



**Australian Government**

**Australian Customs and  
Border Protection Service**

**INVESTIGATION INTO THE ALLEGED DUMPING OF  
FORMLATED GLYPHOSATE**

**EXPORTED FROM**

**THE PEOPLE'S REPUBLIC OF CHINA**

**EXPORTER VISIT REPORT**

**SHANDONG WEIFANG RAINBOW CHEMICAL CO., LTD**

**THIS REPORT AND THE VIEWS OR RECOMMENDATIONS CONTAINED  
THEREIN WILL BE REVIEWED BY THE CASE MANAGEMENT TEAM AND MAY  
NOT REFLECT THE FINAL POSITION OF CUSTOMS AND BORDER  
PROTECTION**

**May 2012**

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**2 BACKGROUND****2.1 The application**

On 21 December 2011, Nufarm Ltd (Nufarm) and Accensi Pty Ltd (Accensi) (herein referred to as the applicants) lodged an application requesting that the Minister for Home Affairs (the Minister) publish a dumping duty notice in respect of formulated glyphosate exported to Australia from the People's Republic of China (China).

The applicants subsequently provided further information in support of their application. As a result, Customs and Border Protection restarted the 20 day period for considering the application.

On 6 February 2012, following consideration of the application, the Australian Customs and Border Protection Service (Customs and Border Protection) initiated an investigation. Public notification of initiation of the investigation was made in *The Australian* on 6 February 2012. Australian Customs Dumping Notice No. 2012/05 provides further details of this investigation and is available at [www.customs.gov.au](http://www.customs.gov.au).

Customs and Border Protection has previously conducted two investigations into formulated glyphosate from China. The most recent investigation was in 2001-02, following an application lodged by Monsanto Australia Limited (Trade Measures Report 45 refers). Shandong Weifang Rainbow Chemical Co., Ltd (Rainbow) was not an interested party in this investigation.

There are no current anti-dumping or countervailing measures on formulated glyphosate exported to Australia from China.

**2.2 Purpose of visit**

Prior to initiation of the investigation, Rainbow was identified in the Customs and Border Protection's import database (import database) as a supplier of formulated glyphosate from China during 1 January to 31 December 2011 (the investigation period). Consequently, Rainbow was invited to participate in the investigation, and subsequently requested a copy of an exporter questionnaire to complete.

Rainbow provided an exporter questionnaire response which was supported by confidential appendices and attachments, including confidential spreadsheets containing sales and costs data.

A non-confidential version of Rainbow's exporter questionnaire response was placed on the public record.

The purpose of the visit was to verify information submitted by Rainbow in their exporter questionnaire response.

Customs and Border Protection will use the information and data verified at the exporter verification visit to make preliminary assessments of:

- like goods;
- who is the exporter and who is the importer;

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- export prices;
- normal values; and
- dumping margins.

### 2.3 Meeting dates and attendees

Verification meetings were held at Rainbow's manufacturing facility in Weifang on Wednesday 9 May 2012 to Thursday 10 May 2012. A further verification meeting was held at Rainbow's head office in Jinan on Friday 11 May 2012.

#### Contact details

Company:	Rainbow
Address (factory):	1# Haigang Road, Binhai Economic Development Area, Weifang, Shandong, China
Address (head office):	6 <sup>th</sup> Floor Gaoxinjishuchuangye Center, 750# Shunhua Road, Jinan, Shandong, China
Date of meetings:	9 May 2012 to 11 May 2012

The following representatives were present at various stages of the meetings.

Rainbow	<ul style="list-style-type: none"> <li>• Mr Wicky Wang, President</li> <li>• Ms Sandya Fan, Sales Manager of Asia Pacific Manager of Commercial Dept.2</li> <li>• Other financial accounting and production support staff</li> </ul>
Consultants - Zhong Lun Law Firm	<ul style="list-style-type: none"> <li>• Mr Liu Jianwei, Partner</li> <li>• Mr Liu Jingwei</li> </ul>
Customs and Border Protection	<ul style="list-style-type: none"> <li>• Chris Vincent, Manager, Operations 1</li> <li>• Christie Sawczuk, Manager, Operations 2</li> <li>• Rachel Lohan, Supervisor, Operations 1</li> </ul>

### 2.4 Preliminary issues

Prior to the verification visit an exporter verification visit agenda was forwarded to Rainbow that included sales transactions and costs selected for detailed verification. A copy of the visit agenda is at **Confidential Attachment GEN 1**.

At the commencement of the meeting, we provided a summary of the investigation process and key reporting timeframes as follows:

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- the investigation period is 1 January to 31 December 2011;
- Customs and Border Protection will examine the Australian market from January 2008 for the purpose of analysing the condition of the Australian industry;
- a preliminary affirmative determination (PAD) may be made no earlier than 10 April 2012 – which is the first working day after the Easter public holiday. Provisional measures may be imposed at the time of the PAD or at any time after the PAD has been made, but Customs and Border Protection would not make such a determination until it was satisfied that there appears to be, or that it appears there will be, sufficient grounds for the publication of a dumping duty notice;
- a statement of essential facts (SEF) will be placed on the public record by 28 May 2012 or such later date as the Minister allows<sup>1</sup> - the SEF will set out the material findings of fact on which Customs and Border Protection Intends to base its recommendations to the Minister and will invite interested parties to respond, within 20 days, to the issues raised (submissions received in response to the SEF will be considered when compiling the report and recommendations to the Minister); and
- Customs and Border Protection's report to the Minister is due on 10 July 2012 (refer to footnote 1).

### Exporter questionnaire discrepancies

Upon assessment of Rainbow's exporter questionnaire response Customs and Border Protection identified several discrepancies with the information and data provided (**Confidential Attachment GEN 2** refers). Prior to the verification Rainbow provided additional information and revised confidential attachments to address / resolve the discrepancies (**Confidential Attachment GEN 3** refers).

## 2.5 Visit report

We briefly explained to Rainbow that we would prepare a report of our visit and provide it to the company to review its factual accuracy, and to identify those parts of the report considered to be confidential.

We noted that, in consultation with Rainbow, we would prepare a non-confidential version of the report to be placed on the Public Record.

Rainbow cooperated with the verification of the exporter questionnaire response and provided further information when requested.

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<sup>1</sup> Subsequent to the visit, on 25 May 2012 the Minister's decision to grant an extension to the SEF was publicly notified. The revised SEF due date is 25 June 2012. The revised final report due date is 9 August 2012.

**3 COMPANY INFORMATION**

**3.1 Company information**

In 2005, Rainbow was established in China as a Sino-foreign venture (invested by [redacted] and [redacted] [Company name]). Rainbow is a privately owned proprietary company limited by shares.

Rainbow advised that the company was previously known as Jinan Rainbow Chemical Co., Ltd (which commenced operations in 2000), however when the company's production facilities commenced in Shandong, its name was changed (which is required by Chinese commercial law).

Since 2005, Rainbow's corporate ownership has changed (this report does not details these changes). Currently, Rainbow's shareholders consist of the following [redacted] companies:

- [redacted] [Company names].

In their questionnaire response, Rainbow provided the shareholding structure for the companies listed above (Confidential Attachment COM 1 refers). The shareholders for these companies are private individuals and Rainbow advised that the shareholders (and shareholding percentages) are identical for [redacted] [Company names]. We note that Shandong Rainbow's share of the company was transferred to [redacted] [Company names] in [redacted].

Rainbow advised that their shareholding companies are not directly involved in the sale or production of formulated glyphosate. However we identified several importations of consignments of agrochemicals in the import database, which were supplied by [redacted]. One of these consignments was described as "glyphosate 450" and imported by one customer. Rainbow advised that it included this transaction in its Australian export sales spreadsheet in their exporter questionnaire response (commercial invoice number [redacted] refers).

[redacted] [export sales details]. Rainbow advised that for this transaction [redacted] only participated into the transferring of the goods payment. We were able to confirm that this export sale in Rainbow's Australian export sales spreadsheet.

No other importations by Rainbow's shareholding companies were identified.

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We also sought Rainbow's clarification regarding the company name and role of its main shareholding company, which is referred to as Rainbow International. Rainbow advised that this shareholder is a trading company only and while the Chinese names are different that when translated to English the names for these companies were extremely similar.

In 2011, Rainbow established [redacted] subsidiary companies; and [redacted] [subsidiary details].

Both companies are [redacted] owned by Rainbow and Rainbow advised that these subsidiaries are not involved in either the production or the sale of formulated glyphosate.

We noted that two other subsidiaries [redacted] [subsidiary details] were listed in Rainbow's audited financial reports for 2011. Rainbow confirmed that [redacted]

[redacted] [subsidiary details], are Rainbow's subsidiaries and that they were established for the operations of registrations for relevant pesticides in other countries. These subsidiaries are not involved in either the production or the sale of formulated glyphosate.

We did not identify any importations of agrochemical chemicals from Rainbow's subsidiaries in the import database.

Rainbow provided details of its internal corporate structure in its exporter questionnaire response (**Confidential Attachment COM 2** refers).

### Commercial functions

Rainbow is one of the major manufacturers and exporter of agrochemicals in China. Rainbow manufacture and supply a wide range of fine chemical products (excluding hazardous chemicals), raw agrochemicals, pesticides and dangerous chemicals (including methyl chloride, sulphuric acid 80% and hydrochloric). Rainbow manufactures technical chemical products (i.e. glyphosate technical) and also acts as a trader for these goods. Rainbow manufactures fully formulated products and also repacks formulated products.

The company is export orientated and supply products to 60 (22 in respect of formulated glyphosate) export markets (including Asia, Australia, the Middle East, North and South America). They also supply certain agrochemical products to the domestic market in China. In 2011, based on the total sales revenue (RMB) for all products exports sales and domestic sales represented [redacted] and [redacted] respectively.

### Production facilities

The company advised that its three major product lines relate to triazines, 2,4-D and glyphosate, which reflects their different production facilities.



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Rainbow has three production facilities located in Weifang Binhai Economic Development Zone, as described below.

- *Factory 1* – predominantly utilised for glyphosate production (including glyphosate technical and formulated glyphosate).
- *Factory 2* – predominantly utilised for the production of triazines herbicides (including atrazine, ametryn, simazine, terbuthylazine, terbutryn and prometryn).
- *Factory 3* – predominantly utilised for the production of 2,4-D related products (including 2,4-D acid, 2,4-D dimethylamine salt, 2,4-D sodium salt, 2,4-D butyl ester, 2,4-D isobutyl ester, 2,4-D isooctyl ester and 2,4-D ethyl hexyl ester). Rainbow advised that this factory is located at a distance from the production sites for other agrochemicals.

Rainbow's production facilities incorporate a number of segregated manufacturing sheds, laboratories, offices and warehouse. The sites also include laboratories for quality control and formulation development.

### Company background as relevant to formulated glyphosate

Rainbow advised that it commenced manufacturing formulated glyphosate in 2005 and that production volumes have since increased exponentially. Rainbow manufacture formulated glyphosate (in liquid and dry / granular forms) at its factories in Weifang (and are also responsible for financial, R&D and logistic functions).

Rainbow stated that it commenced exporting formulated glyphosate to Australia in 2008. It advised that prior to this period, Chinese exporters were unable to enter the Australian market due to consumers concerns regarding product quality. In 2008 the price of glyphosate technical decreased significantly from USD \$ [REDACTED] per Kg to USD \$ [REDACTED] per Kg (over a two year period). Rainbow advised that Australian manufacturers with high inventories attempted to maintain higher domestic selling prices, despite declined global market prices. Rainbow was able to capitalise on the opportunity to commence supplying the Australian market, by supplying a lower priced product. Rainbow was able to establish Australian supply channels, with export volumes increasing due to continued customer satisfaction for supplying quality products.

Rainbow advised that since 2008 the overall importance of formulated glyphosate in respect of their total sales has decreased, as profits for glyphosate have decreased as a result of market prices being sustained at lower levels. In 2011, Rainbow's sales of formulated glyphosate represented [REDACTED] of total sales for all products.

### Relationship with suppliers of raw materials

Rainbow advised that it has normal commercial relationships (of buyer and seller) with Chinese suppliers of raw materials used to manufacture formulated glyphosate. It advised that it does not purchase any of its major raw materials from related companies and all sales transactions are arms length. Rainbow provided a list of Chinese companies which it sourced major raw materials from in 2011 (**Confidential Attachment COM 3** refers).

**PUBLIC RECORD**Relationship with customers

Rainbow advised that it has normal commercial relationships (of buyer and seller) with Australian importers of formulated glyphosate and that all sales transactions are arms length.

**3.2 Accounting structure and details of accounting system**

The accounting period utilised by Rainbow is financial year January to December. For accounting purposes Rainbow utilise RMB as its currency.

Rainbow's financial statements are consolidated into annual statements and financial reports which include results for its subsidiaries, which are audited annually. Rainbow advised that its accounting practices are in accordance to the generally accepted accounting principles in China.

As part of its exporter questionnaire response Rainbow provided its:

- chart of accounts (Confidential Attachment A-4.3.1 of the questionnaire refers);
- audited financial report for 2010 (Confidential Attachment A-4.3.2 of the questionnaire refers); and
- un-audited financial statements (including balance sheet and income (Profit and Loss (P&L)) statement) for 2011 (Confidential Attachment A-4.3.3 of the questionnaire refers).

At the visit, Rainbow provided the company's audited financial report (including income statement) for 2011 (Confidential Attachment COM 4 refers). These statements and accounts were audited by [REDACTED]. As several adjustments were made to the un-audited income statement, as provided in their exporter questionnaire response, Rainbow provided an income statement adjustment table to highlight the specific adjustments which were made by their auditors (Confidential Attachment COM 5 refers). Rainbow advised that the most significant adjustments related to sales returns. Rainbow also provided the relevant detailed general sub ledgers (for operating revenue) to support the P&L adjustments (Confidential Attachment COM 6 refers).

Rainbow advised that in conjunction with their annual audited reports, in order to comply with statutory reporting requirements the company prepares financial reports for taxation and banking purposes (which are submitted to Chinese government authorities).

Rainbow advised that for accounting purposes costs are not attributed to cost centres but the company utilises a production process costing system (where costs are attributed to three production stages).

Rainbow utilises [REDACTED] as its financial (general ledger) and management accounting system. During the verification we viewed Rainbow extract financial

information in respect of sales and costs from general / sub ledgers shown through this system.

### 3.3 Production process and product range

#### 3.3.1 Production process

As mentioned previously Rainbow operates three manufacturing and warehousing facilities in China, and formulated glyphosate is predominately produced at *Factory 1* in Weifang. Rainbow manufactures formulated glyphosate in designated workshops.

Rainbow commenced manufacturing formulated glyphosate (in liquid form) in 2005. They commenced manufacturing formulated glyphosate in dry form (water soluble granule - WDG) in 2010, following construction of a new workshop.

Rainbow advised that it manufactures formulated glyphosate by the glycine and Iminodiacetic acid (IDA) production processes, which reflect the key chemical component, utilised to manufacture glyphosate technical. Rainbow's production method is identified in their product codes. In the investigation period Rainbow predominantly utilised the glycine production method. We note that there are other various production methods in respect of glyphosate technical and formulated glyphosate production utilised by other Chinese manufacturers.

At the verification visit Rainbow provided a revised production process diagram (which formed Confidential Attachment G.1.1 to the exporter questionnaire response) (Confidential Attachment COST 2 refers). Rainbow explained that the initial diagram which was not translated accurately.

#### General production process

Rainbow is an integrated manufacturer of glyphosate technical and formulated glyphosate. Rainbow explained that the manufacture of formulated glyphosate was a fairly straight forward process.

Rainbow advised that the initial stage of the production process for formulated glyphosate in liquid forms involves the manufacture of glyphosate technical, which is then combined with mono- isopropylamine (MIPA) to produce the isopropylamine salt of the N-phosphonomethylglycine molecule (the active ingredient). The next process involves formulation, where the isopropylamine salt of glyphosate is blended with surfactants and other ingredients through a filtration and sedimentation process to produce formulated glyphosate as an aqueous solution. The final product is packaged for sale.

Rainbow advised that the production process for dry formulated glyphosate is different to liquid formulated glyphosate, however the key steps are similar as glyphosate technical is blended with surfactants and other ingredients, although goes through granulation and drying processes.

Dry glyphosate formulations have particular advantages over a liquid product, including:

- that it is easier to handle during manufacturing process (including clean up);
- it potentially is easier to handle by the end user (less chemical exposure);

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- its compatibility with residue-free packages and unit-dose packages; and
- many environmentally or toxicologically attractive surfactants are physically compatible with glyphosate salts in a dry formulation.

### Rainbow's production process (linked to workshops and cost allocations)

Rainbow explained that for formulated glyphosate it utilised three production processes:

- Process 1 – production of glyphosate technical;
- Process 2 – production of glyphosate IPA (or glyphosate isopropyl ammonia<sup>2</sup>) salt products; and
- Process 3 – production of glyphosate ammonium salt (WDG) products.

Rainbow provided an overview of each of these processes, raw material consumed; chemical reactions and the by-products, intermediary and final products produced. We also were able to obtain photographic evidence of these processes. The following is a brief summary for each production process.

#### *Process 1*

Rainbow explained that to manufacture glyphosate technical:

- phosphorus trichloride (comprise of yellow phosphorous and liquid chlorine) and methanol undergo an esterification process to produce dimethylphosphite (DMP) and other by products (high boiling materials);
- DMP, paraformaldehyde and methanol are synthesised with glycine and the chemical catalyst tri-ethylamine;
- the resultant solution is then combined with the reagent, hydrochloric acid, and water through a process of hydrolysis, splitting the molecule of the solution;
- a solvent strip process is then applied to the solution removing by-products (chloromethane and dimethoxymethane);
- the solution (a wet cake) undergoes a crystallisation process (by being processed through a centrifuge) to convert the solution to solid crystals of glyphosate technical.

#### *Process 2*

Rainbow explained that following the first process, the next production process required to produce formulated glyphosate with an IPA (or glyphosate isopropyl ammonia) salt base in liquid forms, are as follows:

- glyphosate technical<sup>3</sup>, water and MIPA are formulated and surfactants added;

<sup>2</sup>

<sup>3</sup> Rainbow advised that glyphosate technical wet cake is dried before it is utilised in the next stage of the production. After the glyphosate technical wet cake dried, it goes into the reactor for the formulation together with water, surfactant and isopropylamine.

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- the formulation undergoes mixture, filtration and sedimentation to produce the formulated glyphosate at specific concentrations as aqueous solutions; and
- the formulated glyphosate is packaged (ready for delivery to customer).

### Process 3

Rainbow explained that following the first process, the next production process required to produce formulated glyphosate ammonium salt (WDG) products in dry forms, are as follows:

- glyphosate technical, water and ammonium bicarbonate are formulated and surfactants and dyes are added / mixed;
- the formulation undergoes kneading and granulation processes (in a granulator machine), which is subsequently dried to produce formulated glyphosate at specific concentrations; and
- the formulated glyphosate is packaged (ready for delivery to customer).

Rainbow stated that the formulated glyphosate which is produced (regardless of whether the final product is produced through processes 2 or 3) is packaged on site and sent directly to the port for export or ready for pick up by the domestic customer or delivery direct to the customer.

### Production capacity

Rainbow's operating and maximum production capacity for formulated glyphosate in 2011 is tabulated below:

Production capacity (L)	██████████
Actual production in volume (L)	██████████
Production capacity (Kg)	██████████
Actual production in volume (Kg)	██████████

To calculate production capacity figures Rainbow assumed that the production processes:

- for liquid formulate glyphosate operates at 7 days a week for 24 hours (for 365 days); and
- for dry formulated glyphosate at 7 days a week for 24 hours (for 365 days).

Rainbow's production capacity utilisation for formulated glyphosate in liquid and dry forms in 2011 was █████ and █████ respectively.

### 3.3.2 Product range (formulated glyphosate)

Rainbow supplies a wide range of agrochemical products, including herbicides, fungicides and insecticides, predominately to export markets including Australia.

In 2011, of total sales volume of formulated glyphosate (in liquid forms), Rainbow supplied █████ to the Australian market, █████ to third country exports markets

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and [REDACTED] to the domestic market in China. In 2011, of total sales volume of formulated glyphosate (in dry forms)<sup>4</sup>, Rainbow supplied [REDACTED] to the Australian market and [REDACTED] to third country exports markets and made [REDACTED] sales to the domestic market in China.

**Salts and active ingredient levels**

Rainbow currently manufactures formulated glyphosate with varying active concentrations and a salt based of MIPA, ammonia or ammonium. Rainbow also supplies a range of formulated glyphosate which are distinguished by active glyphosate technical concentrations. Rainbow's products are described by the proportion of glyphosate technical contained in the formulations on a weight by volume basis for export sales (i.e. [REDACTED]) and on a weight for weight basis for domestic sales (i.e. [REDACTED]). Section 4.1 contains further details regarding description of formulated glyphosate sold by Rainbow, including packaging sizes, in the Australian and Chinese markets.

Rainbow's general<sup>5</sup> product range includes:

- IPA (and others) salt - glyphosate 62%<sup>6</sup>, formulated glyphosate 360 g/L and 450 g/L; and
- ammonium and ammonia salt (as relevant) - formulated glyphosate 75.7% and 88.8% and 360 g/L.

Rainbow stated that they currently do not manufacture formulated glyphosate with a potassium salt base (which is patented by Syngenta (a US company)). However we note that formulated glyphosate 555 g/L and 665 g/L products with a potassium salt base are included in their product brochure. However we confirmed that Rainbow did not export formulated glyphosate with a potassium salt base to Australia during the investigation period.

As mentioned previously, although outside the scope of the investigation we note that Rainbow manufacture glyphosate technical with concentrations at [REDACTED] and [REDACTED].

<sup>4</sup> This does not include glyphosate 62%. See foot note 6.

<sup>5</sup> Particular products listed may not be exported to Australia or sold on the domestic market in China.

<sup>6</sup> Rainbow does not consider glyphosate 62%<sup>6</sup> to be within the scope of the investigation, section 4.3 refers.

**4 GOODS UNDER CONSIDERATION AND LIKE GOODS**

**4.1 The goods**

General description

The goods the subject of the application (the goods) is formulated glyphosate. The application specifies that:

*"The imported product the subject of this application is formulated glyphosate, a non-selective herbicide, imported in varying strengths of the active glyphosate acid ingredient ("glyphosate technical"). A non selective herbicide is one that controls weeds in all situations"*<sup>7</sup>.

Formulated glyphosate products are used for the non-selective control of weeds and are absorbed by the leaves and green tissue of susceptible plants. Translocated throughout the plant, formulated glyphosate based herbicides inhibit a specific enzyme, EPSP synthase, which plants need in order to grow. Without that enzyme, plants are unable to produce other proteins essential to growth, so they yellow and die over the course of several days or weeks.

Glyphosate formulations

The application states that in the Australian market the different formulations (of glyphosate) are described according to grams of glyphosate technical per litre (g/L) or kilogram, whereas on the global market the formulations are commonly described by the percentage of glyphosate technical contained in the formulations on a weight for weight basis. The application contains the following indicative comparison of the glyphosate formulations described by grams per litre / kilogram or percentage basis of glyphosate technical.

Litre (L)	360	41.6%
L	450	50.6%
L	570	61.5%
Kilogram (Kg)	690	75.7%

This table is indicative only<sup>8</sup>.

<sup>7</sup> Application for the publication of a dumping duty notice for formulated glyphosate exported from China (Application), page 7.

<sup>8</sup> Application, page 8.

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The application specifies that:

*"This application is concerned with imported Glyphosate in all its fully formulated liquid forms **including** Glyphosate 360, Glyphosate 450 and Glyphosate 570 and the fully formulated dry form including Glyphosate 680<sup>9</sup>."*

The applicants claim that:

- the imported formulated glyphosate products (at varying strengths) have the same end use;
- all formulations strengths are substitutable;
- the imported dry formulation can be substituted for liquid forms; and
- all imported formulations are applied within the approved application rates indicated on the product label, expressed on a litre per hectare basis.

At the consideration stage of the investigation, Customs and Border Protection considered that the goods covered by the application and investigation, includes formulated glyphosate in any form (i.e. not limited to liquid forms) and at any concentration (whether described according to weight of glyphosate technical by volume or percentage of glyphosate technical).

### Exclusion of certain goods from investigation

The application specifies that it is important to distinguish between formulated glyphosate (i.e. the goods) and glyphosate acid, which is the primary ingredient in the manufacture of formulated glyphosate. Glyphosate acid is **not** the subject of the application.

Customs and Border Protection considered that the goods covered by the application, and that the investigation does **not** include glyphosate acid.

## 4.2 Tariff classification

Formulated glyphosate is classified under the tariff subheading 3808.93.00 (statistical code 48) of Schedule 3 to the *Customs Tariff Act 1995*. The current rate of duty applying to the goods imported to Australia from China is 5%.

There are currently no Tariff Concession Orders applicable to the relevant tariff subheadings.

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<sup>9</sup> Application, page 8.



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## 4.3 Like goods

### 4.3.1 2011 – Rainbow's like goods and GUC<sup>10</sup>

Rainbow provided a formulated glyphosate product concordance table identifying (in 2011) all products exported to Australia (reflecting the description of the GUC) and comparable products sold domestically in China. This chart form Confidential Attachment C.3 of the exporter questionnaire responses (**Non Confidential Attachment GOODS 1** refers). Rainbow claimed that excluding glyphosate 62% there was one formulated glyphosate product which was sold on the domestic market, which it considered was not a like good (this is discussed further below).

#### Exports to Australia

Rainbow advised that in 2011 it manufactured and exported to Australia the following formulated glyphosate products (shown by packaging type), which it considers are GUC:

Product Code	Product Name / Code	Packaging type
450	Glyphosate IPA 450G/L SL(SL0190)(by Acid) / [product code]	20 L, 110 L and 1000 L
	Glyphosate IPA 450G/L SL(SL0220)(by Acid) / [product code]	20 L, 110 L and 1000 L
	Glyphosate IPA 450G/L SL(SL0230)(by Acid) / [product code]	20 L, 110 L and 1000 L
470	Glyphosate IPA 470G/L SL(SL0230)(by Acid) / [product code]	1000 L
680	Glyphosate 680 WSG / [product code]	10 Kg
700	Glyphosate 700 WSG / [product code]	10 Kg

Rainbow advised that it holds a registration with the Australian Pesticides and Veterinary Medicines Authority (APVMA) to manufacture and supply glyphosate technical to the Australian market. They noted that while they also hold registrations for formulated glyphosate products (labelled and branded as Rainbow products), they only manufactured according to product formulations registered to their Australian customers. Rainbow advised that to supply formulated glyphosate into the Australian market, the Australian customer requesting product formulation is required to hold relevant registrations, rather than the formulator. Rainbow stated that the regulatory requirements in respect of agrochemical products supplied in Australia are significantly more stringent than compared to Chinese requirements.

Rainbow noted that Australian customers predominately demand formulated glyphosate in 1000 L Intermediate Bulk Container (IBCs), followed by 20 L containers. Rainbow source IBCs from Schutz (sourced domestically or imported from Australia) and they participate in the Schutz container recycle system. Rainbow

<sup>10</sup> Note this subsection does not include the *Glyphosate IPA 62% SL product*, which is discussed at the sub section titled "*Glyphosate products – outside scope of like goods*".

# PUBLIC RECORD

advised it is the only Chinese manufacturer which exports formulated glyphosate in 110 L containers, as they invested in procuring a mould to manufacture this container type. It also noted that Australian demand for product in 110 L is increasing.

Rainbow advised that in 2011 they also exported another glyphosate product "Glyphosate IPA 62% SL" (glyphosate 62%) packaged in 1250Kg/IBC to Australia, however that they did not consider this product to be a GUC. This issue is discussed further at section 4.5.

Notwithstanding this claim, we requested that Rainbow provide an updated Australian export sales spreadsheet to include these sales (noting that further investigation regarding whether or not these products are GUC is required) (**Confidential Attachment GOODS 1** refers).

### Domestic sales

Rainbow advised that in 2011 it manufactured and supplied the following formulated glyphosate product (shown by packaging type) to the Chinese domestic market, which it considers is a like good:

360	Glyphosate	IPA	41%	SL	200 Kg / drums
			[product code]		

Rainbow advised that it did not export the product above to Australia. We also noted that the formulated glyphosate sold domestically by Rainbow was a liquid product with an ammonia salt base. The Australian industry has advised that this product formulation is not registered with the AVPMA and is therefore illegal to import to Australia.

Rainbow advised that in 2011 they also supplied *Glyphosate IPA 62% SL* to the Chinese domestic market (packaged in 250Kg per drum), however that they did not consider this product to be like goods. This issue is discussed further at section 4.5. Notwithstanding this claim, we requested that Rainbow provide an updated domestic sales spreadsheet to include these sales (noting that further investigation regarding whether or not these products are GUC is required) (**Confidential Attachment GOODS 3** refers).

We also sought Rainbow's confirmation that the formulated glyphosate which they supplied domestically in China was not produced utilising mother liquor, which is a by-product from the glyphosate technical production process. It is now illegal to manufacture and distribute mother liquor in China. Rainbow confirmed that they do not manufacture products based on mother liquor. As Rainbow's commercial focus is export market orientated, it advised that historically it had not manufactured mother liquor, which was only sold on the domestic market in China.

**PUBLIC RECORD****4.3.2 Key similarities and differences**General

Rainbow advised that the formulated glyphosate produced domestically in China are similar and like goods to the formulated glyphosate exported to Australia; however there were discernable difference between products.

Rainbow advised that the end use for formulated glyphosate in Australia and China is the same. Formulated glyphosate is used as an herbicide for broad-acre weed control, along with certain horticulture and home and garden applications (requiring weed control).

Rainbow advised that formulated glyphosate products manufactured in Australia or imported from China contain similar concentrations of glyphosate technical. It confirmed that formulated glyphosate sold on the domestic market in China was described on a weight to weight basis, where as the products exported to Australia were described on a weight to volume basis and active content is calculated by Glyphosate Acid, not IPA salt, as discussed previously.

Rainbow advised that formulated glyphosate 360 g/L and 450 g/L were the predominant products supplied (by Australian formulators or importers) to the Australian market.

Physical appearance - differences

Rainbow advised that formulated glyphosate 360 g/L and 450 g/L products exported to Australia were blue liquids (as a blue dye was applied during the manufacturing process). Where as formulated glyphosate 360 g/L sold domestically in China was a red liquid (reflecting the red dye applied during the manufacturing process). This claim is supported by certificates of analysis provided for Australian export sales and domestic sales. Rainbow advised that the colour of the product reflects consumer preferences and market branding and does not effect product application.

Rainbow advised that it considers formulated glyphosate in liquid and dry forms to be like goods to the GUC. Rainbow advised that these products have the same end use and both are further diluted with water before application.

As mentioned previously, Rainbow stated that formulated glyphosate with different salt bases are supplied to the Australian and domestic market in China. Rainbow advised that there are different efficacies associated with the salts of glyphosate, however they all form part of a final product (i.e. formulated glyphosate) which have the same end use. Rainbow made no claims in respect of like goods and the salts of glyphosate and like goods.

Rainbow also advised that another variant between the formulated glyphosate which is exported to Australia and supplied on the domestic markets is packaging. Formulated glyphosate is packed and exported to Australia in containers ranging in size from 20 L to 1000 L. However formulated glyphosate sold on the domestic market by Rainbow is packed and supplied in 200 L and 250 Kg drums.