5,300/MT; ₹87.5/US$. Source: Author's model based on ChemAnalyst (2026) and CBIC (2026).

Figure 6

Landed-Cost Build-Up for CR: Full-Duty Origin versus Japan (CEPA)



Note. BCD = basic customs duty; SWS = social welfare surcharge; CHA = customs house agent. Source: Author's model.

Applying a domestic resale price of ₹560,400/MT and a working-capital and holding cost of ₹11,594/MT gives a net trading margin of about ₹20,100/MT (3.8% of landed cost) for full-duty origins and about ₹71,100/MT (14.9%) for



Japanese CEPA-origin material (Table 19). A full-duty resale is only marginally profitable: a CR price move or a ₹3–4 exchange-rate swing could erase it. The identical goods earn roughly four times the margin from Japan purely because the 10% BCD disappears. Profitability in CR trading is therefore an origin-and-duty story, not a cheap-sourcing story. Re-export is generally not price-competitive against buyers sourcing directly from Japanese or Chinese mills; it becomes viable mainly through bonded-warehouse or Advance Authorisation routes, or with real value addition such as compounding, and is best treated as opportunistic overflow.

Table 19

Net Trading Margin per MT of CR by Origin

Per MT	China / Germany (full duty)	Japan (CEPA)
Domestic resale price (₹)	560,400	560,400
Landed cost (₹)	528,675	477,662
Working-capital / holding cost (₹)	11,594	11,594
Net trading margin (₹/MT)	**≈ 20,100**	**≈ 71,100**
Net margin (% of landed cost)	**≈ 3.8%**	**≈ 14.9%**

Note. Indicative; resale price and costs are external 2025–26 benchmarks.

4.2.7 Key risks

Six risks qualify the CR case. (a) *Price volatility:* spot CR swung from about US$5,150/MT to US$7,000–7,200/MT within 2025, and on a margin near 4% inventory bought before a fall quickly becomes loss-making. (b) *Exchange rates:* CIF is dollar-denominated, and a rupee move from 87.5 towards the low 90s adds several percent to landed cost, comparable to the whole full-duty margin. (c) *Rules of origin:* the 0% benefit depends on a valid certificate, and a rejected certificate converts a 14.9% deal into a 3.8% one. (d) *Competition:* the resale layer is established, and large buyers such as Pidilite and Bando import directly. (e) *Supply concentration:* Japanese supply runs largely through two trading houses, and Denka's US closure shows that supply can tighten quickly. (f) *Working capital:* bulk CR ties up cash over a 60–75-day cycle, and scaling up multiplies the exposure.

4.3 Comparative Summary

Table 20 compares the two studies. The same importer-concentration pattern appears in both, but the duty structure, and hence the trading answer, differs.

Table 20

Comparative Summary of the BPA and CR Findings

Dimension	Bisphenol A	Chloroprene rubber
Five-year import volume	≈ 432,700 MT	100,584 MT
Leading importer(s)	Grasim (~44%); Atul (~24%)	Pidilite (12.8%); Atul 12th (2.2%)
Main source	South Korea, Thailand, Singapore (~82% FTA)	Japan (57.9%), China, Germany
Duty position	Near-universal 0% (FTA)	10% BCD, except Japan 0% (CEPA)
Indicative trading margin	≈ 0.8% gross	≈ 3.8% (full duty); ≈ 14.9% (CEPA)
Decisive variable	Conversion value; no duty arbitrage	Country-of-origin duty status
Conclusion	Retain as feedstock; no trading desk	Preferential-origin distributor

Note. Source: Author's analysis; all margins are indicative.

5. Discussion

5.1 Interpretation of Findings

The two studies converge on one insight and diverge on its application. In both markets, supplier and buyer concentration squeezes intermediaries, and trading profitability is governed by duty and FTA status rather than by absolute commodity



price or sourcing skill. For BPA, the duty advantage is already universal among the importers that matter: about 82% of volume enters at zero duty, so no trader can differentiate on landed cost, and the 0.8% margin is the market's verdict on an undifferentiated, oversupplied commodity. The durable value lies downstream, in specialty epoxy formulation, and the November 2025 anti-dumping duty on imported liquid epoxy resin further protects it. This matches the value-chain argument that a downstream firm captures lasting value by conversion rather than resale (Porter, 1985).

For CR, the duty gap has not been arbitraged away. A 10% BCD separates the 14.9% margin on Japanese CEPA-origin material from the 3.8% margin on full-duty origins, and that gap is larger than the entire full-duty margin. The same finding exposes a gap in Atul's own sourcing: with about 69% of its CR bought from China at full duty, the company pays a duty that most leading importers avoid. The result illustrates the tariff-theory prediction in Section 2.1: preferential access creates value only where competitors have not already captured it.

5.2 Recommendations for Atul Ltd.

Bisphenol A: continue as feedstock, not as a trading line. **What:** keep importing BPA solely as feedstock for the Lapox epoxy business and do not set up a dedicated trading desk. **How:** concentrate sourcing on FTA-origin BPA (South Korea and Thailand) backed by airtight certificates of origin; buy from Taiwan only when its price discount exceeds the 8.25% duty gap; and, as an optional "captive-plus" step, contract slightly more FTA-origin BPA than needed and sell genuine surplus opportunistically. **Why:** pure resale offers about 0.8% margin and real inventory risk, whereas conversion, especially to specialty grades, captures more value and is now protected. **Future scope:** revisit the position as domestic capacity (Deepak Nitrite, GNFC) approaches commissioning around 2027–28.

Chloroprene rubber: reposition as a preferential-origin distributor. **What:** reposition CR activity as a bulk-breaking distributorship built on preferential origin, and re-source Atul's own consumption towards Japan. **How:** anchor supply on Japanese CEPA-origin CR through an established trading house (for example, Akros Trading or Shiraishi Calcium Kaisha) or a direct mill relationship; shift Atul's existing China-origin purchases, about 300 MT a year of its roughly 430 MT annual CR imports, to CEPA-qualifying Japanese material before pursuing external trade; sell to the long tail of small and mid-size converters that buy sub-container volumes and cannot run preferential imports of their own; and hedge currency exposure and cap inventory. **Why:** the duty-driven margin difference (3.8% versus 14.9%) is the only structural advantage available, and Atul is not yet capturing it even on its own consumption. **Future scope:** treat re-export as opportunistic, via bonded or Advance Authorisation routes or with value addition, and re-verify rules-of-origin compliance periodically because the CEPA and MFN outcomes differ so sharply.

Broader implication. For globally traded, near-commodity chemicals where India is import-dependent, the Trading Division can use the importer-classification, duty-mapping and landed-cost approach of this study as a standard first screen before pursuing any new bulk-trading opportunity.

5.3 Challenges and Limitations

Several practical challenges shaped the work. The CR data were spread across five differently structured worksheets, and inconsistent importer, supplier and country names would have understated concentration without careful consolidation. The BPA analysis had to be updated mid-project to reflect the November 2025 anti-dumping duty. The volume of data (over 13,000 combined transaction and shipment lines), together with the need to build duty and cost models from scratch within a fixed training period, forced choices about which cuts to analyse in depth. Converting statistical results into a recommendation that non-technical decision-makers could act on required repeated review with the company guides.

The findings must be read within five limitations. First, the datasets record quantity only, so all prices, landed costs, SION build-ups and margins are indicative 2025–26 estimates, not Atul's transaction values. Second, non-weight units (315 of 10,661 CR rows) were excluded, which slightly understates physical import volume. Third, FY2026 BPA data reflect a partial year and are not comparable in scale with complete years. Fourth, the study is confined to commercial and trade economics and does not examine process engineering, plant-level cost structures or Atul's internal procurement contracts. Fifth, third-party market-size and price figures differ across publishers and are indicative ranges, and the analysis reflects conditions current in mid-2026, to be reviewed around the expected 2027–28 domestic BPA capacity and any change in CEPA treatment of CR.

5.4 Learning Outcomes and Future Research

The training developed practical skills in cleaning inconsistent trade data, in landed-cost and SION modelling with correct treatment of creditable versus sunk duty, in importer and market-structure analysis, and in communicating technical analysis to senior managers. It also showed that estimation frameworks should state their assumptions openly and that policy analysis is a living exercise, as the mid-project duty change demonstrated. Future research could replace



external price benchmarks with invoice-level values, add sensitivity and working-capital models, extend the screen to other import-dependent chemicals, and track the effect of new domestic BPA capacity on trading economics.

Beyond technical skills, the placement built an understanding of how a trading division evaluates buy-versus-trade decisions, including the part that trade-remedy petitions play in competitive economics, and of customs mechanics (BCD, SWS, IGST creditability, HS classification and FTA rules) in practical detail. It also taught time and scope management across two linked projects, the discipline of separating primary findings, secondary literature and the author's own recommendations, and the value of regular review with senior stakeholders.

6. Conclusion

This study analysed 13,449 cleaned import records for two imported chemicals to answer a single question for Atul Ltd.: buy to convert, or buy to trade. For BPA, imports are concentrated in two firms, dominated by manufacturers and almost entirely duty-free, so a trading model yields only about a 0.8% gross margin and the evidence favours retaining BPA as feedstock for epoxy conversion. For CR, imports are dominated by Japan, a 10% duty applies to other origins, and a Japan-CEPA resale earns about 14.9% against 3.8% for full-duty origins, so the evidence favours a preferential-origin, bulk-breaking distribution model, beginning with the conversion of Atul's own China-origin purchases. The central lesson is that in import-dependent chemical trade, country-of-origin duty status matters more than commodity price. Because the margins are indicative and rest on external price benchmarks, Atul should confirm them against live quotations and customs data before committing capital.

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Declarations

Conflict of interest. The research was carried out during an on-the-job training placement at Atul Ltd., the organisation that is the subject of the study and that supplied the import datasets. The author declares no other financial or personal interests that could have influenced the work.

Funding. The author received no external funding for this research.

Ethical approval. The study used aggregated commercial import records and published sources only. It involved no human participants, personal data or animal subjects, and formal ethical approval was therefore not required.

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Appendices

Appendix A: Glossary of Key Trade and Duty Terms

Table A1

Key Trade and Duty Terms

Term	Meaning
Basic Customs Duty (BCD)	Primary tariff levied on the assessable (CIF) value of imported goods.
Social Welfare Surcharge (SWS)	Surcharge of 10% of the BCD amount.
IGST	Integrated GST on imports; generally recoverable as input tax credit by a registered importer.
Certificate of Origin (CoO)	Document certifying the originating country of goods, required to claim preferential FTA or CEPA duty rates.
SION	Standard Input–Output Norms: indicative per-kilogram consumption ratios of raw materials in a downstream product.
Landed cost	Total delivered cost at an Indian port or warehouse: invoice price, freight and insurance, duty, and port and clearing charges.



Appendix B: HS Code Reference

Table B1

Harmonized System Codes Used in the Study

Commodity	HS code	Description
Bisphenol A	2907.23.00	Phenols; phenol-alcohols: Bisphenol A (4,4′-isopropylidenediphenol)
Chloroprene rubber	4002.49.00	Synthetic rubber: chloroprene (chlorobutadiene) rubber, other

Appendix C: Underlying Project Reports

This paper consolidates two stand-alone project reports prepared for the host company's Trading Division: "A Study on Indian Market Dynamics, Competitive Landscape and Industrial Applications of Bisphenol A" and "A Study on Indian Market Dynamics, Competitive Landscape and Industrial Applications of Chloroprene Rubber". Full versions are available as supporting documents.