REPORT NO. 749

ITAC SELF-INITIATED INVESTIGATION INTO THE CREATION OF A REBATE PROVISION ON COPPER SULPHATE, CLASSIFIABLE UNDER TARIFF SUBHEADING 2833.25, USED IN THE MANUFACTURE OF ANIMAL FEED

The International Trade Administration Commission of South Africa ("ITAC") herewith presents its Report No. 749, ITAC self-initiated investigation into the creation of a rebate provision on copper sulphate, classifiable under tariff subheading 2833.25, used in the manufacture of animal feed.

.....

AYABONGA CAWE

CHIEF COMMISSIONER

PRETORIA

...01../...08../ 2025

REPUBLIC OF SOUTH AFRICA

INTERNATIONAL TRADE ADMINISTRATION COMMISSION OF SOUTH AFRICA

REPORT NO. 749

ITAC SELF-INITIATED INVESTIGATION INTO THE CREATION OF A REBATE PROVISION ON COPPER SULPHATE, CLASSIFIABLE UNDER TARIFF SUBHEADING 2833.25, USED IN THE MANUFACTURE OF ANIMAL FEED

Synopsis

The International Trade Administration Commission of South Africa ("ITAC" or "the Commission") self-initiated an investigation into the possible creation of a rebate provision for copper sulphate, classifiable under tariff subheading 2833.25, used in the manufacture of animal feed.

This investigation follows the approval of ITAC's Report No. 675 by the former Minister of Trade, Industry and Competition ("the Minister"). The report recommended an increase in the customs duty on copper sulphate, classifiable under tariff subheading 2833.25, as sulphates, alums, and peroxosulphates (persulphates) of copper, from duty-free to 10% *ad valorem*. This increase was subsequently implemented by the South African Revenue Service ("SARS") on 20 September 2024.

In light of this, the Minister requested ITAC to conduct an expedited investigation into the possible creation of a rebate facility for copper sulphate used in the manufacture of animal feed, due to concerns about the unintended consequential impact the duty increase may have on the animal feed manufacturing sector, who use copper sulphate in their production processes.

During its deliberations and in arriving at its recommendation, the Commission considered the information at its disposal, including comments received during the investigation period.

The Commission found that:

- Copper sulphate is an input in animal feed, supporting growth, immunity, and productivity in livestock. It constitutes only a small proportion of the total raw materials used, contributing approximately less than 2% to the overall feed composition. Its usage is significantly lower compared to key inputs such as yellow maize and soybean oilcake.

- To safeguard feed quality and ensure alignment with international best practices, South Africa's regulatory framework, specifically the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947) ("Act 36"), requires that any manufacturer of copper sulphate intended for use in animal feed be registered with the Department of Agriculture, Land Reform and Rural Development ("DALRRD") in accordance with the provisions of Act 36.

- Kimleigh Chemicals SA ("Kimleigh") is the only known domestic manufacturer of animal feed-grade copper sulphate in South Africa. The company is registered with DALRRD under Act 36. Accordingly, Kimleigh's information was considered representative of the domestic supply side of the animal feed-grade copper sulphate industry.

- According to information available to the Commission, Kimleigh was compliant with the requirement under Act 36, and holds a valid registration with DALRRD, in terms of Act 36, to produce, sell, and market animal feed-grade copper sulphate.

- It was found that Kimleigh's annual production capacity utilisation declined significantly between 2021/22 and 2023/24, with a substantial portion of capacity remaining underutilised. Nonetheless, Kimleigh increased its total investment during this period, with infrastructure improvements indicating a commitment to meeting future market needs.

- In terms of production of the subject product, it was found that Kimleigh's production of animal feed-grade copper sulphate over the period of the investigation remained

relatively stable, with a 15% increase in 2022/23 followed by a similar decrease in 2023/24, resulting in no net growth over the three-year period under review.

- Between 2021/22 and 2023/24, Kimleigh experienced an increase in production costs, primarily driven by rising prices of input materials, particularly copper, as well as higher labour expenses and escalating utility and administrative costs.

- Although Kimleigh's ex-factory selling prices increased during the investigation period, the rate of increase was lower than that of total production costs. As a result, the company's net profits declined over the period.

- South Africa's imports of copper sulphate under tariff subheading 2833.25 showed significant fluctuations. However, the import data could not be disaggregated between technical and animal feed grades, as the tariff subheading in question encompasses both types. Consequently, specific import statistics for animal feed-grade copper sulphate could not be analysed.

- An analysis of the total import volumes of copper sulphate and Kimleigh's installed and spare production capacity revealed that the company's capacity significantly exceeds the volume of copper sulphate imported into South Africa, indicating its potential ability to meet domestic demand for animal feed-grade copper sulphate.

In light of the foregoing, the Commission decided not to create a rebate provision for copper sulphate classifiable under tariff subheading 2833.25 used in the manufacture of animal feed, owing to the fact that there is an established domestic manufacturer with sufficient installed production capacity to meet the domestic demand requirements for copper sulphate.

1. PRODUCT DESCRIPTION AND TARIFF POSITION

1.1. Copper sulphate, also known as blue stone or blue vitriol, is an inorganic compound with the chemical formula $CuSO_4 \cdot 5H_2O$. It is widely recognized for its broad range of applications across multiple industries such as agriculture, mining, chemical manufacturing, and metallurgy. However, the quality and characteristics of copper sulphate vary depending on its intended application.

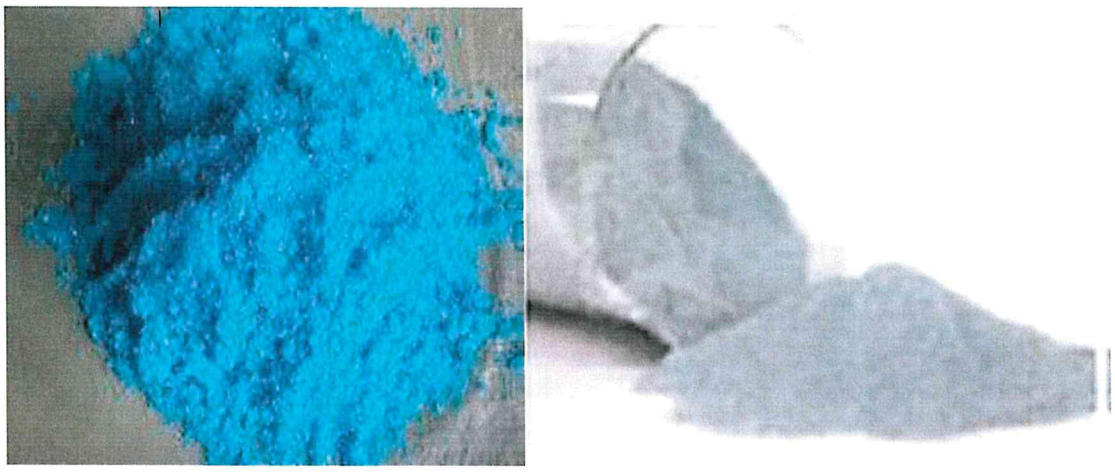
1.2. There are two main grades of copper sulphate: industrial (technical) grade and animal feed grade.

- **Industrial grade copper sulphate** is used in a variety of non-feed applications, including mining (particularly in flotation processes), chemical manufacturing, and water treatment (as an algicide and bactericide). This grade typically contains higher levels of impurities and is not suitable for animal consumption due to potential health hazards.

- **Animal feed grade copper sulphate ("the subject product")** is specifically produced for use as a nutritional supplement in animal feed. Copper is an essential trace mineral that supports several physiological functions in animals, including growth, bone development, enzyme activity, and immune response. As it is used in the feed sector, this grade must comply with the strict safety and purity requirements set out under the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947).

Figure 1: Image of copper sulphate

Industrial grade **Animal Feed Grade**



Source: Kimleigh Chemicals

1.3. The production of animal feed grade copper sulphate typically begins by dissolving industrial grade copper sulphate in purified water. This process forms a concentrated solution that enables the separation of impurities in subsequent steps. Utilizing existing

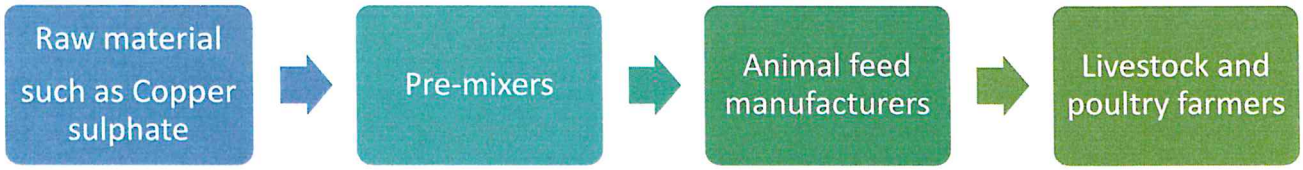
industrial-grade material allows manufacturers to reduce production costs while maintaining a foundation for achieving feed-grade purity.

ANIMAL FEED PRODUCTION VALUE CHAIN

1.4. Copper sulphate is a raw material in the production of animal feed, functioning as an essential trace mineral that significantly contributes to animal nutrition, health, and productivity. It enters the animal feed value chain at the initial stage of raw material sourcing and continues through each stage, ultimately playing a crucial role in supporting the livestock and poultry industries.

1.5. Pre-mixers typically incorporate copper sulphate, whether domestically sourced or imported, into vitamin and mineral premixes, where it is blended with other micronutrients. These premixes are then supplied to animal feed manufacturers for inclusion in the final feed formulations. Figure 2 provides a simplified illustration of the role of copper sulphate in the animal feed value chain.

Figure 2: Animal feed production process value chain



Source: AFMA

1.6. Alternatively, animal feed manufacturers may also use copper sulphate directly in the production of complete feed, particularly if they formulate feed in-house without relying solely on external premixes. Copper sulphate is added during the mixing process to ensure the final product contains sufficient copper levels necessary for maintaining animal health and productivity. However, based on information available to the Commission, copper sulphate accounts for only a small proportion of the total raw material usage in animal feed manufacturing.

TARIFF STRUCTURE

1.7. The current tariff structure, for the subject product is as shown in Table 1 below. The subject product is currently classifiable under tariff subheading 2833.25. It attracts a 10% *ad valorem* duty for countries under the General and MERCOSUR columns, free of duty from countries under the European Union/United Kingdom ("EU/UK"), European Free Trade Association ("EFTA"), Southern African Development Community ("SADC"), and the African Continental Free Trade Agreement ("AfCFTA").

1.8. It is important to note that the tariff structure does not separate between the industrial and animal feed grade copper sulphate. Therefore, tariff subheading 2833.25 includes both grades of copper sulphate.

Table 1: Tariff position for the subject product

Tariff Heading	Tariff Subheading	Description	Statistical Unit	Rate of duty					
				General	EU/UK	EFTA	SADC	MERCOSUR	AfCFTA
28.33		Sulphates; alums; peroxosulphates (persulphates):							
2833.2		Other sulphates:							
	2833.25	**Of copper**	**kg**	**10%**	**free**	**free**	**free**	**10%**	**free**

Source: SARS

2. DISCUSSION

2.1. The global copper sulphate market is expected to experience steady growth, with volumes expected to increase from 374 430 metric tons in 2024 to 518 050 metric tons by 2034, representing a compound annual growth rate ("CAGR") of 3.3%. This increase is primarily driven by its widespread application in agriculture, mining and water treatment.

2.2. The production of copper sulphate is basically linked to copper mining, as it is produced either by reacting copper metal with sulfuric acid or through the leaching of low-grade ores. Chile remains the world's leading copper producer, with an estimated output of 5.3 million metric tons in 2024.

2.3. Globally, copper mine production reached 22 million metric tons in 2023 and is forecasted to increase by 2.2% in 2025, while refined copper output is projected to hit 27.27 million metric tons, supporting the upstream supply for copper sulphate production.

2.4. In terms of consumption, the Asia-Pacific region dominates the market, accounting for 61% of global demand, largely due to robust agricultural and livestock activities in countries like China, India, and Japan.

2.5. Within the Southern African Customs Union ("SACU"), the manufacturing base for animal feed-grade copper sulphate is limited. According to information available to the Commission, Kimleigh Chemicals is the only known domestic manufacturer of animal feed-grade copper sulphate within SACU.

2.6. From a policy perspective, the Department of Trade, Industry and Competition ("the dtic") has developed a long-term strategy for the chemicals sector, known as the 2035 Vision. This strategy aims to foster a competitive, inclusive, and growing chemical manufacturing industry, targeting a 6% annual growth rate, a 50% increase in employment, enhanced local content, and international competitiveness. ITAC's tariff amendment instruments are identified as key enablers in creating a more supportive and transformed chemicals sector.

2.7. An additional policy consideration of importance is the Agriculture and Agro-processing Masterplan "social compact" ("AAMP"), which resides within the ambit DALRRD. The specific objectives of AAMP that are pertinent to this investigation, given the use of the subject product in the manufacture of animal feed, are outlined as follows:

- Increase food security in South Africa.
- Promote and accelerate sustainable transformation in the agriculture and agro processing sectors.
- Improve access to local and export markets, which will require constant upgrades in the quality of supply to bolster South Africa's competitiveness.
- Create an effective farmer support system and agro-processing incentives.

3. ECONOMIC, TRADE AND COST ANALYSIS

3.1. The economic analysis in this section is based on information submitted by Kimleigh for the three-year period covering its financial years from July 2021 to June 2024. According to information available to the Commission, Kimleigh is currently the only known producer of animal feed-grade copper sulphate within SACU.

3.2. As such, the analysis herein focuses exclusively on Kimleigh to assess the domestic industry's production capacity and its ability to meet demand for the subject product.

3.3. Kimleigh's production of technical-grade copper sulphate declined significantly over the period under review, decreasing by 40%, primarily due to weaker market demand.

3.4. In contrast, the production of animal feed-grade copper sulphate remained relatively stable, with a 15% increase in 2022/23 followed by a similar decrease in 2023/24, resulting in no net growth over the three-year period under review.

3.5. Kimleigh's production volumes for animal feed-grade copper sulphate closely mirrored sales, indicating that the company maintains a demand-driven production model and avoids the accumulation of excess inventory.

3.6. While Kimleigh's production capacity remained unchanged, capacity utilisation declined significantly, falling from 44% to 26% over the review period, an overall decrease of 18 percentage points. This indicates a marked underutilisation of production facilities.

3.7. Nevertheless, Kimleigh recorded a 4% increase in total investment over the period, including the installation of additional crystallizers, thereby positioning itself to meet potential future increases in domestic demand.

3.8. Between the 2021/22 and 2023/24 financial years, Kimleigh's average production costs for copper sulphate increased consistently, primarily driven by increasing direct and indirect variable costs.

3.9. Although Kimleigh implemented annual increases in its ex-factory selling prices, averaging 7%, these adjustments were insufficient to offset the approximately 10%

annual growth in total production costs. Consequently, net profitability declined significantly over the period.

3.10. In terms of import trends, copper sulphate imports into South Africa exhibited notable volatility over the period of the investigation, marked by an initial period of steady growth, followed by a sharp surge, and then a significant decline.

3.11. However, it is important to note that the subject product falls under a general tariff subheading that includes both technical-grade and animal feed-grade copper sulphate. As a result, disaggregated import statistics specific to the subject product could not be analysed.

3.12. An analysis of the total import volumes of copper sulphate into South Africa and Kimleigh's installed and spare production capacity revealed that the company's capacity significantly exceeds the volume of copper sulphate imported into South Africa, indicating its potential ability to meet domestic demand for animal feed-grade copper sulphate.

4. COMMENTS

4.1. To ensure the Commission had all relevant information at its disposal, comments from interested parties were solicited through the publication of the investigation in the Government Gazette.

4.2. A total of 12 comments were received during the comment period from various stakeholders, including government departments, industry associations, domestic animal feed manufacturers, pre-mixers, importers and/or distributors of the subject product, as well as the domestic manufacturer of animal feed-grade copper sulphate.

4.3. Stakeholders who supported the creation of the rebate expressed concerns about the domestic supplier's ability to meet both demand and regulatory standards, particularly the dioxin limits stipulated under Act 36.

4.4. Conversely, stakeholders opposing the rebate argued that there is a domestic manufacturer of animal feed-grade copper sulphate who is registered, fully compliant

with the requirements of Act 36, and has sufficient capacity to supply the domestic market.

5. SUMMARY OF FINDINGS

5.1. Copper sulphate is an input in animal feed, supporting growth, immunity, and productivity in livestock. It constitutes only a small proportion of the total raw materials used, contributing less than 2% to the overall feed composition. Its usage is significantly lower compared to key inputs such as yellow maize and soybean oilcake.

5.2. To safeguard feed quality and ensure alignment with international best practices, South Africa's regulatory framework, specifically Act 36, requires that any manufacturer of copper sulphate intended for use in animal feed be registered with the Department of Agriculture, Land Reform and Rural Development ("DALRRD") in accordance with the provisions of Act 36.

5.3. Although South Africa's Act 36 of 1947 sets a legal dioxin limit of 1.0 ng WHO-PCDD/F-TEQ/kg in animal feed, a key challenge is the lack of accredited local labs for dioxin testing. As a result, testing must be outsourced overseas, increasing costs and delays for importers and local producers striving to meet safety and regulatory requirements.

5.4. Kimleigh is the only known domestic manufacturer of animal feed-grade copper sulphate in South Africa. The company is registered with DALRRD under Act 36. Accordingly, Kimleigh's information was considered representative of the domestic supply side of the animal feed-grade copper sulphate industry.

5.5. According to information available to the Commission, Kimleigh is compliant with the requirements under Act 36, and holds a valid registration with DALRRD, in terms of Act 36, to produce, sell, and market animal feed-grade copper sulphate.

5.6. Production of animal feed-grade copper sulphate by Kimleigh over the period of the investigation remained relatively stable, with a 15% increase in 2022/23 followed by a similar decrease in 2023/24, resulting in no net growth over the three-year period under review.

5.7. Between 2021/22 and 2023/24, Kimleigh experienced an increase in production costs, primarily driven by rising prices of input materials, particularly copper, as well as higher labour expenses and escalating utility and administrative costs.

5.8. Although Kimleigh's ex-factory selling prices increased during the investigation period, the rate of increase was lower than that of total production costs. As a result, the company's net profits declined over the period.

5.9. In terms of imports trends, copper sulphate imports into South Africa exhibited notable volatility over the period of the investigation, marked by an overall decline.

5.10. An analysis of total import volumes of copper sulphate into South Africa and Kimleigh's installed and spare production capacity revealed that the Kimleigh's capacity significantly exceeds the volume of copper sulphate imported into South Africa, indicating its potential ability to meet domestic demand for animal feed-grade copper sulphate.

6. RECOMMENDATION

6.1. In light of the foregoing, the Commission decided not to recommend the creation of a rebate provision for copper sulphate, classifiable under tariff subheading 2833.25, used in the manufacture of animal feed, owing to the fact that there is an established domestic manufacturer with sufficient installed production capacity to meet the domestic demand requirements for copper sulphate.