

**COMPETITION TRIBUNAL
REPUBLIC OF SOUTH AFRICA**

Case No: 100/LM/Dec04

In the large merger between:

Chemical Services Limited

Acquiring Firm

and

Chemiphos S.A (Pty) Ltd

Target Firm

REASONS FOR DECISION

CONDITIONAL APPROVAL

1. The Competition Tribunal issued a Merger Clearance Certificate on 26 April 2005 approving with conditions the proposed large merger between Chemical Services Limited (“**Chemserve**”) and Chemiphos S.A (Pty) Ltd (“**Chemiphos**”).
2. The reasons for our conditional approval follow and the condition is appended.

The Transaction

3. In terms of this transaction, Chemserve acquired 100% of the issued share capital in Chemiphos from a number of individuals and a trust.¹

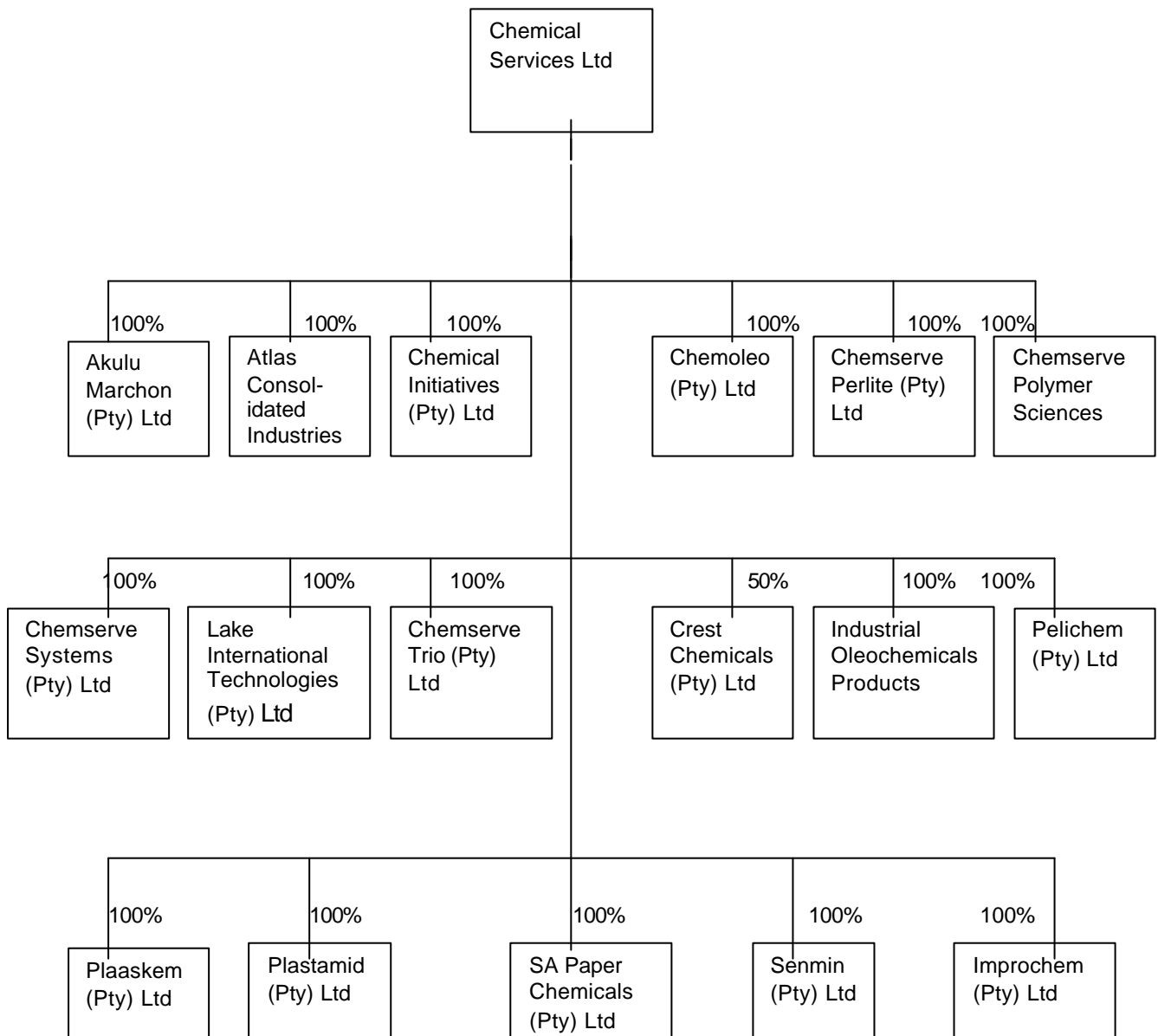
The Merging Parties

4. The primary acquiring firm is Chemserve, a wholly owned subsidiary of AECI Limited (“AECI”), a listed chemicals company. None of AECI’s shareholders controls (directly or indirectly) AECI. AECI owns a number of subsidiaries.² Below is a diagram setting out the Chemserve subsidiaries.

¹ Parkway Trust (60%), Ian Frans Marinus Van Schalkwyk (23.53%), Paul

Guisepe Diana-Oliaro (7.06%) and Dean Keith Murray (9.41%). See pages 24-25 of the record.

² Its wholly owned subsidiaries are: African Explosives Ltd (“AEL”); DetNet Solutions (Pty) Ltd (“DetNet”); SANS Fibres (Pty) Ltd (“SANS Fibres”); Chemserve; Dulux (Pty) Ltd (“Dulux”); Heartland Properties (Pty) Ltd (“Heartland”); and AECI Coatings (Pty) Ltd (“AECI Coatings”) (80%).



5. The primary target firm is Chemiphos, a private company owned and controlled by four shareholders consisting of individuals and a trust, who all manage the business of Chemiphos and are also responsible for chemical sales, product management and supplier contracts.³ Chemiphos has no subsidiaries.

Rationale for the transaction

6. According to the parties, two of the four shareholders owning 80% of the shares in Chemiphos wish to exit the business and cash in their investment. Chemserve considers this an opportunity to expand its product applications and offerings, particularly through the acquisition of a polyphosphoric and phosphoric acid manufacturing facility. Chemserve anticipates that the acquisition would enhance shareholder value as it is expected that there would be a growing demand in the market for polyphosphoric and phosphoric acid.⁴

³ See footnote 1 *supra*.

⁴ See page 106, para. 3 of the record.

The hearing of the present merger

7. The hearing was held on 25 April 2005. The Tribunal called Mr Jack Chiang (“**Mr Chiang**”) of Soyo Chemicals as a witness to the hearing. The merging parties called three representatives of the merging parties.

The parties’ activities

8. AECL’s main interests lie in the chemical industry through its various subsidiaries. It provides mining solutions, speciality chemicals, speciality fibres and decorative coatings to both the global and regional markets. It also has interests in surplus land, managed by Heartland, which they offer for commercial, residential, industrial development and leasing. The only relevant subsidiary for the Commission’s investigation is SANS Fibres (Pty) Ltd (“SANS Fibres”). SANS Fibres produces nylon and polyester yarn,⁵ and supplies filament yarn to local and export markets. It also produces high-grade polyester polymers for its own yarn processes and for diverse packaging applications.
9. Chemserve is involved in the manufacturing, marketing, distribution and sale of chemicals to customers in a number of South African industries. It conducts its business through approximately 17 subsidiaries listed above and through joint ventures (“JV’s”). Chemserve’s website describes it as the largest specialty chemicals operation in Southern Africa.⁶ The Chemserve group supplies, markets and distributes a diverse range of speciality chemicals,⁷ raw materials and related services to a broad spectrum of industries.
10. During its investigation, the Commission focussed on the following Chemserve subsidiaries: (1) Crest Chemicals; (2) Chemserve Systems; (3) Improchem; and (4) Plaaschem. This is in addition to SANS Fibres, a wholly owned subsidiary of AECL. We agree with the Commission that these are the subsidiaries relevant for the purposes of a competition assessment. The activities of these subsidiaries briefly are:
 - 10.1. Crest Chemicals is a 50% owned distributor, which includes First Chemicals. It is a distributor and supply chain management partner for global and local chemical raw material manufacturers. It also supplies industrial and fine chemicals and raw materials.
 - 10.2. Chemserve Systems, a 100% subsidiary of Chemserve, is active in the markets for industrial cleaning and maintenance as well as in the market for the provision of metal surface treatment.
 - 10.3. Improchem, also a Chemserve wholly owned subsidiary, used to be the former Ondeo Nalco South Africa. It focuses on water treatment solutions, and competes with Banchem in the downstream market. It also competes with Chemitor and Henkel.
 - 10.4. Plaaschem supplies a complete range of complementary products to the farming community, foundry, water treatment and other related industries.

⁵ According to the Commission, nylon and polyester yarn are used in various apparel, household and industrial products.

⁶ See Chemserve’s website.

⁷ The parties defined the speciality chemicals as invisible products or additives used to enhance the process efficiencies of almost all manufacturing industries. The Commission contended that very few products or processes could function effectively without them.

11. Chemiphos is primarily involved in the business of manufacturing phosphoric and polyphosphoric acid. It is also active in the importing, marketing and distribution of speciality chemicals within South Africa on behalf of local and international manufacturers. A detailed analysis of each of the relevant activities of Chemserve and Chemiphos is provided below.

Relevant market

12. As can be seen from above, Chemserve and Chemiphos are both active in the market for the manufacturing and distribution of chemical products in South Africa. In addition, Chemiphos currently supplies a number of Chemserve subsidiaries with various chemical products. Chemiphos further supplies SANS Fibres, a subsidiary of AECI Limited, with some of its chemical requirements. Therefore, the proposed merger entails both a vertical and horizontal dimension.

13. We now turn to consider the horizontal product overlap in the markets for the manufacture and distribution of chemical products.

The chemical manufacturing market

14. As mentioned earlier, the horizontal effects arise from product overlaps between the merged entity as they are both active in the manufacturing and distribution markets of chemical products. From a broad market perspective, a product overlap exists.

15. On the upstream manufacturing side, both Chemserve and Chemiphos manufacture chemicals. However, the only chemicals manufactured by Chemiphos are phosphoric and polyphosphoric acid. No subsidiary of Chemserve or AECI manufactures phosphoric and polyphosphoric acid. According to the Commission, there would be no product overlap on a narrow market definition based on the application of each chemical. There would be a product overlap if a broader market definition is used, but the market shares of the merged entity would be negligible irrespective of whether a national or international market is adopted. The Commission's investigation revealed that the merged entity's post-merger market shares would not be in excess of 2% in the broad national market for chemical manufacturing. Given the low market share of the merged entity we are persuaded that the transaction would not lead to a substantial prevention or lessening of competition in the upstream market.

Chemical distribution market

16. We found that an overlap exists in the downstream distribution side of the market as both Chemserve and Chemiphos are active in the distribution of chemical products on behalf of national and international chemical manufacturers. The Commission found that most manufacturers distribute or supply their own products. The Commission also found that third party distributors account for only 15% of the chemicals distributed in South Africa.⁸
17. The Commission proffered three possible chemical distribution market definitions. Firstly, on the broadest possible definition, the market may be the one for the provision of distribution services within South Africa. Secondly, the market can be narrowed to include the market for distribution of chemicals only within South Africa. Thirdly, a further

⁸ See the transcript of 25 April 2005, page 5.

narrowing of the market could result in a market for the distribution of speciality chemicals or commodity chemicals or for each specific chemical.

18. Both the Commission and the merging parties contended that there is probably a high level of substitutability in the market for the distribution of chemical products and that the delineation should not necessarily be based on the application of that chemical, but rather on the characteristics of that chemical.
19. The Commission argued that *“if the chemical is suitable to be transported or distributed with any other chemical, it should therefore form part of that distribution market”*. Hence the delineation should be on the characteristics of that product that impacts on its distribution rather than on its application.⁹ According to the parties, chemical manufacturers do not require unique distribution services to distribute chemical products. Further to this, the parties were of the view that the relevant downstream market could under certain conditions be defined as broadly as the market for the provision of distribution services within South Africa.¹⁰ The Commission’s market enquiry revealed that the distribution requirements of chemicals differ from one chemical to another,¹¹ and that for the distribution of speciality chemicals the distribution mechanism remains the same. As a result, the Commission contended that the distribution of each and every chemical constitutes a separate market on its own. The parties submitted that this is not an appropriate delineation of the market, but provided the Commission with market share figures with respect to the distribution of specific chemical product categories.

Evaluating the merger

Market shares for distribution of chemical products

20. The parties’ overlapping product categories are found in the supply of industrial chemicals, food and nutraceutical chemicals, plastics, performance chemicals and pigments. Below is a table which reflects the market shares of the parties together with those of their competitors.

Industrial chemicals

Product	Company	Market share (Percent)
Dyhard 100 S (Degussa)/ Dicyandiamide	Chemiphos	5
	First Chemicals	16
	BASF South Africa	25
	Air products	40
	Other	14
	Total	100

⁹ *Ibid*, page 6.

¹⁰ See the record, pages 109-110.

¹¹ According to the Commission, distribution can take one or more of the following forms: (1) those chemicals that are imported and sent directly to customers on an indent basis; (2) those that are purchased in bulk and transported to customers in bulk tankers; (3) those that are packaged in various warehouses where they are stored and distributed to consumers on demand; and (4) certain chemicals are purchased in bulk form, transported to a particular company’s sites and packed into a range of smaller packages to cater for customers’ needs.

Hydroquinone (Clariant)/ 1.4 Benzenediol	Chemiphos	10
	First Chemicals	1
	CJ Petrow	30
	Protea Chemicals	40
	Other	29
	Total	100

Food and nutraceutical

Potassium Sorbate Nutrinova	Chemiphos	7
	Crest Chemicals	11
	CJ Petrow	50
	Protea Chemicals	25
	Savannah Fine Chemicals	7
	Total	100

Plastics

Terluran GP (BASF) Acrylonitrile-butadiene-styrene polymer, (ABS) injection moulding grade	Chemiphos	3
	Plastamid	4
	Protea Chemicals	17
	Affirm Marketing	44
	Bayer	2
	Rawmac	17
	Plastomark/Dow	10
	CHC Polymers	2
	Other	1
	Total	100

Ultraform (BASF) Polyoxymethylene (POM), injection moulding grade	Chemiphos	<1
	Plastamid	1
	Affirm Marketing	10
	Plastomark	9
	Rawmac	25
	Protea Polymers	8
	Advanced Polymers	25
	Other	21
	Total	100

Ultramid (BASF) Polyamide 66 (PA66), injection moulding grade, containing impact modifier	Chemiphos	2
	Plastamid	3
	Chemimpo	3
	Rawmac	15
	CHC Polymers	5
	Cast and Walker	15
	Protea Polymers	20
	Affirm Marketing	2
	Bayer	8
	BASF	5
	Other	2
	Total	100

E-Ilan (BASF)	Chemiphos	<1
	Industrial Urethanes	<1
	Huntsman Polyurethanes	40

	Protea Chemicals	20
	Bayer	30
	CHC Polymerworld	5
	Other	>3
	Total	100

Performance chemicals

Protectol[®] (BASF) 2-Bromo-2-nitropropane-1, 3-diol & 2,4 Dichlorobenzyl alcohol	Chemiphos	5
	Akulu Marchon	20
	CJ Petrow	30
	Chinese Manufacturers	45
	Total	100

Trilon (BASF) Tetra sodium and Disodium salt of ethylenediaminetetraacetic acid	Chemiphos	2
	Crest Chemicals	14
	Chemimpo	15
	Protea Chemicals	10
	CJ Petrow	10
	Dow	15
	Kirsch Pharma SA	10
	Chinese Manufacturers	5
	Others	19
	Total	100

Pigments

Heliogen Blue Blue 7080 (BASF) Used in the coating industry	Chemiphos	3
	First Chemicals	1
	Clariant	16
	CIBA Specialities	30
	BASF	30
	Indian and Chinese imports	20
	Total	100

Heliogen Blue D 7086 (BASF) Used for inks and special applications	Chemiphos	20
	First Chemicals	5
	Clariant	5
	CIBA	40
	BASF	30
	Total	100

Heliogen Blue K6902 (BASF)	Chemiphos	3
	First Chemicals	10
	CIBA	30
	JLM – Avecia	12
	BASF	40
	Clariant	5
	Total	100
Heliogen Green L 8605 (BASF) Coating industry	Chemiphos	3
	First Chemicals	5
	BASF	25
	JLM Industries	6
	CIBA	60

	Rolfes Colour Pigments	1
	Total	100

Titanium Oxide

Tronox CR 828 (BASF) Rutile chloride process T102 – Used in coating industry – T102 content = 95%	Chemiphos	3
	First Chemicals	5
	Lake International	<1
	Servochem (Huntsman Tioxide)	70 – 75
	Chempro	10
	Rolfes Colour Pigments	2
	Solvadis SA (Pty) Ltd (Sachtleben Chemie)	<1
	Other	<1
Tronox CR 834 (BASF) Rutile chloride process T102 – Plastic application T102 content = 97%	Chemiphos	15
	First Chemicals	5
	Servochem (Huntsman Tioxide)	70 - 75
	Chempro	5

21. Within the five product categories there exist 15 products, viz., Dyhard 100 S (Degussa); and Hydroquinone (Clariant) (within the Industrial chemicals); potassium sorbate (nutrinova) under food and nutraceutical; Terluran GP (BASF), Ultraform (BASF), Ultramid (BASF), and E-Ilan (BASF) all under plastics; Protectol (BASF) and Trilon (BASF) in the performance chemicals; Heliogen Blue Blue 7080 (BASF), Heliogen Blue D 7088 (BASF), Heliogen Blue K6902 (BASF), and Heliogen Green L8605 (BASF) all under pigments; and Tronox CR 828 (BASF), and Tronox CR 834 (BASF) in titanium dioxide.

22. The market share figures provided by the parties on the distribution of each and every separate chemical revealed that the merging parties would have a combined market share varying between 1% and 25%. Out of the 15 product markets, the merging parties will have a post-merger market share of 15% or more in six of the product markets.¹² In four of the six product categories, the merging parties will still be competing with large competitors such as BASF South Africa, Air Products, CJ Petrow, Protea Chemicals, CIBA and Servochem. Again, in four of these instances the merged entity would be the third largest competitor competing with well-established distributors. In the trilon market, the merged entity would have a post-merger market share of about 16%. However, it appears that the merged entity would still face fierce competition from other market participants which have either a similar or slightly lower market share. In the tronox market, the merging parties would have a 20% market share, competing with Savochem which enjoys a 70% to 75% market share. In light of the foregoing, we agree that competition even in the narrower distribution market for specific chemicals is not substantially lessened or prevented by the merger.

¹² This is with respect to the following product category: dyhard 100 S (degussa); protectol (BASF); trilon (BASF); heliogen blue D 7086 (BASF); and tronox CR 834 (BASF). See the Commission's report (pages 23-26) and the record (pages 114-117).

23. We will now examine certain vertical issues arising from the merger.

Vertical analysis

Upstream market of manufacture and supply of polyphosphoric acid and phosphoric acid and other chemicals.

24. As noted above, the proposed merger raises vertical concerns at two levels. Firstly, by virtue of Chemiphos being a manufacturer/distributor of polyphosphoric acid and phosphoric acid which supplies these products to AECI as well as to the subsidiaries of Chemserve. Secondly, Chemiphos as an importer (agent)/distributor of various other chemical products supplied to AECI and Chemserve subsidiaries. There is cause for concern in certain of the affected markets and it is these which the attached conditions are intended to ameliorate.

25. We accept for purposes of the vertical assessment that the upstream market is the market for the manufacturing of polyphosphoric acid and phosphoric acid. As already noted, the Commission focussed on those Chemserve subsidiaries who utilise phosphoric and polyphosphoric acid as well as other chemical products supplied by Chemiphos and who are, therefore, vertically related to the monopoly supplier, Chemiphos. These are: Crest Chemicals; Chemserve Systems; Improchem and Plaaschem with SANS Fibres the only AECI subsidiary relevant for analysis. The nature of their businesses has already been described above.

26. In its investigation, the Commission identified ten (10) chemical products which Chemiphos supplies to the various subsidiaries of AECI and Chemserve. The most significant are clearly polyphosphoric and phosphoric acid which are produced by Chemiphos. The remaining eight products that are supplied by Chemiphos to, inter alia, subsidiaries of Chemserve and AECI are Melmet F10,¹³ methylene chloride,¹⁴ sodium nitrite,¹⁵ acesulfame K,¹⁶ taurine,¹⁷ luran,¹⁸ styrolux,¹⁹ and golpanol boz.²⁰

¹³ Melmet F10 is a high range water reducer used in construction and industrial products based on Portland and other types of hydraulic cement. It is used as an additive in all types of grouts, mortars, coatings and is a component of concrete admixtures and emulsions. Melmet F10 is a spray dried powder with free flowing characteristics ideal for dry blending and water dissolution.

¹⁴ The parties describe methylene chloride (alternatively termed dichloromethane) as a colourless liquid with a mild, sweet odour. It is used as an industrial solvent and a paint stripper. It may also be found in some aerosol and pesticide products and is used in the manufacture of photographic film.

¹⁵ This product is used in the manufacture of nitro-compounds and azo and fabric dyes and bleaching agents. It is also used in the pore-treatment of cement and metals and as an antifreeze, as well as in the pharmaceutical industry.

¹⁶ According to the parties, acesulfame K is a calorie-free sweetener used in beverages, food, oral hygiene and pharmaceutical products. Food containing this product includes for example tabletop sweeteners, desserts, gum, breath-mints, puddings, baked food, soft drinks, candies and canned foods.

¹⁷ Taurine is a product incorporated into numerous food and diet supplements and is used mainly to control anxiety, hyperactivity, poor brain function, hypoglycaemia, hypertension and seizures. It is an amino acid found throughout the body chiefly in nerve tissue and muscle.

¹⁸ This is a trade name for styrene / acrylonitrile copolymers that are active in the area of household goods and tableware, cosmetic packaging, sanitary and toiletry applications as well as for writing materials and office supplies.

¹⁹ Styrolux is the trade name for the BASF range of thermoplastic styrene butadiene copolymers. It is used in the areas of food packaging such as thermoformed cups and lids and also in applications such as shrink film and transparent coat hangers.

27. Phosphoric acid is a thick, colourless and odourless liquid or a thick, colourless crystalline solid. Phosphoric acid is incompatible with strong caustics and most metals. It is primarily used for the manufacture of phosphate salts, which are in turn used for detergents and fertilisers. We were told that there are two methods of production that can be used in its manufacture, i.e., the thermal and the wet processes. The former is used to produce acid from elementary phosphorus. The acid produced is extremely pure and of a high quality and it is used in food as well as other sophisticated manufacturing processes. It appears that the latter process is used to manufacture the majority of phosphoric acid. Polyphosphoric acid ("PPA") is a mixture of polymeric acids that have been polymerised at different extents. It is a colourless viscous liquid with high affinity for water and slightly corrosive. It turns into phosphoric acid when dissolved into water. PPA is formed by condensing orthophosphoric acid to eliminate water between two or more molecules. It is formed when two molecules of phosphoric acid are heated to remove one molecule of water. The manufacturing process follows the well-known thermal route, whereby molten yellow phosphorus is atomised and burnt with compressed air in a vertical combustion tower. PPA is used in making organic catalysts, synthetic resins, acidic water dehydration agents, high grade feed supplements, fire retardants and anti static electricity agents.²¹
28. According to the Commission, polyphosphoric acid is basically a concentrated form of phosphoric acid whilst phosphoric acid has a concentration of between 65% and 85%. The Commission further pointed out that there are two types of phosphoric acid, i.e., white and green phosphoric acid. It appears that there are differences between the production process of these two kinds of phosphoric acid as well as in their applications. White phosphoric acid is formed during the thermal process and is used for sophisticated technical manufacturing and it is suitable as an input product in the manufacturing of human consumption products such as in food, soft drinks, etc. Green phosphoric acid is formed through the wet acid method and is used in the manufacturing of fertiliser and animal feed. In brief, white phosphoric acid is utilised for human consumption whereas the green one is suitable for the agricultural industry. The Commission contended that whilst white phosphoric acid can be substituted for green phosphoric acid, the reverse does not apply. White phosphoric acid is purer and more expensive than the green one. In light of this, the Commission contended that each should constitute a separate product market.

Market shares

29. The Commission's investigation revealed that the parties would have a negligible market share of about 1% in the manufacturing of green phosphoric acid.²² However, the market for the manufacturing of white phosphoric acid and polyphosphoric acid is a cause for concern as Chemiphos' pre-merger market share is estimated at 85%. Post-merger, this will remain the same because Chemserve would simply replace Chemiphos in this market.

²⁰ We were told that golpanol boz is utilised as a component for brightening nickel and nickel-iron alloy electroplating baths and as a brightener for copper plating. It is used as a raw material for the electroplating industry. In nickel electrolytes, it improves deformity and throwing power. It also has the ability to improve the tolerance for metal impurities in electroplating paths. According to the parties, the types of products that can be electroplated include automotive parts, shop fittings, bathroom fittings and building products (mainly fasteners).

²¹ For a detailed nature of these two products, refer to the record, pages 131-133.

²² See the transcript, page 10.

Customer foreclosure and / or input foreclosure

30. Our concern is with the possibility of customer or input foreclosure. The former refers to a situation where a vertically integrated firm denies or limits access by upstream rivals to downstream customers. The latter – input foreclosure – arises where a vertically integrated firm denies or raises the cost of inputs to its downstream rivals.
31. The merging parties contended that the high national market shares should not necessarily give rise to prohibition of the merger. They pointed out that vertical integration may give rise to pro-competitive benefits. In support of their contention, they argued, firstly, that it would not be rational for the merged entity to refuse supplying Chemiphos' products to customers because Chemserve / AECL subsidiaries only account for about 10.6% of Chemiphos' total phosphoric and polyphosphoric acid sales. Secondly, they argued that most of the chemicals supplied by Chemiphos, other, than phosphoric and polyphosphoric acid, could be sourced from a number of alternative suppliers. Lastly, they argued that the merged entity would not be able to exercise market power because it supplies its products to powerful customers that possess very significant countervailing powers.²³

Downstream markets that use phosphoric and polyphosphoric acid as input

32. During the course of its investigations, the Commission was alerted to the prospect of anti-competitive consequences in markets downstream of the merged entity. As already elaborated these concerns were based on the merging parties presence in a number of markets that utilised phosphoric and polyphosphoric acid as inputs in their production processes. After a thorough investigation the Commission narrowed its concerns to three markets. That is, in the markets for the provision of water treatment solutions, the manufacturing of industrial chemicals and the market for metal surface treatment solutions.
33. There are clearly no effective or suitable substitutes for white phosphoric acid or polyphosphoric acid and several downstream users of these essential products feared that in the event of shortages or disruptions in supply, AECL / Chemserve subsidiaries might get preferential treatment. The effect of this could be to compromise the competitors' ability to provide a reliable service to customers.
34. As explained above, the national market share of Chemiphos in the production of white phosphoric acid and polyphosphoric acid is approximately 85%. On the one hand, certain market participants and customers of the merging parties raised concerns that both phosphoric and polyphosphoric acid are not easily available through importation due to a number of constraints. The merging parties contended, on the other hand, that imports are available in consistent and reliable supply and that they are directly substitutable with products produced locally. However this was not confirmed by the Commission's investigation. Factors such as currency fluctuations make forward budget planning very difficult. It appears that an importer of these products has to pay customs, clearing and freight charges. Furthermore, some importers seem to lack the capacity to dilute the respective products to their required concentration. We were told that it was not cost effective to import as the exchange rate and custom duties make the product more expensive and that overseas pricing structures are higher than sourcing locally.

²³ See the record, pages 129-130.

Furthermore, it seems that importers are required to import in huge volumes so as to meet local cheaper prices. We were also told that imports are impractical because of the hazardous nature of the polyphosphoric acid resulting in importers being required to increase their insurance coverage of the relevant product. Importers also seem to experience logistical problems with delays occurring between the placing of orders and receiving them. The other market participants estimate that importers have to wait for approximately 6 weeks to get the imported product. However, a local product takes between 3 to 5 days.²⁴

35. Amongst other concerns raised in the downstream manufacturing market was the fact that the customers of the players in the metal surface treatment industry are major customers, i.e. the motor vehicle manufacturers, who are required to comply with the local content requirements of the motor industry development plan and are therefore penalised for using imported materials. We were told that the motor manufacturers prefer to use local content as much as possible because they, in turn, get rebates and tax relief. The Commission contended that this leaves the Chemserve Systems' competitors at a disadvantage if they are not able to import at such higher prices or if they do not secure a reliable supply. In addition to the above, there were rumours at the time of the hearing of the present matter that Chemserve intend to acquire Orlik & Associates, which is another player in the downstream production market. The Commission contended that there were no valid reasons to disregard these concerns as being ill-founded, particularly having regard to the merged entity's high market shares of approximately 85%, the non-substitutability of white phosphoric and polyphosphoric acid and the high barriers to entry in this market as outlined below.
36. However, the merging parties argued that there is already a fairly high level of imports coming into the country – imports accounted for approximately 30% of sales in the year 2004. Indeed Chemiphos itself had, on occasion, imported acid into SA and there were other firms that continued to do so. China is the major source of imports and Israel is offering a reliable product at competitive prices. They pointed out that no import tariffs exist for phosphoric acid. According to the parties, insurance is certainly not a problem as the general insurance policy adequately covers the importation of phosphoric acid. In addition, the merging parties do not regard logistical issues as a fundamental barrier to importing the product into South Africa.²⁵ However, while the evidence suggests that the importation of phosphoric acid is possible, this is only viable for the smaller users of the product.
37. The merging parties sought to allay fears of foreclosure by pointing out that there are certain companies within the Chemserve stable who support Soyo Chemicals, the only other South African producer of phosphoric and polyphosphoric acid. Mr Trevor Street, a representative of the merging parties, testified that there would not be any changes post merger as each of Chemserve companies would make their own purchasing decisions. He reiterated that they would certainly encourage any company within Chemserve to buy from the best possible source.²⁶ We were further told that that Chemiphos has no exclusive distribution agreements with respect to the products in question.²⁷

²⁴ See the transcript, page 14.

²⁵ See the testimony of Mr Ian van Schalkwyk (Managing Director of Chemserve), page 38 of the transcript.

²⁶ See his testimony, page 52 of the transcript.

²⁷ See the transcript, page 21.

Barriers to entry

38. The Commission's view is that entry into the market for the manufacture of white phosphoric and polyphosphoric acid is unlikely. The Commission's investigation revealed that R20 million would be required in order to start a plant that produces 600 metric tons per month production capacity for phosphoric and polyphosphoric acid. According to the Commission, the latter plant would take a year to bring on stream. The merging parties estimated that it would require approximately R150 million to set up an effective manufacturing plant of white phosphoric acid and polyphosphoric acid – from which we can only infer that the plant concerned would produce approximately 4500 metric tons of phosphoric and polyphosphoric acid per month. This in itself suggests that barriers to entry in this market are high. Save for Soyo Chemicals, a 1996 entrant that enjoys a market share of between 5% to 10%, there have not been any new entrant into this market.
39. The merging parties conceded that the main barrier to entry in this market is the capital required to establish a plant capable of processing the relevant materials for production. However, the capital required would vary depending on the size of the operation concerned. The parties also contended that it would be relatively inexpensive for the three firms currently involved in the manufacturing of green phosphoric acid to convert their existing facilities for the production of white phosphoric acid. The Commission followed up with these entities to obtain their views. One of the producers did not respond to the Commission's enquiries. One of the remaining two entities indicated that it had previously tried to penetrate the market, but costs and barriers to entry prevented it doing so whilst the other reiterated that it is not contemplating entering the market at all.

Public Interest Issues

40. According to the parties, the transaction would not result in a negative effect on employment and no retrenchments were envisaged.

The proposed conditions

41. It is evident from above that there is a likelihood of a substantial lessening of competition because of the vertical links in certain of the markets implicated in this transaction. Accordingly, the Commission recommended the imposition of several conditions. These conditions were primarily aimed at, *inter alia*, ensuring continued supply to all of Chemiphos' current customers at the current prices for a period of 3 years.
42. At the hearing we asked the Commission whether it had considered compelling the merging parties to divest from some of the downstream markets as part of its conditions. We accepted the Commission's view that the conditions would suffice to ensure that the threat to competition would be eliminated. In their submission against divestiture, the merging parties contended, firstly, that there is ample evidence that imports are a feasible viable alternative into the market and that imports can readily come into this market. Mr Chiang's evidence also suggested that imports are able to satisfy the requirements of the smaller purchasers of phosphoric acid. Secondly, the merging parties have negotiated fairly extensive undertakings with the major customers, who, on the basis of those undertakings, have indicated that they do not have an objection to the transaction. Thirdly, the merging parties argued that certain of Chemserve companies that purchase inputs from Chemiphos are not direct competitors with other independent Chemiphos customers.

43. In brief, the attached conditions are designed to ensure that the merged entity continues to supply all Chemiphos' customers sourcing white phosphoric and polyphosphoric acid on a non-discriminatory basis and on the same terms and conditions, which existed prior to the merger. This would ensure that those downstream users of Chemiphos products would not be advantaged relative to their competitors.

44. It is the Tribunal's view that the attached conditions would alleviate potential competitive concerns that may arise pursuant to the merger. Our order is reproduced below.

David Lewis

7 July 2005
Date

Concurring: **Yasmin Carrim and Thandi Orleyn**

For the merging parties:	Anthony Norton (<i>Webber Wentzel Bowens</i>).
For the Commission:	Rudolph Labuschagne (<i>Legal Services</i>) assisted by Hardin Ratshisusu and Asogren Chetty (<i>Mergers & Acquisitions</i>)

**COMPETITION TRIBUNAL
REPUBLIC OF SOUTH AFRICA**

Case No: 100/LM/Dec04

In the large merger between:

Chemical Services Limited

Acquiring Firm

and

Chemiphos S.A (Pty) Ltd

Target Firm

ORDER

A. The merger is approved in terms of section 16(2)(b) of the Act subject to the condition that:

1. The merged entity shall continue to supply all Chemiphos' customers sourcing white phosphoric and polyphosphoric acid at the price and volumes at which Chemiphos was supplying its customers sourcing white phosphoric and polyphosphoric acid at the date of the merger notification, being 26 November 2004, subject to the provisions below and compliance by customers with their contractual and commercial obligations to Chemiphos.

2. In the event of production stoppages, such that Chemiphos is unable to meet the full contractual requirements of all its customers and its internal requirements, Chemiphos shall, to the extent that it reduces the supply of Polyphosphoric acid, re-schedule its supply of Polyphosphoric Acid on a non-discriminatory, pro-rata basis and to the extent that it reduces the supply of Phosphoric Acid, Chemiphos shall re-schedule its supply of Phosphoric Acid on a non-discriminatory, pro rata basis.

3. The merged entity shall be entitled to increase the prices charged to Chemiphos' customers, as at 26 November 2004, in terms of the formula attached hereto marked A (in respect of phosphoric Acid) and B (in respect of polyphosphoric Acid). For the sake of clarity it is recorded that the merged entity is not obliged to increase its prices to the full extent permitted by the formula, but that the formula will constitute the maximum amount by which the pricing may be increased.

4. The conditions set out herein shall apply for a period of 3 years from the date of the Tribunal's order in relation to this transaction.

5. If any independent purchaser of white phosphoric and polyphosphoric acid wishes to verify compliance with these conditions, the merged entity shall procure such verification from its auditors in the form of an audit certificate at such independent purchaser's cost, within 30 days of such independent purchaser's request for verification.

Monitoring of the conditions

6. The merged entity shall provide the Commission with an audit certificate issued by the merged entity's auditors, on an annual basis, verifying compliance with the above-mentioned conditions. The merged entity's financial year end is 31 December and the Audit certificate shall be provided to the Commission within 8 weeks of the merged entities financial year end. An employee of the merged entity will provide the Commission with an affidavit at six monthly intervals from the date of approval of the merger confirming compliance with these conditions.

7. The reporting obligations are applicable for the duration of the period of these conditions. For the sake of clarity it is recorded that the final audit report and affidavit will be furnished to the Commission after the period set out in paragraph 4 has elapsed.

8. Were the Chemserve Group to seek to acquire another firm in the metal surface treatment market, including Orlik and Associates, the Commission would require notification of this transaction irrespective of whether it meets the necessary thresholds.

B. Chemiphos is required to forward a copy of this Order to all its customers for phosphoric and polyphosphoric acid.

C. A Merger Clearance Certificate be issued in terms of Competition Tribunal rule 35(5)(a).

PHOSPHORIC ACID PRICE ADJUSTMENT FORMULA

9. The merging parties shall be entitled to increase the individual prices of Phosphoric Acid charged to each of Chemiphos' customers, as at 26 November 2004, according to the following principles:

9.1 Price increases will take into account fluctuations in the US\$ acquisition cost of yellow phosphorous (CFR Durban), including fluctuations in the Rand/US\$ exchange rate as well as fluctuations in the PPI²⁸ over the previous quarter.

9.2 The prices for 26 November 2004, from which price adjustments will be determined are ex Chemiphos' works and are based on:

9.2.1 a CFR Durban Price of US\$2 340.00 per metric tonne with payment terms of cash against documents;

9.2.2 all associate clearing and forwarding charges²⁹; and

9.2.3 an exchange rate of R6.30 to USD1.00

9.3 Any such price increase will occur on a quarterly basis³⁰ or when the Rand/US\$ exchange rate³¹ has increased by more than 5% from the exchange rate that prevailed at the commencement of the relevant quarter and where the increase persists for a minimum period of one month³².

9.4 For the purpose of calculating quarterly price adjustments, the percentage of the product price which is attributable to the US\$ acquisition cost of yellow phosphorous shall be deemed to be 78%. Accordingly, changes to the Rand/US\$ exchange rate and the US\$ acquisition cost of yellow phosphorous (CFR Durban) utilised to calculate the price for the previous quarter, shall be applied to 78% of the price for the previous quarter. The

²⁸ The PPI is the Production Price Index output of South African Industry Groups for South African consumption, chemicals and chemical products, as recorded in the Statistical News Release, table 3.1 group 2.11 ("other chemical products") published monthly by the Central Statistics Service.

²⁹ These include, landing and clearing fees as determined by Portnet and Safcor, Marine Insurance, hazardous goods insurance, transit insurance and public liability insurance

³⁰ In other words January, April, July and October

³¹ Rand/US\$ Bank Selling Price as quoted by Standard Bank

³² One Calendar Month

remaining 22% of the price for the previous quarter shall be adjusted in accordance with changes in the PPI.

9.5 The price adjustment, according to the weighting set out above, will occur in advance of any quarter, utilising:

9.5.1 the average Rand/US\$ bank selling rate for the first two months of the current quarter;

9.5.2 the average US\$ price at which yellow phosphorous was acquired CFR Durban, for the first two months of the current quarter ; and

9.5.3 the 22% referred to in the preceding paragraph will be adjusted by a factor equivalent to the published percentage increase in the PPI, calculated on the last month of the preceding quarter. In other words a price increase/decrease to come into effect on 1 April 2005 will be based on the increase/decrease in the PPI for December 2004 as against that for September 2004.

9.6 Transport and packaging charges for the delivery of product to the purchaser will be reflected seperately on the invoice and will be the actual cost incurred by Chemiphos for such packaging and transportation.

10. By way of an example:

Assuming the Following:

BASE EX-WORKS PRICE	3.770	R/KG
BASE R/\$ EXCHANGE RATE	10.0	R/US\$
BASE PPI	113.7	
BASE YELLOW PHOSPHORUS PRICE CFR DURBAN (AVE PRICE FOR PERIOD)	980	US\$/MT

Then, if the exchange rate were to change to R6.30/US\$; and
the price of Yellow Phosphorous were to change to R2340/Metric Tonne; and
the PPI were to change to 124.3
the following Phosphoric Acid price would result

PHOSPHORIC ACID PRICE FOR THE FOLLOWING QUARTER

1) YELLOW PHOSPHORUS CONTENT:

AVE. R/\$ EXCHANGE RATE FOR RELEVANT TWO MONTH PERIOD: 6.30

AVE. YELLOW PHOSPHORUS PRICE RELEVANT TWO MONTH PERIOD 2340 \$/MT

BASE PHOS ACID PRICE YELLOW PHOS. CONTENT = $0.78 \times 3.770 = 2.941$

NEW PHOS ACID PRICE YELLOW PHOS. CONTENT =

$$2.941 \times (\text{NEW R}/10.0) \times (\text{NEW YP PRICE}/980) = 4.424 \text{ R/KG}$$

2) LOCAL CONTENT:

PPI FOR RELEVANT MONTH: 124.3

BASE PHOS ACID PRICE LOCAL PPI CONTENT = $0.22 \times 3.770 = 0.829$

NEW PHOS ACID PRICE LOCAL PPI CONTENT = $0.829 \times (\text{NEW CPI}/113.7) = 0.907 \text{ R/KG}$

NEW PHOSPHORIC ACID EX-WORKS PRICE FOR RELEVANT QUARTER 5.33 R/KG

POLYPHOSPHORIC ACID PRICE ADJUSTMENT FORMULA

11. The merging parties shall be entitled to increase the individual prices of Polyphosphoric Acid charged to each of Chemiphos' customers, as at 26 November 2004, according to the following principles:

11.1 Price increases will take into account fluctuations in the US\$ acquisition cost of yellow phosphorous (CFR Durban), including fluctuations in the Rand/US\$ exchange rate as well as fluctuations in the PPI³³ over the previous quarter.

11.2 The prices for 26 November 2004, from which price adjustments will be determined are ex Chemiphos' works and are based on:

11.2.1	<p>RAW MATERIAL: Raw Material: Imported Yellow Phosphorous with actual cost based on:</p> <ul style="list-style-type: none"> ?? A CFR Durban Price of USD2 340 per metric tonne with payment terms of cash against documents; ?? all associated clearing and forwarding charges³⁴; ?? an exchange rate of R6.30 to USD1.00; and ?? a phosphorous efficiency factor of 90% and a conversion factor as determined by the concentration of the product as shown in paragraph 15. 	<p>TOTAL RAW MATERIAL COST R6 582.00 / Metric Tonne</p>
11.2.2	<p>UTILITIES, PRODUCTION OVERHEADS AND PROFIT Utilities, production overheads and profit element.</p>	<p>TOTAL UTILITIES, PRODUCTION OVERHEADS AND PROFIT R6 749.00 / Metric Tonne</p>
	<p>TOTAL BASE PRICE</p>	<p>R13 331 / Metric Tonne</p>

12. Any such price increase will occur on a quarterly basis³⁵ or when the Rand/US\$ exchange rate³⁶ has increased by more than 5% from the exchange rate that prevailed

³³ The PPI is the Production Price Index output of South African Industry Groups for South African consumption, chemicals and chemical products, as recorded in the Statistical News Release, table 3.1 group 2.11 ("other chemical products") published monthly by the Central Statistics Service.

³⁴ These include, landing and clearing fees as determined by Portnet and Safcor, Marine Insurance, hazardous goods insurance, transit insurance and public liability insurance

³⁵ In other words January, April, July and October

³⁶ Rand/US\$ Bank Selling Price as quoted by Standard Bank

at the commencement of the relevant quarter and where the increase persists for a minimum period of one month³⁷.

13. The base price will be adjusted in advance of every quarter:

13.1 by an amount equivalent to the change in the cost of any raw materials described in paragraph 12.1 over the preceding quarter; and

13.2 the amount reflected in paragraph 12.2 (as adjusted in terms of this paragraph) will be adjusted by a factor equivalent to the published percentage increase in the PPI, calculated on the last month of the preceding quarter. In other words a price increase/decrease to come into effect on 1 April 2005 will be based on the increase/decrease in the PPI for December 2004 as against that for September 2004.

14. Transport and packaging charges for the delivery of product to the purchaser will be reflected separately on the invoice and will be the actual cost incurred by Chemiphos for such packaging and transportation.

15. Example: Production Raw Material Cost Calculation.

15.1 115.5% Polyphosphoric Acid
= (variable in store yellow phosphorous cost x fixed conversion factor) / 90%
= (USD 2340³⁸ x 6.3³⁹ x 1.1⁴⁰ x 0.3654⁴¹) / 90%⁴²
= R6582 / Metric Ton

15.2 112.7% Polyphosphoric Acid
= (variable in store yellow phosphorous cost x fixed conversion factor) / 90%
= (USD 2340 x 6.3 x 1.1 x 0.3565) / 90%
= R6420 / Metric Ton

David Lewis

26 April 2005
Date

Concurring: **Yasmin Carrim and Thandi Orleyn**

³⁷ One Calendar Month

³⁸ Yellow Phosphorous Price: US\$/metric tonne CFR Durban

³⁹ Rand/US\$ Exchange Rate

⁴⁰ 10% Landing, clearing and delivery cost

⁴¹ Kilograms of yellow phosphorous in 1 Kilogram of Polyphosphoric Acid for a particular Grade (Theoretical)

⁴² Yield factor of Yellow phosphorous used in the manufacturing process.

For the merging parties:	Anthony Norton (<i>Webber Wentzel Bowens</i>).
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