

3 August 2026

The Director - Investigations
Anti-Dumping Commission
GPO Box 2013
Canberra ACT 2601

**Titanium dioxide exported from the People's Republic of China
Investigation No. 699**

Dear Director,

This submission is made on behalf of Tronox Limited (“Tronox”), the sole Australian manufacturer of titanium dioxide, in Investigation No. 699 concerning titanium dioxide exported from the People’s Republic of China (China). This submission concerns the determination of normal value and, specifically, Tronox’s contention that a particular market situation (“PMS”) exists in the Chinese market for like goods, such that domestic selling prices are not suitable for establishing normal value under subsection 269TAC(1) of the *Customs Act 1901* (“the Act”).

In Consideration Report No. 699, the Commissioner accepted, on the information then available, that it is reasonable to find that a PMS exists in the titanium dioxide market in China, and indicated that the Commission would seek further information from exporters and the Government of China (“GOC”) to assess the claim independently during the investigation.

This submission is organised in two parts. Part A consolidates the case for a PMS as it is set out in the application and the material already before the Commission. Part B sets out further information identified by the applicant that was not contained in the application, such as additional Chinese policy and legal instruments (including the designation of titanium as a national strategic mineral), corroboration of the state ownership of the major producers, the integrated industrial structure of the Chinese producers and its implications for the construction of normal value, updated market data, and the recent actions of other investigating authorities.

1. The case for a particular market situation set out in the application

1.1 The legal standard

Section 269TAC(1) of the Act states the general rule that the normal value of goods exported to Australia is the price paid or payable for like goods sold in the ordinary course of trade for home consumption in the country of export, in arms-length transactions. That general rule applies unless one of the exceptions in subsection 269TAC(2) is engaged. The PMS exception is in subparagraph 269TAC(2)(a)(ii), which applies where the Minister is satisfied that, because the situation in the market of the country of export is such that sales in that market are not suitable for use in determining a price under subsection (1), the normal value cannot be ascertained under subsection (1). Where that threshold is satisfied, paragraph 269TAC(2)(c) provides that normal value is constructed on the basis of the sum of:

- (i) the cost of production or manufacture in the country of export, and
- (ii) the SG&A costs, and
- (iii) profit that would apply on a domestic sale in the ordinary course of trade.

The Act does not define the market situations that render domestic sales unsuitable. The Commission's Dumping and Subsidy Manual identifies as relevant whether prices are artificially low, and whether other conditions in the market render the sales unsuitable for use under subsection 269TAC(1). It identifies that government influence on prices or costs can be one cause of artificially low pricing.

Sections 269TAC(1) and (2)(c) implement Article 2.2 of the WTO Anti-Dumping Agreement ("the ADA"), under which, where 'because of the particular market situation ... such sales do not permit a proper comparison', the margin of dumping is determined by comparison with the cost of production plus a reasonable amount for SG&A and profits. The WTO Panel in *Australia — Anti-Dumping Measures on A4 Copy Paper*¹ ("Australia — A4 Copy Paper") construed this as a two-limb, fact-specific inquiry. Whether a PMS exists in the domestic market of the exporting country, and whether, because of that situation, the domestic sales do not permit a proper comparison of domestic and export prices.

The Panels in *Australia — A4 Copy Paper* and in *European Union — Cost Adjustment Methodologies and Certain Anti-Dumping Measures on Imports from Russia*² (Second complaint) (EU — Cost Adjustment Methodologies II) gave guidance on the meaning of the phrase that is directly applicable here:

The text of Article 2.2 does not support an interpretation of the phrase 'particular market situation' as referring to only one specific situation. The phrase does not lend itself to a definition that foresees all the varied situations that an investigating authority may encounter that would fail to permit a 'proper comparison'.

The market situation must be distinct, individual, single, specific — but that does not necessarily make it unusual or out of the ordinary, i.e. exceptional.

The Panels also confirmed that the phrase is not confined to a country 'as a whole', and found no basis to preclude an authority from examining whether prices are artificially low on the basis of supply-and-demand signals, alleged market distortions, or a comparison of product or input prices against world or representative-market prices. A PMS determination founded on low input prices, on a situation that does not exclusively affect domestic sales, or on government policies affecting the input sector, is not for those reasons inconsistent with Article 2.2³.

Other authorities have codified the same concept. Article 2(3) of the European Union's basic anti-dumping Regulation⁴ treats as a PMS, circumstances where prices are artificially low, where there is significant barter trade, or where prices reflect non-commercial factors. The

¹ WTO Panel Report, *Australia — Anti-Dumping Measures on A4 Copy Paper* (DS529), WT/DS529/R, (Exhibit B-3.1 to the application).

² WTO Panel Report, *European Union — Cost Adjustment Methodologies and Certain Anti-Dumping Measures on Imports from Russia* (Second complaint) (DS494), WT/DS494/R, (Exhibit B-3.2 to the application).

³ *Australia — A4 Copy Paper* (DS529), Panel Report (Exhibit B-3.1 to the application).

⁴ EU basic anti-dumping Regulation, Article 2(3) (Exhibit B-3.3 to the application)

United Kingdom's Regulation 7(4) is similar, and Brazil's regulation expressly provides that a PMS includes circumstances in which the formation of domestic prices, in particular those relating to basic inputs, does not occur under market conditions or is determined or significantly influenced by government action. These instruments do not bind the Commission, but they reflect a settled understanding that government determination or significant influence over the price of basic inputs is an example case of a PMS.

On the facts, the application establishes that the Chinese titanium dioxide sector is affected by significant distortions in prices and costs, including raw materials and energy, because of substantial government intervention. The distortions are the product of a documented framework of Chinese governmental policy, developed under the following headings.

1.2 Government and Communist Party direction of enterprises

China operates a socialist market economy in which the Chinese Communist Party (CCP) guides decision-making across both the public and private sectors, as stated in the General Program of the CCP Constitution and given concrete legal effect. Article 33 of the CCP Constitution⁵ requires primary-level Party organisations in non-public-sector entities to 'implement the Party's principles and policies' and to 'guide and oversee' their enterprises. Article 19 of the Company Law⁶ requires companies to establish CCP organisations and to 'provide the necessary conditions' for them to carry out Party activities.

These obligations are reflected in the sector through the overlap between senior management and Party office. The application identifies, among others, Mr Zhang Haitao (chairperson of LB Group, a member of the CCP); Mr Guo Jindong (chairman of the GPRO Group, parent of the producer Nanjing Titanium White, and Secretary of the Party Committee); Mr Lu Tianbao (chairman of the Lubei group, a National People's Congress representative and Secretary of the group's Party Committee); and the chairman of China National BlueStar, who concurrently holds the position of Party Secretary.⁷

1.3 State ownership and control of the major producers

The application identifies the largest Chinese producers of titanium dioxide as including LB Group, Jiuta Group, Titanos Group, CNNC Hua Yuan Titanium Dioxide Co., Ltd, Dawn Group, Boom (HK) Limited, Jinan Yuxing Chemical Co., and Yibin Tianyuan Haifeng Hetai, and shows that a significant part of the sector operates under the ownership, control or policy supervision of GOC authorities and the CCP.⁸

China National BlueStar, a large producer of both titanium dioxide and ilmenite, is a subsidiary of China National Chemical Corporation (ChemChina), within the Sinochem Holdings group, a state-owned enterprise group financed and owned by the central government. Pangang Group Vanadium Titanium & Resources, described as China's largest titanium-raw-material and an important titanium dioxide production base, is part of Ansteel, 'a large state-owned enterprise directly under the central government'. Shandong Jinhai

⁵ Constitution of the People's Republic of China (Exhibit B-3.7 to the application)

⁶ Company Law of the PRC (Exhibit B-3.8 to the application)

⁷ Application, section B-3 (Government Influence), citing LB Group's 2023 annual report (Exhibit B-3.35), the GPRO website (Exhibits B-3.10, B-3.21), the Lubei website (Exhibits B-3.11, B-3.15, B-3.16) and company profiles.

⁸ Application, section B-3.

Titanium Industry, the fourth-largest producer, is a state-owned holding company within the Shandong Lubei (state-owned) group. CNNC Hua Yuan is identified as China's second-largest producer.⁹ More generally, state-owned enterprises predominate in the upstream industries on which titanium dioxide production depends, including the mining and processing of ferrous and non-ferrous metal ores and the manufacture of raw chemical materials and chemical products. Where the producers of the goods and their key input suppliers are state-owned or state-controlled, commercial strategy is coordinated with state policy rather than set independently by the market.¹⁰

1.4 National five-year plans and strategic designation

Chinese five-year planning is the central mechanism by which the GOC sets, and market entities implement, sectoral priorities. The titanium sector, which includes titanium dioxide, is treated as strategic. The 13th Five-Year Plan identified breakthroughs in high-end equipment and new materials, including low-grade titanium slag optimisation, as a priority.¹¹ The 14th Five-Year Plan (2021–2025) maintains and intensifies that direction. As recorded in the materials accompanying the 2024 Shanghai International Titanium Dioxide Exhibition, the priorities for the industry include accelerating the transition from the sulphate to the chloride process, 'greening' the sulphate process, and because reconstruction and expansion mean domestic supply may exceed demand, expanding into international markets.¹²

The planning framework is not merely a statement. The application records that Nanjing Titanium Dioxide Chemical Co. publicly committed to 'conscientiously implement the spirit of the 20th National Congress of the Communist Party of China' and to 'strengthen political leadership' in the company's tasks, situating production and investment decisions within the political plan rather than independent commercial judgement.¹³

1.5 Export restrictions and preferential access to inputs

The GOC operates instruments that restrain the export of titanium inputs and so ensure cheap, preferential access for the domestic processing industry. Under the Catalogue of Goods Subject to Export Licence Management (2023) and the accompanying announcement of the Ministry of Commerce and the General Administration of Customs, exporters must obtain a licence to export specified titanium goods, including titanium white (HS 320611), unworked titanium sponge and other unworked titanium, titanium powder, titanium scrap

⁹ Application, section B-3 (Government Influence; titanium-bearing ores), citing the Ansteel company profile and sustainability report (Exhibits B-3.14, B-3.39), the Sinochem Holdings profile (Exhibit B-3.40), and the Lubei/Shandong Jinhai materials (Exhibits B-3.11, B-3.15, B-3.16).

¹⁰ Application, section B-3 (Government Influence), reciting state-ownership shares across upstream industries.

¹¹ Application, section B-3, citing the Circular of the State Council on Issuing the 13th Five-Year Plan (Exhibit B-3.19).

¹² Application, section B-3, citing the 2024 Shanghai International Titanium Dioxide Exhibition materials (Exhibit B-3.20), which record the expectation that expansion projects would add some 1.96 million tonnes/year of new capacity (more than 400,000 tonnes/year by the chloride process) that 'cannot be absorbed on the Chinese domestic market' and therefore 'incentivises the Chinese producers to export'.

¹³ Application, section B-3, citing Nanjing Titanium Dioxide Chemical Co.'s website. The European Commission's 2024 staff working document on significant distortions in the Chinese economy (Exhibit B-3.17) identified titanium dioxide as a principal manufacturing focus of the major chemical-producing provinces of Shandong, Jiangsu, Zhejiang, Sichuan and Hubei.

and waste, and ferro-titanium. The licence regime operates in practice as an export restraint securing preferential and cheap access to raw materials for the domestic industry.¹⁴

A second instrument operates through the value-added-tax (VAT) system. Whereas Chinese exporters can ordinarily claim a VAT refund on export, ilmenite, the primary feedstock for titanium dioxide, does not attract a VAT export refund. The OECD classifies withdrawal of a VAT export refund as an export restriction on industrial raw materials, because by denying reimbursement it makes export relatively less advantageous than domestic sale, encouraging downstream domestic processing of the input. The withdrawal of the ilmenite VAT refund thus depresses the domestic price of the key feedstock and reserves it for domestic producers of the goods.¹⁵

1.6 Grants, subsidised credit and development-zone benefits

The major producers receive substantial government grants and subsidies that lower their cost base. LB Group disclosed approximately US\$94 million of government subsidies in its stock-exchange filings between 2018 and 2023, with the 2023 annual report listing government grants across fourteen pages, including titanium-dioxide-specific grants. CNNC Hua Yuan is recorded as having received approximately US\$16 million of government subsidies in 2023.¹⁶

Producers located in China's National Economic and Technological Development Zones receive additional support, such as direct financial assistance and grants, preferential tax rates and holidays, subsidised or simplified land access, state-funded infrastructure, technology and R&D support, and export-promotion assistance.¹⁷ Distorted access to capital compounds these benefits. LB Group's reports disclose direct interest subsidies tied to titanium dioxide expansion projects, and state-owned banks extend credit with little regard to risk, as illustrated by the statement in the 2021 Aluminum Corporation of China report that, given 'strong support from the PRC government to these state-owned banks', the directors considered there was 'no significant credit risk' on the group's deposits.¹⁸

1.7 Distortion of the cost of titanium-bearing ores

Titanium-bearing ores are the single largest element of the cost of producing titanium dioxide, accounting for approximately 44% of the cost of production, and that feedstock cost in China is distorted by several overlapping forms of government intervention, including cross-subsidisation from iron-ore mining, below-benchmark ilmenite prices, withdrawal of

¹⁴ Application, section B-3 (Government Influence), citing the Catalogue of Goods Subject to Export Licence Management (2023) (Exhibit B-3.22).

¹⁵ Application, section B-3 (VAT refund withdrawal), citing the OECD methodology on export restrictions on industrial raw materials (Exhibit B-3.48).

¹⁶ Application, section B-3 (Access to Capital and Grants), citing LB Group's 2023 annual report (Exhibit B-3.9), the LB Group subsidy disclosures for 2018–2023 (Exhibits B-3.25 to B-3.30) and the CNNC Hua Yuan subsidy disclosure for 2023 (Exhibit B-3.31).

¹⁷ Application, section B-3 (Further Subsidies Granted to TiO₂ Producers Located in Development Zones), citing the National Economic and Technological Development Zones materials (Exhibits B-3.32, B-3.33) and the industrial-park materials (Exhibit B-3.34).

¹⁸ Application, section B-3 (Credit Risk), citing LB Group's 2021 annual report (Exhibit B-3.35) and the Aluminum Corporation of China 2021 annual report (Exhibit B-3.36).

the VAT export refund, captive mining and domestic-market obligations, and discriminatory waste-disposal policy.

China is the only country that produces significant quantities of ilmenite as a co-product of iron-ore mining. Recovering ilmenite from hard-rock iron-ore mining is far less efficient than from heavy-mineral-sand deposits and is economic only because iron-ore mining is itself subsidised. As the major ilmenite producers are vertically integrated, state-linked titanium dioxide producers, the subsidisation of iron-ore mining flows directly into the feedstock cost of the goods.¹⁹

Chinese ilmenite prices sit below representative international levels, with the application recording the average price of titanium ore in China falling 13.3% through Q2 2023 (from about US\$309 to about US\$270 per tonne) against a global average titanium-ore-and-concentrate import price of about US\$531 per tonne in 2022, and shows integrated producers (LB Group, Jinpu) obtaining feedstock 34–40% cheaper than the non-integrated Guangdong Huiyun.²⁰

Captive mining and domestic-market obligations keep ilmenite within the integrated producers' supply chains and out of international circulation. The Chinese titanium-ore market is highly concentrated in the Panxi region of Sichuan and dominated by a handful of vertically integrated, state-linked producers including Panzhihua Iron and Steel Vanadium Titanium, LB Group, Anning, and Chongqing Iron and Steel Xichang, whose ore is dedicated first to their own production. When LB Group acquired Anning (some 480,000 tonnes of ilmenite per year), its marketing director said the purpose was to enable the group to 'satisfy essentially all its sulphate pigment feedstock requirements' from captive supply.²¹

Finally, the GOC provides highly preferential, non-market access to waste disposal, allowing producers to dispose of the large volumes of waste generated by titanium dioxide production at negligible cost.

1.8 Distortion of energy and sulphuric-acid costs

Energy (electricity and gas) constitutes approximately 14% of the cost of production, and the United Kingdom's investigating authority, in its aluminium-extrusions investigation, found energy in China to be 'subject to price-setting or guided by local governments' and found a PMS in respect of the cost of energy. Sulphuric acid constitutes approximately 13% of the cost of production, with China subsidising carbothermal reduction of gypsum to produce sulphuric acid in integrated industrial eco-parks. Distortions in these two inputs compound the feedstock distortion and, with it, account for the majority of the manufacturing cost of the goods.²²

¹⁹ Application, sections A-10 and B-3 (cross-subsidisation from iron-ore mining), citing the OECD export-restrictions methodology (Exhibit B-3.48), USGS Mineral Commodity Summaries (Exhibit B-3.43), and the Lowy Institute and RUSI analyses of Chinese economic coercion (Exhibits B-3.38, B-3.18).

²⁰ Application, section B-3, citing the China Titanium Dioxide Market Report Q2 2023 (Exhibit B-3.41), the Global Titanium Ores and Concentrates Market Report 2025 (Exhibit B-3.42), the Xueqiu cost study of 5 June 2023 (Exhibit B-3.45) and the Guosen Securities report of July 2023 (Exhibit B-3.46).

²¹ Application, section B-3 (Captive mining and domestic market obligations), citing the OECD export-restrictions methodology (Exhibit B-3.48) and the report of LB Group's acquisition of Anning (Exhibit B-3.49).

²² Application, section B-3 (Energy; sulphuric acid), citing the UK final determinations (Exhibits B-3.37, B-3.51).

1.9 Overcapacity and artificially low domestic prices

The application establishes that the distortions above have facilitated an exponential increase in Chinese capacity and excess capacity over domestic consumption. As market forces do not discipline that growth through shutdowns or bankruptcies, and because the industry is highly capital-intensive, every producer is incentivised to run increasing capacity at high utilisation to lower unit costs, producing still more output. The result is intense domestic competition within a narrow, artificially low-price band and a structural surplus pushed onto export markets.²³

1.10 The particular market situation does not permit a proper comparison of domestic and export sales

Under the second limb identified in *Australia — A4 Copy Paper*, the Commission must be satisfied that, because of the PMS, the domestic sales of the exporters do not permit a proper comparison of domestic and export prices. A low-priced input used identically to produce goods for the domestic and export markets will not necessarily affect domestic and export prices in the same way, and whether a proper comparison is permitted ‘can only be ascertained through an examination of relevant factual circumstances’.²⁴

Three features satisfy that limb. First, the prevailing conditions of competition differ fundamentally between the Chinese domestic market and the Australian export market. In China the PMS distortions lower costs and suppress the risk of commercial failure, allowing producers to compete within a narrow, artificially low price band, whereas in Australia Tronox is the only producer, imports hold a substantial share of demand, and imports from China are the price leader. On the applicant’s data, Tronox’s share of the Australian market fell from about 66% in 2022 to about 57% in 2025, while the share held by imports from China rose to about 36%.²⁵

Second, the relationship between price and cost in China is itself distorted in a way that does not carry across to the export price. As titanium-bearing ores represent approximately 44% of the cost of production, and distortions are also present in energy, sulphuric acid and waste disposal, the artificially low domestic cost base feeds an artificially low domestic price, while the same input-cost distortion does not necessarily translate into a correspondingly low export price.²⁶

Third, the producers’ differential pricing, the price-increase announcement directed only at overseas markets, is direct evidence that domestic and export prices are not set on a common basis. It follows that, because of the PMS, domestic sales do not permit a proper comparison with export prices, and the second limb is met.²⁷

²³ Application, sections A-10 and B-3 (Market conditions in China).

²⁴ *Australia — A4 Copy Paper* (DS529), Panel Report (Exhibit B-3.1); see also *EU — Cost Adjustment Methodologies II* (DS494) (Exhibit B-3.2). The Panel emphasised that ‘a purely numerical comparison between the two prices may not reveal anything about whether the domestic price can be properly compared with the export price’.

²⁵ Application, section B-3 (The Prevailing Conditions of Competition Differ) and section A-10; market-share figures from the applicant’s June 2026 update materials (sources: China Customs; TZMI; S&P Global; internal estimates).

²⁶ Application, section B-3 (The Relationship Between the Price and Cost).

²⁷ Application, section B-3, citing the LB price announcement (Exhibit B-3.52).

2. Further relevant information identified

The following information was identified by Tronox following lodgment of its application, and was not contained in the application. It is more recent than, and corroborative of, the material in Part A. Parts of it derive from confidential analytical work prepared for Tronox and from third-party licensed reports.

2.1 Additional Chinese policy and legal instruments

Beyond the five-year plans cited in the application, several further instruments give the strategic designation of the sector operational effect.

In 2022, six departments led by the Ministry of Industry and Information Technology (MIIT) issued the Guiding Opinions on Promoting the High-Quality Development of the Petrochemical and Chemical Industry during the 14th Five-Year Plan, implementing the 14th Five-Year Plan for the Development of the Raw Materials Industry and setting capacity-utilisation and ‘industrial security’ objectives for the bulk chemicals that include titanium dioxide.²⁸

The National Development and Reform Commission’s Catalogue for Guiding Industry Restructuring (2024 edition), adopted on 1 December 2023 and effective from 1 February 2024, classifies industrial activities as ‘encouraged’, ‘restricted’ or ‘eliminated’. The applicant’s analysis is that the chloride process for titanium dioxide is in the ‘encouraged’ category while small-scale sulphate capacity is ‘restricted’ or ‘eliminated’, directing investment toward, and rationalising capacity within, the sector by administrative sanction rather than market signals.²⁹

The broader industrial-policy architecture, Made in China 2025 (State Council, Guo Fa [2015] No. 28), which names new materials and new-energy vehicles among ten priority sectors with self-sufficiency targets, situates titanium dioxide and its downstream titanium-metal and battery-materials chains within national strategic priorities.³⁰

The GOC’s tax treatment of the finished good is the reverse of its treatment of the input. While ilmenite (the feedstock) receives no VAT export refund, discouraging its export and reserving it for domestic processors, titanium dioxide continues to attract an export VAT rebate. When, by the Ministry of Finance and State Taxation Administration announcement of 15 November 2024 (effective 1 December 2024), China reduced the export rebate from 13% to 9% for refined oil, photovoltaic products and batteries and removed it for certain other goods, titanium dioxide was not among the products whose rebate was cut. The combined effect is a deliberate policy of discouraging input export and encouraging finished-

²⁸ Guiding Opinions on Promoting the High-Quality Development of the Petrochemical and Chemical Industry during the 14th Five-Year Plan (2022), issued by six departments including the MIIT. ([High-quality development of petrochemical industry on cards](#)).

²⁹ National Development and Reform Commission, Catalogue for Guiding Industry Restructuring (2024 edition), NDRC Order 2023 No. 7, adopted 1 December 2023, promulgated 27 December 2023, effective 1 February 2024. ([Catalogue for Guiding Industry Restructuring \(2024 edition\)](#))

³⁰ Made in China 2025, State Council document Guo Fa [2015] No. 28. ([Made in China 2025](#))

good export, with the effect that cheap inputs are channelled into domestic production and the resulting surplus is pushed abroad.³¹

Finally, the GOC's policy extends to directing the offshoring of capacity to circumvent foreign trade measures. The State Council's Guiding Opinions on Advancing International Cooperation in Production Capacity and Equipment Manufacturing (2015) call on enterprises to 'build production bases in key countries' through investment and acquisition. The largest Chinese producer has stated, in its own 2025 reporting, that it has 'actively implemented an overseas expansion strategy ... to ... effectively avoid high anti-dumping duties'.³²

2.2 Titanium designated a national strategic mineral: the revised Implementation Regulations of the Mineral Resources Law

A further and very recent instrument places the principal input for titanium dioxide directly within the GOC's system of strategic-resource control. On 15 May 2026 the State Council published the revised Regulations on the Implementation of the Mineral Resources Law, which took effect on 15 June 2026 and which bring titanium within China's national strategic-mineral framework.³³

The regulations establish a coordinated, state-directed regime for strategic minerals. They require coordination across fiscal, financial, land, industrial, trade and environmental policy across the whole chain from exploration to storage. They make competitive allocation the default for mining rights, and give priority to tendering for strategic mineral blocks with higher scarcity, larger reserves or special technical and environmental requirements. The regulations also allow the direct grant of mining rights for urgently needed strategic minerals with State Council approval, outside the usual competitive process, and strengthen a strategic-mineral reserve and emergency system, including product, capacity and origin reserves, alongside extraction and ecological-restoration obligations.³⁴

The significance for this investigation is direct. Titanium-bearing ore is the single largest input into titanium dioxide, approximately 44% of the cost of production, and China holds the world's largest titanium reserves, concentrated in the Panxi (Panzhihua–Xichang) region of Sichuan, over 90% of which is low-grade vanadium-titanium magnetite consumed primarily by the sulphate-process titanium dioxide sector.³⁵ By bringing that resource under centralised mining-rights approval, state allocation, extraction quotas and reserve requirements, the regulations place the price and availability of the key input squarely within

³¹ Ministry of Finance and State Taxation Administration, Announcement on the Adjustment of Export Tax Rebate Policies (MOF–STA Announcement [2024] No. 15), issued 15 November 2024, effective 1 December 2024. ([Announcement on Adjusting Export Tax Rebate Policy](#))

³² State Council, Guiding Opinions on Advancing International Cooperation in Production Capacity and Equipment Manufacturing, Guo Fa [2015] No. 30, issued 13 May 2015, published 16 May 2015. ([Promoting International Cooperation in Production Capacity and Equipment](#))

³³ Regulations on the Implementation of the Mineral Resources Law, published by the State Council of the People's Republic of China on 15 May 2026, in force from 15 June 2026, as recorded in the IEA Policies Database (<https://www.iea.org/policies/31870-regulations-on-the-implementation-of-the-mineral-resources-law>; entry 31870) and reported by the trade press (etio2.com, 23 June 2026, 'Effective June 15: China Officially Upgrades Titanium to a National Strategic Mineral').

³⁴ IEA Policies Database, entry 31870 (citing the State Council regulation and the Ministry of Justice interpretations). ([Regulations on the Implementation of the Mineral Resources Law](#)).

³⁵ [China Officially Upgrades Titanium to a National Strategic Mineral](#).

the determination or significant influence of the GOC. That is a prime example of a particular market situation recognised by the comparative authorities and by the WTO Panel guidance that government policies affecting the input sector can be found to be a PMS.

Trade-source analysis of the new regime indicates that it will choke off low-end, non-integrated processors through extraction quotas and environmental limits and accelerate consolidation toward the vertically integrated, state-linked producers that control domestic mining rights, reinforcing the captive-mining, domestic-market-allocation and concentration features described in the application, and the integrated-producer thesis outlined below.³⁶ Although the regulations took effect on 15 June 2026, after the dumping investigation period, they codify and intensify the pre-existing state control of titanium resources on which the applicant's claim rests, and are directly relevant to the Commission's assessment of whether a market situation exists.

2.3 Control of the major producers

The state-linked character of the sector is particularly pronounced in the chloride process and the associated titanium-metal chain. On the figures in the applicant's materials, the three largest chloride producers, LB Group, CITIC (a state-owned enterprise) and Pangang (a state-owned enterprise), together account for the substantial majority of Chinese chloride titanium dioxide capacity (LB Group about 61%, CITIC about 16% and Pangang about 4% of national chloride capacity), and Pangang is a subsidiary of the central state-owned steel and iron-ore group Ansteel. Audited 'government subsidies' line items continue to appear in the producers' recent filings, including LB Group's disclosure of RMB 30.71 million of government subsidies in its profit and loss for the first quarter of 2024.³⁷

2.4 The integrated industrial structure of the Chinese producers and its implications for normal value

The most significant body of additional information concerns the structure within which Chinese titanium dioxide is produced. The major Chinese producers do not operate as stand-alone pigment manufacturers. Titanium dioxide sits at the centre of an integrated 'titanium value' complex spanning vanadium-titanium magnetite and ilmenite mining, inorganic chemistry (sulphuric acid, phosphate fertiliser), titanium metal (titanium tetrachloride, sponge and ingot) and battery materials (lithium iron phosphate cathode), and the production complexes are co-located inside state-designated chemical industrial parks that share captive power, steam, water-treatment and waste-handling infrastructure.³⁸

Two features of that structure bear directly on cost and price. On the sulphate route, ferrous sulphate, historically an unsold waste stream of titanium dioxide production, has become a high-volume precursor for lithium iron phosphate battery cathode, so that producers including LB Group and CNNC Hua Yuan have redirected the stream into integrated battery supply chains (CNNC Hua Yuan, for example, committing some US\$1.9 billion to phased 500,000 t/y lithium-iron-phosphate capacity in Gansu). On the chloride route, titanium

³⁶ Ibid.

³⁷ Exhibit 2.3-2: Briefing material 1 - Chinese Producers upstream and downstream integration and cost allocation.

³⁸ Ibid.

dioxide production is integrated with chlor-alkali chemistry. With China holding more than 40% of global chlor-alkali capacity, around 75% of Chinese chlorine is consumed in captive downstream uses, and about 95% of gross chlorine is recycled internally so that net make-up is only 0.10–0.20 t per t TiO₂, surplus chlorine clears at near-zero or negative effective merchant value. Meanwhile, titanium tetrachloride, the shared intermediate, feeds pigment, merchant sales and Kroll-process titanium sponge for the aerospace and defence supply chain (China produces around 69% of the world's titanium sponge, about 220,000 tonnes in 2024).³⁹

The legal significance of this structure is that a constructed normal value built on a producer's titanium-dioxide-segment cost data will tend to understate the true competitive cost base, for the following reasons. First, where titanium dioxide is one product of a joint-product process, the allocation of joint costs between titanium dioxide and its co-products (ferrous sulphate, titanium tetrachloride, chlorine, steam) is elected by the producer under the applicable accounting standards, so co-product credits can be taken in a manner that depresses the apparent cost of the pigment. The applicant's modelling indicates that the choice of ferrous-sulphate valuation alone can move the apparent titanium dioxide cash cost across a range of approximately US\$420 to US\$1,295 per tonne, a swing of about US\$770 per tonne, and larger than any of the definitive anti-dumping duty rates set against Chinese titanium dioxide in 2024–25. Second, intra-group transfers of those co-products and intermediates are not arm's-length tested. Finally, the costs of shared chemical-park infrastructure are borne partly by state-owned park operators rather than by the producer. Each tends to understate the cost to make and sell on which a constructed normal value depends.⁴⁰

On Tronox's estimates, the chlorine-power differential alone yields about US\$150 per tonne of TiO₂ on the chloride route, with a further US\$30–60 per tonne from cheaper petroleum coke, and the capital intensity of Chinese chloride capacity (for example LB Group's Jiaozuo plant at about US\$850–1,425 per tonne of annual capacity) is a fraction of the OECD greenfield rule of thumb of about US\$3,500–5,000 per tonne.

The integration also insulates the group from the pigment cycle. In 2024, as titanium dioxide prices fell, the most integrated producer (LB Group) recorded a net-profit decline of about 33% while its operating cash flow rose, whereas the least integrated of the four major producers (Anhui Annada) recorded a net-profit decline of about 83%. For Pangang, titanium dioxide is merely one co-product of a vanadium-titanium magnetite orebody (titanium products about 48% and vanadium about 32% of 2024 sales), making it impossible to estimate the cost of its titanium dioxide on a stand-alone basis. A producer whose group cash flow is supported across an integrated portfolio can sustain pigment pricing that an independent producer could not, which is itself a hallmark of a market that does not operate on ordinary commercial terms.⁴¹

2.5 Updated market data: overcapacity, the export surge and below-cost pricing

The application's qualitative case on overcapacity is corroborated by updated industry data. By the end of 2024, Chinese titanium dioxide capacity had reached approximately 6.05

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Ibid.

million tonnes (up about 16.5% year-on-year), with 2024 output of approximately 4.81 million tonnes (up about 14.1%), and industry analysis prepared for the applicant projects a further addition of roughly 1.5 million tonnes of Chinese capacity by 2030, around 40% of it via the chloride process. At the same time, since 2023 some 632,000 tonnes of non-Chinese capacity has closed.⁴²

Chinese exports have continued at record levels, approximately 1.90 million tonnes in 2024 (up about 15.8% year-on-year), with exports for the year to April 2026 of about 747,000 tonnes (up about 12% on the same period of 2024) and first-quarter 2026 exports of about 549,000 tonnes (up about 13% on the preceding quarter). Tronox's evidence is that, until the recent regional supply shock, Chinese producers were consistently lowering export prices despite sustained financial losses, conduct difficult to reconcile with ordinary commercial behaviour and consistent with the absence of market discipline that the PMS produces.⁴³

Independent feedstock-market analysis confirms that the domestic/international price divergence persists. TZMI's Titanium Feedstock Price Forecast (Issue 1, 2026) reports that Chinese domestic feedstock prices remain at least 20% below non-China markets for comparable products, for example domestic chloride slag (90% TiO₂) at about RMB 5,450 per tonne incl. VAT (~US\$700 per tonne CIF-equivalent) against comparable South African or Norwegian chloride slag, and Panzhihua ilmenite at about RMB 1,588 per tonne (Grade 10#) and RMB 1,849 per tonne (Grade 20#), excl. VAT, in December 2024, continuing the downward trend in domestic ilmenite prices through 2025.⁴⁴

2.6 Validating actions by other investigating authorities

Anti-dumping measures against Chinese titanium dioxide are now in force in the European Union, Brazil and Saudi Arabia. In India, duties imposed in May 2025 were set aside on procedural grounds by the Calcutta High Court in September 2025, and the matter is on remand before the investigating authority. Further actions are under way with the United Kingdom⁴⁵ launching an investigation on 3 March 2026 (with import registration directed on 26 March 2026⁴⁶ and a decision on provisional duties expected in July or August 2026), [REDACTED]

[REDACTED] **[Confidential trade remedy matters]**

2.7 Consequence for normal value

Both limbs being satisfied, domestic selling prices in China are not suitable for establishing normal value under subsection 269TAC(1), and normal value is properly constructed under paragraph 269TAC(2)(c) as the cost to make and sell plus profit, with input costs adjusted to remove the distortions. The Commission has already accepted prima facie, that it is unlikely

⁴² Public capacity/output data reported by, among others, Blooming Global and Hangzhou Harmony Chemical. The projected additions to 2030 and the non-Chinese closure total are from [REDACTED] analysis prepared for Tronox's May 2026 Board strategic review (refer to [Exhibit 2.3-2](#) -Briefing Material 1).

⁴³ [Exhibit 2.5-1](#): Trade data sourced from China Customs and TZMI and compiled in Briefing material 2 – Updated Chinese export activity & trade defense actions.

⁴⁴ [Exhibit 2.5-2](#): TZ Minerals International Pty Ltd, Titanium Feedstock Price Forecast, Issue 1 2026 (licensed for the exclusive use of Tronox Holdings).

⁴⁵ [TRA opens investigation into Chinese imports of titanium dioxide](#)

⁴⁶ [Registration of imports of Rutile Titanium Dioxide from China](#)

LB Group's production costs reflect market-competitive costs, and that it is reasonable for the applicant to uplift the feedstock cost, with the SG&A and profit estimates drawn from LB Group's financials also reasonable.

The applicant's constructed normal value relies on the 2024 TZMI Pigment Producers Comparative Cost & Profitability Study for LB Group's Jiaozuo (chloride-process) plant, with the feedstock cost uplifted by 32%, the average 2023 price differential, disclosed in LB Group's 2023 annual report, between imported and domestically procured titanium ore. On that basis the estimated dumping margin is 48% for CY 2025, or 31% without the feedstock uplift. The difference between the two is the quantified footprint of a single, conservatively measured input distortion, and it understates the full effect of the PMS because the other distorted inputs have not been adjusted.

3. Construction of normal value: the rejection and replacement of distorted input costs

A finding that a particular market situation exists, and that domestic sales do not permit a proper comparison, leads directly to the construction of normal value under paragraph 269TAC(2)(c) of the Act. Tronox's position is that the recorded costs of the three principal inputs, being titanium-bearing ores, energy and sulphuric acid, do not reasonably reflect competitive market costs and should be rejected and replaced with appropriate competitive-market benchmarks.

3.1 The statutory basis: normal value must be built on competitive market costs

Under paragraph 269TAC(2)(c), the constructed normal value is the sum of the cost of production or manufacture of the goods in the country of export and the amounts for SG&A and profit. By subsection 269TAC(5A), the amount to be the cost of production or manufacture must be worked out in the manner, and taking account of the factors, provided by the regulations for the purpose of paragraph 269TAC(4)(a).

The relevant regulation is regulation 43 of the Customs (International Obligations) Regulation 2015. Regulation 43(2) provides that, where an exporter or producer keeps records relating to the like goods, the Minister must work out the cost of production using those records only if the records "*(i) are in accordance with generally accepted accounting principles in the country of export; and (ii) reasonably reflect competitive market costs associated with the production or manufacture of like goods*". Regulation 43(8) further provides that the Minister may disregard any information that he or she considers to be unreliable.

Two consequences follow. First, the obligation to use the producer's recorded costs is conditional. It arises only where both conditions of regulation 43(2)(b) are satisfied. Where the second condition is not satisfied, that is, where the records do not reasonably reflect competitive market costs, the Minister is not required to use the recorded cost, and may instead determine the cost of production on a basis that does reflect competitive market costs, consistent with the opening words of s 269TAC(2)(c)(i) ("such amount as the Minister determines to be the cost of production") and with regulation 43(8). Secondly, the criterion fixed by the Australian regulation is "competitive market costs", not merely the costs actually recorded by the producer. Where government intervention has displaced the operation of

competitive market forces in the markets for the inputs, the recorded input costs do not meet that standard and are to be replaced.⁴⁷

Finally, by subsection 269TAC(9), where normal value is constructed under paragraph 269TAC(2)(c) the Minister must make such adjustments as are necessary to ensure that the normal value is properly comparable with the export price. The replacement of distorted input costs with competitive-market benchmarks is the means by which a properly comparable normal value is achieved.

3.2 The particular market situation means the recorded input costs do not reflect competitive market costs

The evidence outlined in the earlier sections of this submission establishes that the prices of the three principal inputs into titanium dioxide are not set by competitive market forces but are determined or significantly influenced by the GOC. The cost of titanium-bearing ores is distorted through:

- cross-subsidisation from iron-ore mining, captive mining and domestic-market allocation,
- below-benchmark ilmenite pricing,
- the withdrawal of the ilmenite VAT export refund, and
- the designation of titanium as a national strategic mineral subject to centralised mining-rights allocation and extraction quotas.

The cost of energy is distorted through price-setting and local-government guidance and captive low-tariff power in chemical parks, whilst the cost of sulphuric acid is distorted through subsidised production and co-located, captive supply within integrated chemical parks. It follows that, for each of these inputs, the producers' records do not reasonably reflect competitive market costs, the condition in regulation 43(2)(b)(ii) is not satisfied, and the recorded cost is to be disregarded and replaced.

These distortions have a material impact on the costs of production. On the figures presented in the application, titanium-bearing ores account for approximately 44%, energy approximately 14% and sulphuric acid approximately 13% of the cost of production, together approximately 71% of the cost to make. The correctness of the constructed normal value therefore turns on the treatment of these three inputs.

3.3 Titanium-bearing ores (approximately 44% of the cost of production)

For the reasons developed earlier in this submission and reinforced by the recent designation of titanium as a national strategic mineral, the recorded cost of titanium-bearing ores does not reflect competitive market costs and should be rejected. It should be replaced with a benchmark that reflects the price of titanium feedstock in a competitive market. In the application, the applicant adopted a conservative benchmark drawn from the producers' own data, relating to the price of imported titanium ore, which on LB Group's 2023 disclosures was 27% to 37% higher than domestically procured ore, to which Tronox applied an average uplift of 32% to the feedstock cost. That import-into-China benchmark is a sound starting

point because it reflects international supply and demand without the domestic distortions, and importantly is reflective of a price in Chinese market.⁴⁸ As section 3.6 explains, however, the evidence now before the Commission demonstrates that import prices into China are themselves suppressed by the particular market situation. The 32% uplift is accordingly to be treated as a conservative floor, and the definitive benchmark should be drawn from the independent published TZMI price series identified in section 3.6.

3.4 Energy (approximately 14% of the cost of production)

Energy is the second-largest input. The application relied on the United Kingdom authority's finding that energy in China is subject to price-setting or guided by local governments, and the integrated-economics evidence above shows the major producers drawing captive coal and hydro power within chemical parks at tariffs well below the industrial-grid prices paid elsewhere. The recorded energy cost therefore does not reflect competitive market costs and should be rejected and replaced with an undistorted, competitive-market energy benchmark. Because no adjustment to energy was made in the application, benchmarking energy will increase the constructed normal value above the current estimate.⁴⁹

3.5 Sulphuric acid (approximately 13% of the cost of production)

Sulphuric acid is the third principal input. The application records that China subsidises the carbothermal reduction of gypsum to produce sulphuric acid in integrated industrial eco-parks, and the integrated-economics evidence above shows that sulphuric acid, and the related ferrous-sulphate co-product stream, is being produced and transferred within the same captive complexes rather than purchased at arm's length. The recorded sulphuric-acid cost therefore does not reflect competitive market costs and should be rejected and replaced with a competitive-market benchmark. As with energy, no adjustment to sulphuric acid was made in the application, so benchmarking it will further increase the constructed normal value.⁵⁰

3.6 The approach to benchmarks

The benchmark for each distorted input must satisfy two conditions. First, it must reflect the cost that would prevail in a competitive market, because that is the standard fixed by regulation 43(2)(b)(ii) and by the opening words of subparagraph 269TAC(2)(c)(i). Secondly, it must be independent of the market conditions that constitute the particular market situation. A benchmark drawn from prices that are formed within, or in direct competition with, the distorted Chinese domestic market simply re-imports the distortion into the constructed normal value. The adjustment becomes circular, and the resulting normal value is neither built on competitive market costs nor properly comparable with the export price as subsection 269TAC(9) requires. Consistently with regulation 43(8), the Commission may disregard information that it considers to be unreliable, and it is submitted that a price series

⁴⁸Application, sections B-3 and B-4; LB Group 2023 Annual Report (Exhibit B-3.9). The 32% feedstock uplift adopted in the application is conservative and is the only input adjustment so far reflected in the estimated 48% margin.

⁴⁹Application, section B-3 (Energy), citing the UK final determinations (Exhibits B-3.37, B-3.51); Part B, section 3.4 (captive power in chemical parks; NDRC industrial-tariff data).

⁵⁰Application, section B-3 (sulphuric acid);

that is itself a product of the particular market situation is unreliable for benchmarking purposes.

In the application, Tronox identified three possible approaches to benchmark selection, in order of preference:

- the price of the input imported into China;
- the price of the input in a representative competitive market, adjusted as necessary to Chinese conditions; and
- an independent published benchmark from a reputable source.

The evidence Tronox now presents to the Commission, in particular TZMI's Titanium Feedstock Price Forecast to 2030 (Issue 2, 2026, reissued 30 June 2026) ('TFPF Issue 2 2026') and the TZMI TiO₂ Pigment Producers Comparative Cost and Profitability Study 2025 ('PCS 2025')⁵¹, demonstrates that the first two approaches are not in fact available for any of the three distorted inputs, because each is tainted by the same domestic market conditions that give rise to the particular market situation. Only the third approach is capable of yielding an undistorted and verifiable benchmark. Each approach is considered below.

3.7 Import prices into China

A price for goods imported into China is not formed independently of the Chinese domestic market. China is the largest consuming region for titanium feedstocks, and every tonne sold into China is priced against the buyer's alternative of distorted domestic supply. Exporters selling into China must meet the domestic price level that the particular market situation has produced. Where they cannot, volumes are redirected. The import price observed at the Chinese border is therefore not an expression of 'international supply and demand received at the Chinese border without the domestic distortion'. It is instead the international price as affected by the distorted domestic price. An import-into-China benchmark therefore does not remove the distortion; it simply measures it from the other side.

TZMI's most recent data confirms this. TFPF Issue 2 2026 records, as a general observation across the high-grade feedstock complex, that 'the weighted average prices of several high-grade feedstocks have been negatively impacted by an increasing share of sales into China, where pricing remains lower than in traditional Western markets', and, in respect of imported ilmenite, that '[o]ngoing weakness in the Chinese domestic market is also expected to continue exerting downward pressure on imported ilmenite pricing'.⁵² TZMI has therefore itself identified the Chinese domestic market as the cause of the depressed prices for material sold into China.

The pricing information covering the investigation period is outlined in Table 1 below, and is consistent across the feedstock categories. For sulfate ilmenite, the average of TZMI's quarterly weighted average import prices into China across 2025 was approximately US\$ [REDACTED] per tonne CIF, against approximately US\$ [REDACTED] per tonne CIF for the same product delivered into both Asia-Pacific markets other than China and North America. This represents a

⁵¹ Exhibit 3.7-1: TZ Minerals International Pty Ltd, Titanium Feedstock Price Forecast to 2030, Issue 2 2026 (reissued 30 June 2026); TZ Minerals International Pty Ltd, TiO₂ Pigment Producers Comparative Cost & Profitability Study 2025 (Application, Exhibit B-3.53).

⁵² *Ibid.*, pp 9 and 22.

discount of approximately 12% on identical goods, with the gap widening through the period. In Q4 2025, within the investigation period, the China price fell 14% sequentially to US\$ [REDACTED] per tonne CIF against US\$ [REDACTED] for Asia-Pacific ex-China and US\$ [REDACTED] for Europe and the Middle East. TZMI's Q4 2025 review records that imports from Nigeria entered China at the lowest weighted average price among major suppliers, at US\$ [REDACTED] per tonne CIF, that ilmenite from Senegal into China fell by approximately US\$ [REDACTED] to about US\$ [REDACTED] per tonne CIF, and that the weighted average price of sulfate ilmenite bound for beneficiation use in China declined 24% quarter-on-quarter to US\$ [REDACTED] per tonne CIF in Q4. Those import prices converge on the distorted domestic price itself: Panzhihua Grade 10# ilmenite averaged RMB [REDACTED] per tonne (excluding VAT) across 2025, down 17% year-on-year. That convergence is direct evidence that import prices have been drawn down to the level set by the distorted domestic market.⁵³

The same pattern holds for the other categories during the investigation period. For chloride slag, TZMI states expressly that the 2025 global weighted average price 'is increasingly influenced by rising volumes into China, where shipment prices are typically approximately 10-15% lower than those observed in non-China markets', with chloride slag imports into China growing 146% over the 2024 level and 'exerting downward pressure on the weighted average price'. For sulfate slag, TZMI records those shipments into Europe 'are generally higher than those imported into China', with imports into China generally occurring 'at approximately US\$ [REDACTED] per tonne CIF (or US\$ [REDACTED] per tonne FOB)'; on the quarterly data, imports into China averaged approximately US\$ [REDACTED] per tonne CIF across Q1 to Q3 2025 against approximately US\$ [REDACTED] per tonne CIF into Europe and the Americas, a discount of approximately 14%.

For chloride fines, TZMI records that reduced demand in non-Chinese markets 'resulted in surplus volumes being redirected to China at lower prices (to match domestic China prices)', driving the quarterly weighted average down from US\$ [REDACTED] per tonne FOB in Q1 2025 to US\$ [REDACTED] per tonne FOB in Q4 2025, against merchant trades into Japan at US\$ [REDACTED] to US\$ [REDACTED] per tonne FOB. For chloride ilmenite, TZMI records that pricing of imports to China for beneficiation use 'was also adversely affected by weak ilmenite pricing in the domestic market'; across 2025 the China weighted average of approximately US\$ [REDACTED] per tonne FOB sat approximately 19% below Europe and the CIS (about US\$ [REDACTED]) and approximately 5% below India (about US\$ [REDACTED]), was broadly level with the Americas during 2025, and then diverged sharply after the period. TZMI's own forecast assumes Chinese producers will shift feed blends away from chloride ilmenite 'given the widening pricing disparity'.⁵⁴

Table 1: Titanium feedstock, China versus other destinations (2025) (source: TZMI, TFPF Issue 1 2026, review of Q4 2025 data)

Feedstock product (basis)	Price into / within China	Price into other markets	Approximate China discount
Sulfate ilmenite – 2025 average of quarterly weighted averages (CIF)	≈US\$ [REDACTED] (Q4 2025: US\$ [REDACTED])	≈US\$ [REDACTED] Asia-Pacific ex-China (Q4: US\$ [REDACTED]); ≈US\$ [REDACTED] North America (Q2–Q3);	≈12% (Q4 [REDACTED]: 9–19%)

⁵³ Exhibit 2.5-2: pp 17–21 (sulfate ilmenite cross-border trades, China imports, regional trends and Panzhihua domestic prices).

⁵⁴ Ibid., pp 25–28 (sulfate slag and chloride fines), 31–32 (chloride ilmenite) and 37–39 (chloride slag).

		Europe & Middle East Q4: US\$ [REDACTED]	
Chloride ilmenite – 2025 average of quarterly weighted averages (FOB)	≈US\$ [REDACTED]	≈US\$ [REDACTED] Europe & CIS; ≈US\$ [REDACTED] India (Q1/Q4)	≈5–19%
Sulfate slag – Q1–Q3 2025 quarterly weighted averages (CIF)	≈US\$ [REDACTED] ('generally ... approximately US\$ [REDACTED] CIF / US\$ [REDACTED] FOB')	≈US\$ [REDACTED] (Europe and Americas)	≈14%
Chloride slag – 2025 shipments (TZMI statement)	'typically approximately 10-15% lower than ... non-China markets'; China import volumes +146% year-on-year	Non-China markets	10–15%
Chloride fines – 2025 quarterly weighted average (FOB)	Redirected to China 'at lower prices (to match domestic China prices)': Q1 US\$ [REDACTED] → Q4 US\$ [REDACTED]	US\$ [REDACTED]–[REDACTED] (merchant trades into Japan)	—
Domestic price anchors – 2025	Panzhihua 10# ilmenite RMB [REDACTED] /t excl. VAT (–17% y/y); Liaoning 92% chloride slag Q4 2025 RMB [REDACTED] /t incl. VAT	cf. import weighted averages above	—

Although the most recent quarter falls outside the investigation period, the post-period data is indicative and strongly corroborative, as it shows the same destination-based divergence continuing and widening. On TZMI's Q1 2026 data (TFPF Issue 2 2026), the discounts on China-destination sales had grown to between approximately 11% and 35% across the feedstock complex, as set out in Table 2. It confirms that the investigation-period discounts reflect a structural condition of the Chinese market rather than short-term trading conditions.⁵⁵

Table 2: Titanium feedstock, China versus other destinations (Q1 2026) (source: TZMI, TFPF Issue 2 2026)

Feedstock product (basis)	Price into / within China	Price into other markets	Approximate China discount
Sulfate ilmenite – Q1 2026 weighted average (CIF)	US\$ [REDACTED]	US\$ [REDACTED]–[REDACTED] (Americas; Europe & Middle East; Asia-Pacific ex-China)	14–18%
Chloride ilmenite – Q1 2026 weighted average (FOB)	US\$ [REDACTED] ('down by US\$ [REDACTED] from a year ago')	US\$ [REDACTED]–[REDACTED] (Europe/CIS; Americas; India)	14–23%
Sulfate slag – 2026 new contracts (FOB)	≈US\$ [REDACTED]	≈US\$ [REDACTED] (Europe)	≈24%
Chloride slag (RTCS-C) – 2026 sales (FOB)	US\$ [REDACTED]–[REDACTED]	US\$ [REDACTED]–[REDACTED]	12–14%

⁵⁵ Exhibit 3.7-1; pp 17–44.

Synthetic rutile – 2026 (CIF-equivalent)	≈US\$ [REDACTED] (domestic China)	≈US\$ [REDACTED] (global weighted average forecast, FOB)	≈35%
Natural rutile – current (CIF-equivalent)	≈US\$ [REDACTED] (domestic China, RMB [REDACTED] incl. VAT)	≈US\$ [REDACTED] (new bulk contracts, FOB)	≈11%

A further feature of the China-bound trade is relevant to whether an ‘import price into China’ is an arm’s-length price at all. A growing share of the African material that now dominates Chinese ilmenite imports is produced by Chinese-owned or Chinese-financed operations. In Mozambique, which alone supplied 34% of China’s sulfate ilmenite imports in the most recent quarter⁵⁶, heavy-mineral-sands mining at Angoche is conducted by Haiyu (Mozambique) Mining Co., a subsidiary of China’s Hainan Haiyu Mining. A second Chinese operator, Africa Great Wall Mining Development Company, mines heavy mineral sands in the same region, and its operations have been the subject of documented complaints by Mozambique’s National Human Rights Commission and civil-society investigators.⁵⁷

This is the offshore resource acquisition directed by the State Council’s Guiding Opinions on Advancing International Cooperation in Production Capacity and Equipment Manufacturing (2015), discussed at section 2.1, under which Chinese enterprises are called on to ‘build production bases in key countries.’ Feedstock produced within these arrangements are shipped to China at prices formed inside the same policy-directed supply chain rather than negotiated between independent parties, and it is these shipments that populate the bottom of the observed price range (African cargoes to China at US\$ [REDACTED] to US\$ [REDACTED] per tonne FOB, and Nigerian material at US\$ [REDACTED] per tonne CIF)⁵⁸.

The underlying costs of these operations are also not considered a competitive-market cost base. The operations concerned have been documented, including by Amnesty International in its 2018 report on the destruction of the village of Nagonha adjacent to the Angoche mine, to operate to environmental and community standards well below those with which producers in Australia and other competitive markets must comply.⁵⁹ Prices built on the avoidance of those costs cannot supply the competitive-market standard that regulation 43(2)(b)(ii) requires of a benchmark.

The displacement of arm’s-length suppliers confirms the intent behind this trade. On TZMI’s data, Australia supplied 12% of China’s sulfate ilmenite imports in Q4 2025 and only 2% in Q1 2026, as Mozambican, Nigerian and Senegalese tonnage took its place. Over the same

⁵⁶ Ibid., p 18 (origin of sulfate ilmenite imports, Q1 2026).

⁵⁷ Mining Weekly, ‘Chinese heavy mineral sands project in Mozambique will soon start production’ ([Chinese heavy mineral sands project in Mozambique will soon start production](#)); Centro de Integridade Pública (Mozambique), Extractivism which destroys the environment ([Extractivism which destroys the environment](#)); Club of Mozambique, ‘Commission denounces rights violations by Chinese sands mine company’ ([Violations by Chinese sands mine company](#))

⁵⁸ [Exhibit 3.7-1](#): p.17; [Exhibit 2.5-2](#): p.18.

⁵⁹ Amnesty International, ‘Our lives mean nothing’: the human cost of Chinese mining in Nagonha, Mozambique ([The Cost of Chinese Mining in Nagonha](#)), concerning Haiyu Mozambique Mining Co. Lda, a subsidiary of Hainan Haiyu Mining Co. Ltd.

period Australian mineral-sands production was being curtailed, with Iluka Resources suspending its SR2 synthetic rutile kiln from December 2025.⁶⁰

Australian producers, whose costs internalise Australian environmental, heritage and labour standards, cannot meet prices formed within Chinese-controlled African supply chains. The consequences also reach beyond titanium feedstocks, as heavy-mineral-sands concentrates carry monazite, the principal feedstock for Australia's emerging rare-earths refining capability, so the displacement of Australian mineral sands erodes the economics of Australian rare-earths production as well.

Tronox raises these matters not as separate injury claims but because of what they reveal about the price series LB Group and others may request the Commission to adopt. The import prices into China are increasingly prices formed within a state-directed procurement system operating on both sides of the transaction, and is far removed from the competitive-market standard the benchmark must meet.

On this evidence, the 32% uplift adopted in the application, being the average differential disclosed by LB Group between imported and domestically procured titanium ore, is necessarily a conservative floor, because the imported-ore prices on one side of that comparison were themselves suppressed by the Chinese market conditions described above. The true differential between LB Group's recorded feedstock cost and a competitive-market feedstock cost is wider than 32%.

For the same reason, Chinese import prices cannot be adopted as the definitive benchmark for any input, as to do so would embed within the constructed normal value the very distortion that construction is designed to remove, contrary to regulation 43(2)(b)(ii) and to the purpose of subsection 269TAC(9).

3.8 Third-country prices 'adjusted to Chinese conditions'

The second method is the price of the input in a representative competitive market, adjusted as necessary to Chinese conditions. It also must be rejected for two related reasons. The first is the adjustment itself. Any adjustment of a third-country price 'to Chinese conditions' must draw on Chinese market data, such as domestic price relativities between grades, inland freight and port differentials, VAT treatment, and the level of the Chinese market generally. Each of those data points is generated by the distorted market. An undistorted starting price adjusted by reference to distorted Chinese parameters produces a distorted benchmark. This is not a theoretical concern. As Tables 1 and 2 demonstrate, the observable effect of 'Chinese conditions' on a price was a discount of approximately 10% to 19% during the investigation period, widening to as much as 35% immediately after it. That discount is the distortion itself.

The second reason is evidentiary. There is no third country that offers observable, published domestic market prices across the range of titanium feedstock categories actually consumed by the Chinese producers. Titanium feedstocks are not exchange-traded, and instead are sold under confidential term contracts, and the competitive-market producers export the great bulk of their production, so that in most producing countries there is no meaningful domestic

⁶⁰ Exhibit 2.5-2: p.18 (Q4 2025 origin shares); Exhibit 3.7-1: p.18 (Q1 2026 origin shares); Exhibit 2.5-2: p.44 (suspension of the SR2 kiln).

merchant market at all. Therefore, the international seaborne trade is the competitive market. A domestic price series constructed for a single third country would be thin and incapable of verification.

Since energy, electricity and pipeline gas are not imported into China in any meaningful sense, relevant import prices do not exist. Whilst third-country domestic energy prices are available, those prices are properly characterised, and best applied, as an independent published benchmark under the third approach, which is precisely how the European Commission proceeded in its parallel investigation concerning the same goods from the same country.

3.9 The appropriate benchmarks: independent published data from reputable third-party sources

It is submitted that the Commission should therefore proceed directly to the third approach and determine the competitive market cost of each distorted input from independent published benchmark data. That course is consistent with the Commission's own practice in particular-market-situation cases of constructing normal values using external benchmark data in substitution for recorded costs, and it is squarely supported by the approach of the European Commission in respect of the same goods exported from the same country over a directly comparable period.

In Commission Implementing Regulation (EU) 2025/4, the European Commission constructed normal value for Chinese titanium dioxide producers using Brazil as the representative country, with Tronox's Brazilian operations serving as the representative producer (recital 170). It adopted TZMI price data as the basis for the undistorted prices of titanium ores and concentrates, describing TZMI as 'a widely recognized international titanium industry platform' whose data is sufficiently precise and disaggregated for benchmarking purposes (recital 165), and it benchmarked sulphuric acid on undistorted import prices into Brazil (recital 169, and recitals 220 to 223 of the provisional Regulation (EU) 2024/1923).⁶¹ The benchmarks proposed below follow the same approach, and in some respects are more conservative.

a) Titanium-bearing ores.

The appropriate benchmark for titanium-bearing ores is the TZMI titanium feedstock price series, applied at the level of each individual feedstock category. TZMI publishes, in the TFPF series, global weighted average prices per tonne on a bulk FOB basis, compiled from actual identified cross-border trades, for each category of feedstock consumed in pigment production (sulfate ilmenite, chloride ilmenite, sulfate slag, chloride slag, chloride fines, synthetic rutile, natural rutile and upgraded slag).⁶² As the series is compiled from cross-border trades between independent parties, it reflects international supply and demand

⁶¹ Commission Implementing Regulation (EU) 2025/4 of 17 December 2024 imposing a definitive anti-dumping duty on imports of titanium dioxide originating in the People's Republic of China (OJ L, 2025/4, 9 January 2025); Commission Implementing Regulation (EU) 2024/1923 of 10 July 2024 imposing a provisional anti-dumping duty (OJ L, 2024/1923, 11 July 2024).

⁶² Exhibit 3.7-1 and Exhibit 2.5-2.

rather than Chinese domestic conditions, and because it is disaggregated by category it can be matched precisely to the feedstock blend actually consumed by each Chinese producer.

The benchmark cost of titanium-bearing ores for each producer should be built up in four steps, as follows.

- identify the producer's actual feedstock consumption by category and tonnage for the investigation period, as verified from its records.
- for each category, take the TZMI weighted average price for the investigation period (the 2025 weighted averages are set out in Table 3).
- add ocean freight and delivery costs to the plant on an undistorted basis.
- multiply the benchmark delivered price of each category by the verified usage rate (tonnes of feedstock per tonne of pigment) and sum across categories.

This is the same category-matched TZMI methodology accepted by the European Commission, and the usage rates are verifiable both from the producers' own records and from TZMI's PCS 2025 plant-level data.⁶³

Table 3: TZMI global weighted average titanium feedstock prices, 2025 (nominal US\$ per tonne, FOB)⁶⁴

Feedstock category	2025 weighted average (US\$/t FOB)
Sulfate ilmenite (all grades)	
– of which: direct pigment use	
– of which: beneficiation use	
Chloride ilmenite	
Sulfate slag	
Chloride slag	
Chloride fines	
Synthetic rutile	
Natural rutile (bulk)	
Upgraded slag (UGS)	

Even these figures are conservative. TZMI's global weighted averages themselves include the discounted China-bound sales described earlier. TZMI expressly records that the averages of several high-grade feedstocks 'have been negatively impacted by an increasing share of sales into China'.⁶⁵ A weighted average confined to non-Chinese destinations would be higher for every category. The applicant does not press that refinement, but its availability confirms that the TZMI global series cannot be said to overstate the competitive market cost.

b) Sulphuric acid.

TZMI also publishes benchmark input prices for sulphuric acid. The PCS 2025 study records, for every pigment plant in the global cost curve, the delivered price of sulphuric acid consumed in the sulphate process. Those data record the Chinese sulphate producers'

⁶³ Application, Exhibit B-3.53 (PCS 2025), plant-level manufacturing statements.

⁶⁴ Exhibit 3.7-1: Annual price forecast summary.

⁶⁵ Exhibit 3.7-1: p.9.

delivered acid cost at a uniform figure of approximately US\$ [REDACTED] per tonne, while sulfate-route producers in competitive markets pay in the range of approximately US\$ [REDACTED] to US\$ [REDACTED] per tonne, with a production-weighted average of approximately US\$ [REDACTED] per tonne. For the Brazilian plant that served as the European Commission's representative-country producer, the sulphuric acid cost was approximately US\$ [REDACTED] per tonne. It is submitted that the recorded Chinese sulphuric acid cost should be replaced with the TZMI competitive-market benchmark, being either the non-Chinese average (approximately US\$ [REDACTED] per tonne) or, for consistency with the European Commission's representative-country approach, the Brazilian delivered price (approximately US\$ [REDACTED] per tonne).⁶⁶

In the alternative, the Commission may adopt the undistorted import price into Brazil derived from the Global Trade Atlas, as the European Commission did (Regulation (EU) 2025/4, recital 169). The quantitative significance is material: at the verified sulfate-route usage of approximately 2.3 to 2.5 tonnes of acid per tonne of pigment, substitution of the non-Chinese average adds approximately US\$ [REDACTED] to US\$ [REDACTED] per tonne of pigment to the cost to make, and substitution of the Brazilian price approximately US\$ [REDACTED] to US\$ [REDACTED] per tonne, before any consequential adjustment to SG&A and profit. No adjustment for sulphuric acid was made in the application, so the entirety of this amount is additive to the current margin estimate.

c) Electricity and natural gas.

For energy there is no import price into China and, for the reasons outlined earlier, there are no reliable means of adjusting a third-country price 'to Chinese conditions'. The appropriate benchmark is the published domestic energy pricing of a representative competitive market, and the European Commission's selection of Brazil, made after considering other candidate countries at a comparable level of development, provides a tested template for the same goods.⁶⁷

For electricity, Tronox proposes the Brazilian industrial tariffs derived from the determinations of the national electricity regulator, ANEEL, as consolidated for 2025 in the published tariff schedule covering all 27 distribution concessions (conventional tariffs ranging from approximately R\$0.64 to R\$0.98 per kWh as at January 2025)⁶⁸, applying the tariff class appropriate to a large industrial consumer and converting at the average exchange rate for the investigation period.

For natural gas, the applicant proposes the industrial gas prices published monthly by the Brazilian Ministry of Mines and Energy in its Boletim Mensal de Acompanhamento da Indústria de Gás Natural (2025 editions).⁶⁹ Both sources are official or regulator-derived, published, monthly or annually updated, and independently verifiable. Their reasonableness is corroborated by TZMI's own plant-level data, where PCS 2025 records the Chinese producers' electricity at approximately US\$0.08 to US\$0.10 per kWh and heating fuel at

⁶⁶ Application, Exhibit B-3.53 (PCS 2025), plant-level manufacturing statements.

⁶⁷ Commission Implementing Regulation (EU) 2025/4; Commission Implementing Regulation (EU) 2024/1923.

⁶⁸ Clarke Energia, Mapa de tarifas de energia no Brasil (2025), consolidating the tariff determinations of the Agência Nacional de Energia Elétrica (ANEEL) across the 27 distribution concessions ([Discover energy prices in Brazil](#))

⁶⁹ Ministério de Minas e Energia (Brazil), Boletim Mensal de Acompanhamento da Indústria de Gás Natural, 2025 editions, ([Monthly Monitoring Bulletin of the Natural Gas Industry](#)).

approximately US\$10.7 per GJ, against approximately US\$0.157 per kWh and US\$21.9 per GJ for the Brazilian reference plant and a non-Chinese heating-fuel average of approximately US\$14.6 per GJ.⁷⁰

3.10 Effect on the constructed normal value and dumping margin

The three distorted inputs together account for approximately 71% of the cost to make. The impact on the constructed normal value is therefore direct and substantial, with every ten percentage points by which the recorded costs of these inputs collectively understate competitive market costs translating into an understatement of approximately 7% of the cost to make. The only input adjustment reflected in the current estimated margin of 48% is the 32% feedstock uplift. Application of the benchmarks identified above will produce a materially higher constructed normal value and dumping margin.

4. Conclusion and Recommendations

For the reasons set out in this submission, the evidence before the Commission establishes that a particular market situation exists in the Chinese titanium dioxide market and that domestic selling prices do not permit a proper comparison with export prices. As a consequence, the recorded costs of titanium-bearing ores, energy and sulphuric acid do not reasonably reflect competitive market costs, and the only benchmarks capable of replacing them without reintroducing the distortion are independent published benchmarks from reputable third-party sources. The applicant respectfully requests that the Commission:

- confirm, in the Statement of Essential Facts, the finding that a particular market situation exists in the Chinese titanium dioxide market and that normal value is to be constructed under paragraph 269TAC(2)(c) of the Act;
- find that the recorded costs of titanium-bearing ores, energy and sulphuric acid do not reasonably reflect competitive market costs, so that regulation 43(2)(b)(ii) is not satisfied, and reject those recorded costs;
- decline to adopt Chinese import prices, or third-country prices adjusted to Chinese conditions, as benchmarks, on the ground that both are tainted by the domestic market conditions constituting the particular market situation;
- determine the competitive market cost of titanium-bearing ores using the TZMI feedstock price series applied at the level of each feedstock category, matched to each producer's verified feedstock blend, in accordance with the four-step methodology set out above;
- determine the competitive market cost of sulphuric acid using the TZMI benchmark sulphuric acid prices for competitive-market producers (or, in the alternative, undistorted import prices into Brazil), in place of the recorded Chinese cost;
- determine the competitive market cost of electricity and natural gas using the published Brazilian benchmarks, being the ANEEL-derived 2025 industrial electricity tariffs and the industrial gas prices published by the Ministry of Mines and Energy, consistently with the representative-country approach adopted by the European Commission for the same goods; and

⁷⁰ Application, Exhibit B-3.53 (PCS 2025), plant-level manufacturing statements.

- make all consequential adjustments under subsection 269TAC(9) necessary to ensure that the constructed normal value is properly comparable with the export price.

This submission is made on the basis of the information currently available. Tronox would welcome the opportunity to provide any further information or analysis of assistance to the Commission, including the underlying TZMI data sets (which are licensed to Tronox and can be made available to the Commission on a confidential basis).