



Guidance for Completing the Statement of Product Specification Form (Form 6003)

This Statement of Product Specification Form (SPSF) is designed for reporting the composition of technical grade active ingredients (TGAI), integrated system product (ISPs), manufacturing concentrates (MAs) and end-use products (EPs) registered by the PMRA. A separate SPSF must be completed for each type of product.

NOTE: A TGAI typically contains an active ingredient and impurities. An ISP typically contains an active ingredient, impurities and a stabilizer. A MA typically contains a TGAI and a diluent. An EP typically contains a TGAI, diluent and other formulators.

List of Abbreviations

a.i.	active ingredient
CAS	Chemical Abstracts Service
EP	end-use product
ISO	International Organization for Standardization
ISP	integrated system product
IUPAC	International Union of Pure and Applied Chemistry
LCL	lower certified limit
MA	manufacturing concentrate
PCPA	<i>Pest Control Products Act</i>
PMRA	Pest Management Regulatory Agency
Reg#	Pest Control Product Registration Number
SPS	Statement of Product Specification
SPSF	Statement of Product Specification Form
TGAI	technical grade active ingredient
UCL	upper certified limit

Reference Documents:

- [DIR98-03](#) *Chemistry Requirements for the Registration of a Manufacturing Concentrate or an End-Use Product Formulated from Registered Technical Grade of Active Ingredients or Integrated System Products*
- [DIR98-04](#) *Chemistry Requirements for the Registration of a Technical Grade of Active Ingredient or an Integrated System Product*
- [DIR2006-02](#) *Formulants Policy and Implementation Guidance Document*
- [REG2007-04](#) *PMRA List of Formulants*

1.0 Utility Buttons

Several tools are available to users when completing this form as an electronic document. The tools in the electronic SPSF are fully supported in Adobe Acrobat Standard Edition 5.0 or greater.

1.1 Guidance Checkboxes

To assist the user in completing the required fields for a specific product component, there are three checkboxes labelled A (Active ingredient), F (Formulant) and I (Impurity). These checkboxes act as guidance for fields that are **not** required for the different product components. If a field is not required for a component, it will be greyed when the appropriate component checkbox type is selected. The checkboxes are only for guidance purposes and do not have to be used when filling out the SPSF. Please note that when the SPSF is printed, the checkboxes are not visible.

1.2 Buttons

Print: use this button to print the SPSF. Selecting the Print button will automatically deselect any of the guidance checkboxes. This allows printing without greyed fields.

Add Sites: adds a page for entering alternate formulant supplier and alternate formulating site name and address information (see Section 6.0).

Add Components: adds a page of five formulation component records each identified by a row number.

Delete Page: deletes a selected page or range of pages from the SPSF.

Insert Row: inserts a blank record on the SPSF. To use, click on the row number box of the row you want to insert above, then select the Insert Row button. Data will automatically be shifted down to the next row.

Delete Row: to use, click on the row number box of the row that you want to delete, then select the Delete Row box. The data in the selected row will be deleted, and all other rows will be shifted up one row.



1.3 Numerical Fields: Electronic Features

- For fields that only accept numerical values (e.g. Box 9), scientific notation can be used for very large or very small numbers (e.g. $0.00004 = 4e-5$).
- The “Sum of the % w/w” value is calculated automatically (including values expressed by scientific notation).

2.0 PDF File Document Security

If submitting an electronic PDF file to the PMRA, please ensure that the Document Security features are turned off so that there are no restrictions placed on the document.

In Acrobat version 5.0, Document Security is found under File → Document Security.

In Acrobat version 6.0 or 7.0, Document Security is found under File → Document Properties.

There should be no restrictions on the PDF document to allow for internal annotations by the PMRA. Figure 1 is an example of an acceptable PDF file with no document restrictions.

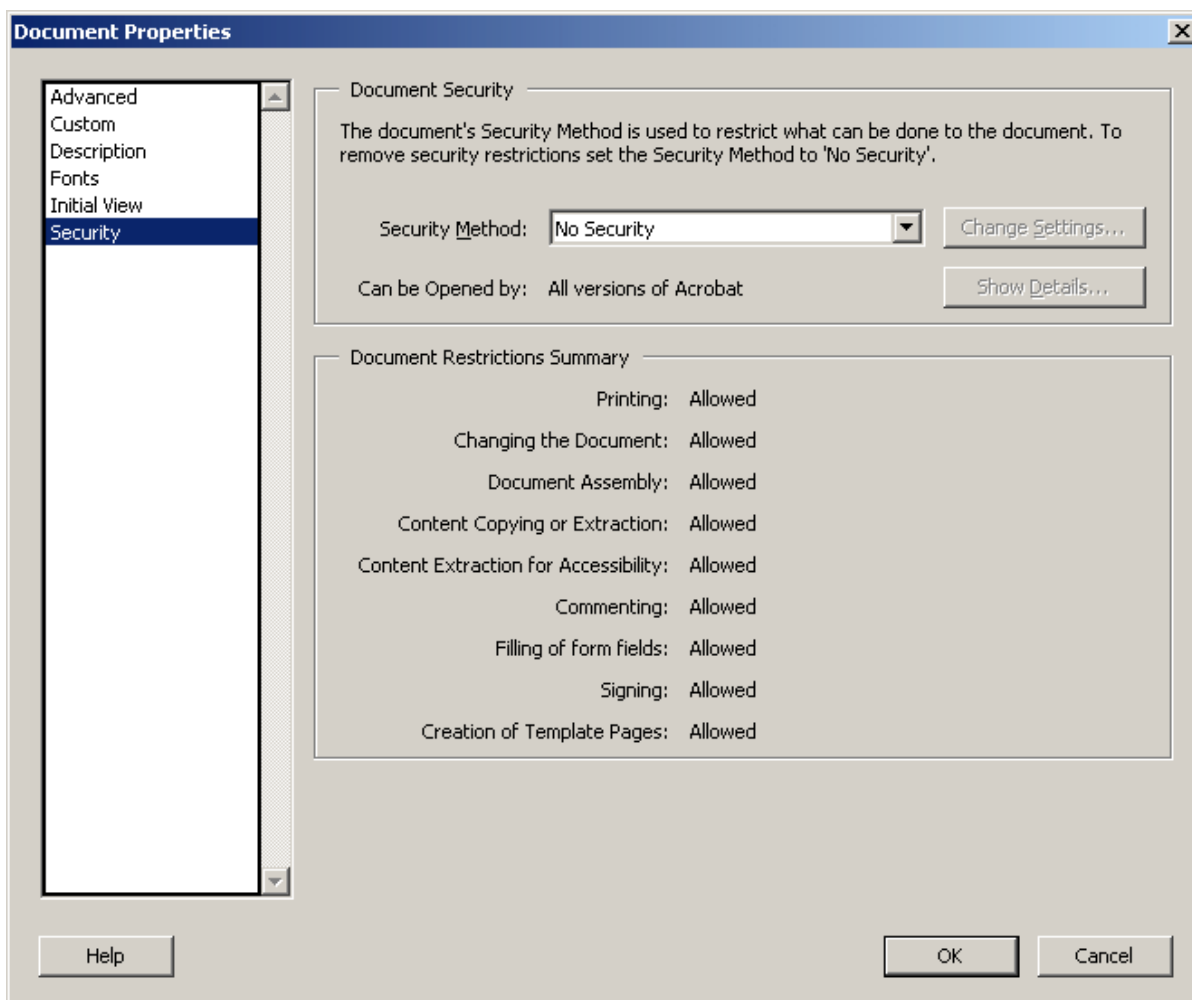


Figure 1 An acceptable PDF file with no document restrictions.
(Acrobat version 6.0 shown)

3.0 Completing Boxes A to O

For field definitions, please refer to Appendix A.

4.0 Completing Components' Section of the SPSF

For field definitions, please refer to Appendix B.

4.1 Listing Components

List all components (including active ingredients, formulation preservatives, formulants and impurities) of the product in accordance with Section 2.12 of Regulatory Directive DIR98-04 for TGAs and ISPs or Section 3.3 of Regulatory Directive DIR98-03 for MAs and EPs.

As appropriate for the specific product type, please list the active ingredients first, followed by formulation preservatives, formulants and impurities.


4.2 Completing Components' Section for Active Ingredients

Active ingredients are the product components with pesticide activity. If a product containing multiple active ingredients is used in the formulation of another product, each active ingredient that it contains must be listed in separate rows on the SPSF.



The following **required fields** are to be completed for each active ingredient within an EP or MA:

- **Common name (box 2)**
- **Chemical name (box 3)**
- **Supplier name and address (box 4)**
- **Purity (box 6)**
- **CAS# (box 7)**


- **% w/w (box 9)**
- **Purpose (box 10)**
- **% LCL (box 11)**—if the guarantee of the source of active ingredient is a minimum, then the guarantee for the product must also be minimum and the calculated percent concentration of the active ingredient is represented in this box. If the source of the active ingredient is nominal, then the calculated lower percent certified limit is placed in this box.
-  **Label Guarantee (box 14A)**—for the active ingredient, enter the name of the active ingredient as it appears on the label. The common name of the active ingredient should be used; if it is not established, then the approved CAS or IUPAC chemical name of the active ingredient should be used. For formulation preservatives, the preservative statement as listed in the Formulators Policy and Implementation Guidance Document is required.
- **Value (box 14B)**—the numerical value of the guarantee as it appears on the label of the product.
- **Units (box 14C)**—the abbreviated units that describe the numerical guarantee (refer to Appendix D for commonly used abbreviated units).

 The following information **may be required** depending on the source of active ingredient used in the EP or MA:

- **Trade name (box 1)**—the brand name for the product containing the active ingredient, if one exists.
- **Reg# (box 5)**—provide the registration number of the product providing the active ingredient used in the formulation. If the product providing the active ingredient is pending registration, enter the registration number if it is known. If a registration number has not been assigned either enter the submission number if it is known or enter “pending”. If an unregistered formulation preservative or grandfathered technical is being used, a registration number is not required.
- **% Nominal (box 12)**—required if the product has a nominal guarantee. This field represents the percent calculated nominal concentration. A product can only have a nominal guarantee if the source of the active ingredient has a nominal guarantee.
- **% UCL (box 13)**—required only if the active ingredient has a nominal guarantee
- **LCL and UCL (boxes 14D and 14E)**—for a nominal guarantee only, the lower and upper certified limits in the guarantee units.

 The following **required fields** are to be completed for a TGAI:

- **Common name (box 2)**—the ISO common name is required, if established.
- **Chemical name (box 3)**
- **CAS# (box 7)**
- **% w/w (box 9)**
- **Purpose (box 10)**
- **%LCL (box 11)**—if the guarantee is registered as a minimum then the calculated percent concentration is represented in this box. If the guarantee is registered as a nominal, then the calculated lower percent certified limit is placed in this box.
- **% Nominal (box 12)**—if the TGAI is registered with a nominal guarantee.
- **%UCL (box 13)**—if the TGAI is registered with a nominal guarantee.
- **Label Guarantee (box 14A)**
- **Value (box 14B)**
- **Units (box 14C)**
- **LCL and UCL (boxes 14D and 14E)**—if the TGAI is registered with a nominal guarantee.

 The following fields **should not** be completed for a TGAI:

- **Trade name (box 1)**
- **Supplier name and address (box 4)**
- **Reg # (box 5)**
- **Purity (box 6)**

Table 1 Summary of the Required Fields for a Minimum vs Nominal Guaranteed Product

Guarantee of the product providing the active ingredient is:	Guarantee of the product must be represented on the SPSF as:	Required fields relating to the guarantee on the SPSF
Minimum	Guarantee must be a minimum	Box 11 % LCL Box 14A Name of active Box 14B Guarantee value Box 14C Guarantee units
Nominal	Guarantee must be nominal	Box 11 % LCL Box 12 % Nominal Box 13 % UCL Box 14A Name of active Box 14B Guarantee value Box 14C Guarantee units Box 14D LCL Box 14E UCL

4.2.1 How to Determine If a Registered Source of an Active Ingredient Is Nominal or Minimum

To determine if a source of active ingredient is expressed as a minimum or nominal guarantee, please refer to the [“Product Label Search”](#) tool which can be found by selecting “Label Search” from the “Quick Links” pull down menu on the main page of the PMRA website. Perform a search for the registered source of the active ingredient. Select the trade name of the active ingredient to view the product information related to the active ingredient. At the bottom of the information page in the “Active ingredient(s)” box, the guarantee will be listed as minimum or nominal.

4.3 Completing Components’ Section for Formulation Preservatives

A formulation preservative is defined as a formulated pest control product intentionally added to protect a formulation from degradation or denaturation by pests; so they are considered active ingredients. However, formulation preservatives do not contribute to the intended effect of the pest control product to which they are added. Formulation preservatives should be represented as active ingredients on the SPSF (see Section 4.2).

4.4 Completing Components’ Section for Formulants

Formulants are components other than active ingredients that are added intentionally to a formulation. Each formulant and its associated information should be captured in a separate row. If a formulant is an alternate used in the same amount, it is listed on a separate row, and the % w/w and certified limits for the alternate formulant are left blank (see Appendix D, example 10). If there are multiple suppliers for a particular formulant (i.e. a chemically identical formulant that is supplied by a different company but has the same formulant name), the names and addresses of the alternate suppliers are to be listed on the Alternate Formulating Site / Alternate Formulator Supplier Page.

The following **required fields** are to be completed for each formulant within a formulation:

- **Supplier’s name and address (box 4)**
- **% w/w (box 9)**
- **Purpose (box 10)**
- **% LCL (box 11)**
- **% UCL (box 13)**

Only **one** of trade, chemical or common name is required to be filled in:

- **Trade name (box 1)**—if a formulant has a brand name, this is the only name of the formulant that must be provided.
- **Chemical/common name (box 2 and 3)**—if a formulant does not have a trade name, provide the chemical or common name.

The following information **may be required** depending on the type of formulant used in the product:



CAS# (box 7)—For formulants that have a trade name the CAS# (box 7) should remain blank. For Formulants without a trade name, a CAS# **must** be provided if it exists.

The following information is **not** required and not applicable if the component is a formulant:

- **Reg# (box 5)**
- **% Nominal (box 12)**
- **Label guarantee (box 14A)**
- **Value (box 14B)**
- **Units (box 14C)**
- **LCL (box 14D)**
- **UCL (box 14E)**

4.5 Completing the Product Components' Section for Impurities

Impurities are byproducts or residual chemicals that usually occur only in the manufacture of technical grade products and are usually only listed in TGAI and ISP products.

The following **required fields** are to be completed for impurities:

- **Chemical name (box 3)**
- **CAS# (box 7)**
- **% w/w (box 9)**
- **Purpose (box 10)**
- **% UCL (box 13)**

If the common name is known, it can be provided in box 2. If the applicant has assigned code names to the impurities, these code names are entered here for purposes of cross referencing to batch and other data.

The following field information is **not** required and not applicable if the component is an impurity:

- **Trade name (box 1)**—there should be no brand names for impurities. Otherwise, the ingredient is not considered an impurity.
- **Supplier's name and address (box 4)**
- **Reg # (box 5)**
- **Purity (box 6)**
- **% LCL (box 11)**
- **% Nominal (box 12)**
- **Label guarantee (box 14A)**
- **Value (box 14B)**
- **Units (box 14C)**
- **LCL (box 14D)**
- **UCL (box 14E)**

4.6 Summary of the Field Requirements for Different Product Components

Component Record Fields Required (R), Conditionally required (CR) or not applicable (N/A)

FIELD	Active Ingredient	Formulation Preservative	Formulant	Impurity
1. Trade Name	R (if it exists)	R (if it exists)	R (if it exists)	N/A
2. Common Name	R	R	CR ²	CR ⁴
3. Chemical Name	R	R	CR ²	R
4. Supplier Name and Address	R ⁵	R	R	N/A
5. Reg#	R	CR ¹	N/A	N/A
6. Purity	R	R	N/A	N/A
7. CAS#	R	R	CR ³	R ³
8. List#	N/A	N/A	If known	N/A
9. % w/w	R	R	R	R
10. Purpose	R	R	R	R
11. % LCL	R	R	R	N/A
12. % Nominal	R if nominal	R if nominal	N/A	N/A
13. % UCL	R if nominal	R if nominal	R	R
14A. Label Guarantee	R	R	N/A	N/A
14B. Value	R	R	N/A	N/A
14C. Units	R	R	N/A	N/A
14D. LCL	R if nominal	R if nominal	N/A	N/A
14E. UCL	R if nominal	R if nominal	N/A	N/A
15. Other Info	As needed	As needed	As needed	As needed

¹ The registration number is required only if the formulation preservative is registered at the PMRA.

² Either a common or chemical name is required if there is not a trade name for a formulant. If a trade name is provided for a formulant, the common and chemical name are not required.

³ If the ingredient has no CAS# (such as corn or wheat), report the value as N/A (not applicable). If the ingredient has a trade name leave the CAS# field blank.

⁴ If the applicant has assigned code names to the impurities, these code names are entered in the common name field for purposes of cross referencing to batch and other data.

⁵ If the SPS is for a TGAI, supplier information is not applicable as it is a manufactured product.

5.0 Certification of Approving Official

An authorized signing official must approve the declaration certifying that the information provided is true and complete.

The information you provide on the SPSF is collected by (for) Health Canada under the authority of the *Pest Control Products Act* for the purpose of registration. Information that could cause you or your organization injury if released is protected from disclosure as defined in Section 20 of the *Access to Information Act*.

6.0 Completing the Alternate Suppliers/Formulators Page

This page is to be used only for adding formulating sites for a product and for alternate formulant suppliers. The Reference Page and Row Number are used to identify the referring component. For alternate formulating sites, the page number is always designated page 1 and the row number is always designated as zero. Note that for TGAIs and ISPs, each manufacturing site requires a separate SPSF to be completed.

7.0 Other Information

7.1 Standard Certified Limits

Identification of the certified limits is required for all product components in accordance with Section 2.12 of DIR98-04 for TGAI or ISPs or Section 3.3 of DIR98-03 for MAs and EPs. The standard certified limits are calculated as follows:

Nominal Concentration of the Ingredient	Lower Limit (LCL)	Upper Limit (UCL)
$20\% < N \leq 100\%$	$N - [3\% N]$	$N + [3\% N]$
$1\% < N \leq 20\%$	$N - [5\% N]$	$N + [5\% N]$
$N \leq 1\%$	$N - [10\% N]$	$N + [10\% N]$

Active ingredients only require UCL and LCL if the source of active ingredient has a **nominal** guarantee.

Formulants always require lower and upper certified limits.

Impurities only require upper limits. However, the limits are based on batch data and are not calculated values.

7.2 Representation of Repackaged Products

When a product consists of 100% of an existing product **registered with the PMRA**, it is considered a repackaged product. In this instance, the detailed formulation does not have to be listed. Instead, the name of the product (as registered with the PMRA) being used must be listed, with registration number and the guarantee as presented on the label (represented as minimum or nominal as appropriate). The % w/w is represented as 100% of the repackaged product (see Appendix D, example 11).



The following fields are **required** when representing a Repack:

- **Trade name (box 1)**
- **Reg # (box 5)**
- **Supplier's name and address (box 4)**
- **%w/w (box 9)**
- **Purpose (box 10)**—"Active"
- **Label Guarantee (box 14A)**—name of the active ingredient as it appears on the label of the product that it is repacking.
- **Value (box 14B)**
- **Units (box 14C)**—as listed on the label of the product that it is repacking.
- **LCL and UCL (boxes 14D and 14E)**—required if the guarantee of the repackaged product is nominal.
- **Other Info. (box 15)**—the word "Repack" should be placed in this box.



If there is a formulation preservative present, the following fields are **required** on a separate row:

- **Purpose (box 10)**—"Preservative"
- **Label Guarantee (box 14A)**—preservative statement on the label of the product that it is repacking.
- **Value (box 14B)**
- **Units (box 14C)**

7.3 Representation of the Guarantee When Using Nominal and Minimum Sources of the Same Active Ingredient

When using two different sources of the same active ingredient and one source of active ingredient is nominal while the other is minimum, the guarantee of the product using the active ingredient **must** have a minimum guarantee. To calculate the guarantee using the nominal source, the lower certified limit of the nominal source is used as the purity of the active ingredient.

7.4 Formula for the Calculation of a Guarantee as Percent or g/L

A product label guarantee that is expressed in **percent** is calculated on the SPS as follows:

$$[\% \text{ purity of the source of a.i.}] \times [\% \text{ w/w of the source of a.i. in product}] \times 100\% = \% \text{ guarantee}$$

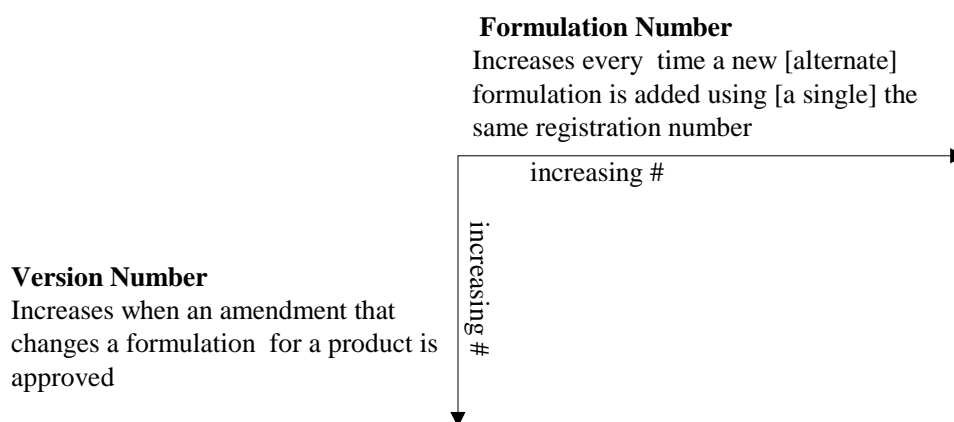
A guarantee that is expressed in **grams per litre** is calculated on the SPS:

$$[\% \text{ purity of the source of a.i.}] \times [\% \text{ w/w of the source of a.i. in product}] \times \\ [(\text{specific gravity} \times 1000 \text{ g/L}) \text{ or density in g/L}] = \text{guarantee in g/L}$$

Appendix A Field Definitions for Boxes A to N

- A. Page ____ of ____:** Consecutively number the pages, and record the total number of pages on each page (e.g. “1 of 3”, “2 of 3”, “3 of 3”), as appropriate.
- B. Registration No.:** Identify the assigned registration number if the product is or has been previously registered under the PCPA. Do not enter any other number in this space.
- C. Product Name:** Use the name of the product as written on the application form.
- D. Formulation Type Code:** Select the appropriate descriptive code (for all products) from the list in Appendix C. Please use the two-letter code on the SPSF. (The formulation type code must remain consistent during a product’s registration). Technical products must be described as either a solid or a liquid.
- E. Formulation No.:** This box is used to distinguish multiple formulations of an EP or MA (or sites of manufacture for TGAI) under a single registration number that are required to be listed on a separate SPSF. These formulations are to be numbered sequentially starting at “1”. If there is only one formulation, the formulation number will be “1”. (Please refer to the *Formulants Policy and Implementation Guidance Document*, DIR2006-02)
- F. Version No.:** This number tracks changes to a formulation. Each time the formulation is modified under an individual formulation number, this value is incremented by one. For new products and formulations, the version number will start at “1”. When amending a formulation, registrants should propose a new version number that will be verified by the PMRA. For guidance, please refer to DIR2006-02.

The formulation and version number can be summarized as follows:



- G. Name of Registrant/Proposed Registrant:** Identify the company name that is the **legal** owner of this product’s registration. Please note that an address is not required.
- H. Name and Address of Manufacture/Formulation Site**
- i. Manufacturing Site for a TGAI or ISP**
A **separate** SPSF is required to identify each site of manufacture of a TGAI or ISP under a single registration number. This is the address of the geographical site where a TGAI or ISP is manufactured. Please be as specific as possible when providing the site location. Please note that a P.O. box or a mailing address is not acceptable.

ii. Formulating Site for a Manufacturing Concentrate and End-use Products
Identify the geographical locations (address) where these products are formulated. If the product is repackaged or relabelled, provide the company's name and address where relabelling or repackaging activities occur.

If more than one facility is used, identify one formulator in the box provided, acknowledge the existence of multiple facilities by checking the "multiple formulation site" box and list the alternate sites on the last page provided with this form entitled "Alternate formulating sites / Alternate Formulant Suppliers". ***On this page, provide the page and row number (e.g. page 1, row 0) to reference that the names and addresses are for formulation sites.***

I. Third Party Contact Information: If this SPSF was submitted on behalf of the registrant, and the product specifications are confidential from the registrant, please provide contact information for an individual that the PMRA may contact for any SPSF related communication that may be required.

J. Specific Gravity: Provide the specific gravity for liquid products. The specific gravity has no units and is defined as the density of the product divided by the density of water. (Section 3.5 of DIR98-03 for MAs and EPs or Section 2.14 of DIR98-04 for technical products).

Density: Provide the density in metric units (Section 3.5 of DIR98-03 for MAs and EPs or Section 2.14 of DIR98-04 for technical products). If applicable, a range may be specified in the lower and upper value boxes. If a single value is to be reported, enter that value in both the lower and upper boxes.

K. Flash Point: Provide the flash point in units of °C for combustible liquid MAs and EPs (Section 3.5 of DIR98-03).

L. Flame Extension: Provide the flame extension for aerosol products, reported in centimetres (Section 3.5 of DIR98-03).

M. Viscosity: Enter the value in mPa(s) if the product is a liquid MA or EP (Section 3.5 of DIR98-03).

N. pH: Enter the value for a 1% solution/suspension for liquid products as packaged or applied as aqueous solutions (Section 3.5 of DIR98-03).

O. This is an optional field for registrants if they have an internal company ID used to identify a product. This field is not reviewed by the PMRA.

Appendix B Product Component Definitions

Box:

1. **Trade name:** The brand name for the ingredient. For PMRA registered ingredients, the name as registered with the PMRA.
2. **Common name:** A widely accepted name for an ingredient. An active ingredient in a TGAI requires the ISO common name. An active ingredient in MA or EP requires the name as it appears on the label of the source of active ingredient in the common name field.
3. **Chemical name:** The IUPAC or CAS chemical name.
4. **Supplier information:** For each ingredient, indicate the supplier's name and full address. For formulants if there are multiple suppliers for the same formulant name, select the checkbox indicating multiple suppliers, and enter the supplier name and address on the page entitled *Alternate Formulating Sites / Alternate Formulant Suppliers*. Provide the page number and row number of the ingredient to which the alternate supplier applies. If the SPS is for a TGAI, a supplier is not required as the TGAI is manufactured at the site listed in box H.
5. **Registration #:** The assigned pest control product registration number of the product providing the active ingredient or registered formulation preservative.
6. **Purity:** The guarantee of the source of active ingredient.
7. **CAS#:** The Chemistry Abstract Services number, when available.
8. **List#:** The PMRA list number for the formulant (see REG2007-04 or the most current version).
9. **% w/w:** The percent weight/weight of the ingredient in the formulation. The % w/w is calculated as: $100\% \times (\text{weight of the ingredient}) / (\text{total weight of the formulation})$.
10. **Purpose:** Identify active ingredients and impurities as such and indicate the purpose of intentionally added formulants. Ingredients that are added to protect the formulation from degradation by pests should be labelled as "formulation preservatives". Please refer to DIR2006-02 for more information on preservatives.
11. **% LCL:** The percent lower certified limit (see Section 7.1).
12. **% Nominal:** The calculated percent nominal concentration of an active ingredient.
13. **% UCL:** The percent upper certified limit (see Section 7.1).
14. **A) Guarantee statement:** This box is used to enter chemical name or accepted common name and form (e.g. acid or a salt) of the active ingredient as it appears on the label. If a formulation preservative is used, then the preservative statement as listed in the *Formulants Policy and Implementation Guidance Document* (DIR2006-02) is entered in this field.

B) Value: This is the numerical value of the guarantee as found on the label.

C) Units: The abbreviated units of the guarantee as expressed on the label.

D) LCL: For nominal guarantees, this is the calculated lower limit of the guarantee in the units of box 14C.

E) UCL: For nominal guarantees, this is the calculated upper limit of the guarantee in the units of box 14C.

- 15. Other info:** Documentation of any information related to the ingredient (e.g. other label claims, certified limits outside the standard range). If the product is a repack, the word “Repack” should be included in this box.

Appendix C Definitions and Codes for Formulation Types

Code	Name	Definition
DU	DUST OR POWDER	Dry material composed of active ingredient(s) and non-active ingredients. No requirement for further dilution before application. Insoluble in water and containing no wetting or dispersing agent(s). Material will float on water. Particle diameter usually less than 250 microns. Dusts or powders that contain wetting or dispersing agent(s) belong in WP code; if they are soluble, they belong in SP code.
DF	DRY FLOWABLE	See wettable granules (WG).
DV	DEVICE	Any article, instrument, apparatus or contrivance that, by itself or in conjunction with a control product, is used as a means to control pests.
EC	EMULSIFIABLE CONCENTRATE OR EMULSION	Clear solution of active ingredient(s) in solvent(s) with emulsifier(s) for dilution in water. Also cloudy dispersion of one liquid in another (oil in water, or water in oil) with active ingredient(s) in either phase to form a true emulsion. Includes most lotions.
GR	GRANULAR	Solid mixture of any dry, free-flowing water insoluble particles (usually larger than 500 microns and smaller than 2 mm in diameter) composed of active ingredient(s) and non-active ingredient(s). Sand-based products are included in this code.
IF	IMPREGNATED FABRIC	Fabric(s) or fibre(s) impregnated with active ingredient(s), such as repellent-impregnated jackets, repellent-impregnated towelettes, herbicide wick and pet collars, that employ a material impregnated with the active ingredient.
LI	LIQUID	Clear liquid composed of one or more active ingredient(s) (100% active), or with small amounts of production non-active ingredients, fire suppressants, flame inhibitors or indicators (97–100% active). Includes volatile products packaged as a liquid under pressure for release as a gas.
LO	LIVE ORGANISM	A life form capable of reproduction, e.g. bacteria, insects, fungi, mites, nematodes, virus and <i>rickettsia</i> -like organisms.
MS	MICROCAPSULE SUSPENSION	A suspension in which the solid particles consist of the active ingredient(s) within microcapsules that allow a slow release of the active ingredient(s).
PA	PASTE	A grease or ointment composed of active ingredient(s) and semi-solid non-active ingredient(s).
PE	PELLET	Dilute, preformed solid mixture of active ingredient(s) in the form of spheres, ovals or cylinders. Particles should have no dimension less than 2 mm.
PP	PRESSURIZED PRODUCT	May be a liquid, solid, gas, active ingredient(s) and non-active ingredient(s) or mixture thereof discharged by a propellant force of liquefied and/or non-liquefied compressed gas, usually from a disposable type of dispenser through a valve. Includes aerosols, pressurized sprays, pressurized foams and pressurized dusts. Does not include formulations dispersed by a pump mechanism.

Code	Name	Definition
PT	PARTICULATE	Dry active ingredient(s) and non-active ingredient(s) in the form of large particles, but not fitting the definitions of a granular or pellet formulation. Most products in this category are rodent or insect baits, formulated on sugar, whole or chopped grains, or other coarse material.
SG	SOLUBLE GRANULES	Solid mixture as in GR, except that the granules are soluble in water.
SN	SOLUTION	Clear liquid composed of active ingredient(s) (liquid or solid) dissolved in solvent(s).
SO	SOLID	Material in solid form composed of active ingredient(s) and/or non-active ingredient(s). Includes all solid materials formulated as blocks, flakes, cartridges, balls, crystals or other formulations that do not come within the definitions of other dry products.
SP	SOLUBLE POWDER	Dry material as in DU, except that it is soluble in water.
SR	SLOW-RELEASE GENERATOR	A combination of a solid base material (e.g. PVC resin) and a volatile liquid or solid toxicant(s) that slowly emits the toxicant(s) as a vapour, e.g. vapour strips.
SU	SUSPENSION	Cloudy liquid composed of solid active ingredient(s) suspended in a liquid phase for further dilution with similar liquids or ready-to-use. Includes aqueous suspensions, paints and flowable concentrates.
TA	TABLET	Solid active ingredient(s) or mixture of active ingredient(s) and non-active ingredient(s) preformed into a small block or sphere.
WD	WATER DISPERSIBLE GRANULES	See wettable granules (WG)
WG	WETTABLE GRANULES	A granular formulation, possibly in dry flowable form, that forms a suspension in water. Includes water dispersible granules—a granular formulation designed to be dispersed in water for application as a spray.
WP	WETTABLE POWDER	Dry material composed of active ingredient(s) and non-active ingredient(s), including wetting or dispersing agent(s), for dilution (usually in water) to form a suspension.

Appendix D List of Abbreviated Units

Abbreviation	Unit Description
BIU/kg	Billion International Units per Kilogram
BIU/L	Billion International Units per Litre
BIU/mg	Billion International Units per Milligram
CFU/g	Colony Forming Units per Gram of Dry Weight
CFU/ml	Colony Forming Units per Millilitre
g/L	grams per litre
g/m ²	grams per square metre
ITU/mg	International Toxic Units per Milligram
MVC/g	Million viable cells per gram
PIBs/g	Polyhedral Inclusion Bodies per gram

Example 1 TGAI With a Nominal Guarantee

In this example, the TGAI has a nominal guarantee. Based on the manufacturing process the TGAI has a yield of 90%. Impurities are listed with upper certified limits only.

Row 1	Trade:		% w/w 90.0	Purpose: active ingredient		
Common: TGAI ISO name				% LCL 87.3	% Nominal 90.0	% UCL 92.7
Chemical: TGAI chemical name				Active ingredient name as on the label		
		Reg#:		Value: 90.0		Units: %
		Purity:		LCL: 87.3		UCL: 92.7
		CAS#: [provide #]		Other Info:		
		List#:				
Row 2	Trade:		% w/w 7.1	Purpose: Impurity		
Common:				% LCL	% Nominal	% UCL 8.0
Chemical: Impurity A chemical name						
		Reg#:		Value:		Units:
		Purity:		LCL:		UCL:
		CAS#: [provide #]		Other Info:		
		List#:				
Row 3	Trade:		% w/w 2.9	Purpose: Impurity		
Common:				% LCL	% Nominal	% UCL 4.0
Chemical: Impurity B chemical name						
		Reg#:		Value:		Units:
		Purity:		LCL:		UCL:
		CAS#: [provide #]		Other Info:		
		List#:				
Row 4	Trade:		% w/w 0	Purpose: Impurity		
Common:				% LCL	% Nominal	% UCL 0.1
Chemical: Impurity C chemical name						
		Reg#:		Value:		Units:
		Purity:		LCL:		UCL:
		CAS#: [provide #]		Other Info:		
		List#:				

Example 2 TGAI with a Minimum Guarantee

In this example, the TGAI has a minimum guarantee. Based on the manufacturing process the TGAI has a yield of 97%. Impurities are listed with upper certified limits only.

Row 1	Trade:			% w/w	Purpose: active ingredient			
Common: TGAI ISO name					97.0	% LCL	% Nominal	% UCL
Chemical: TGAI Chemical Name						Active ingredient name as on the label		
		Reg#:			Value: 97.0	Units: %		
		Purity:			LCL:	UCL:		
		CAS#: [provide #]		Other Info:				
		List#:						
Row 2	Trade:			% w/w	Purpose: Impurity			
Common:					1.0	% LCL	% Nominal	% UCL
Chemical: Impurity A chemical name								
		Reg#:			Value:	Units:		
		Purity:			LCL:	UCL:		
		CAS#: [provide #]		Other Info:				
		List#:						
Row 3	Trade:			% w/w	Purpose: Impurity			
Common:					1.5	% LCL	% Nominal	% UCL
Chemical: Impurity B chemical name								
		Reg#:			Value:	Units:		
		Purity:			LCL:	UCL:		
		CAS#: [provide #]		Other Info:				
		List#:						
Row 4	Trade:			% w/w	Purpose: Impurity			
Common:					0.5	% LCL	% Nominal	% UCL
Chemical: Impurity C chemical name								
		Reg#:			Value:	Units:		
		Purity:			LCL:	UCL:		
		CAS#: [provide #]		Other Info:				
		List#:						

Example 3 EP with a minimum Guarantee in grams per Litre

Glyphosate is supplied from the technical product as an acid with a minimum guarantee in this example. However, in the EP, the form of the glyphosate is a salt and is reflected in the guarantee statement (box 14A).

Step 1- The calculated value of the guarantee is determined as follows:

$$(\% \text{ w/w}) \times (\% \text{ purity}) \times 100\% = \text{guarantee in } \%$$

$$(0.21) \times (0.5) \times 100\% = 10.5\% \text{ into the } \% \text{ LCL (box 11) since the guarantee is a minimum}$$

Step 2- The guarantee on the label is in grams per litre and is calculated as follows, using a specific gravity of 1.2:

$$(\% \text{ calculated value of the guarantee}) \times (\text{specific gravity}) \times (1000 \text{ g/L}) = \text{guarantee in g/L}$$

$$(0.105) \times (1.2) \times (1000 \text{ g/L}) = 126\text{g/L}$$

The value represented on the label is 126 g/L and it is entered into boxes 14B (value) and 14C (units). Since the source of the active ingredient is a minimum, the guarantee must also be a minimum, and there are no lower and upper certified limits in boxes 14D and 14E.

Row 1	Trade: Registered name of the product containing the active ingredient brand name		% w/w 21	Purpose: Active ingredient		
Common: Glyphosate acid		% LCL 10.5		% Nominal	% UCL	
Chemical: N-(phosphonomethyl) glycine		Glyphosate present as the isopropylamine salt				
	[provide supplier name]	Reg#: [provide #]		Value: 126	Units: g/L	
	[provide supplier address]	Purity: 50%		LCL:	UCL:	
		CAS#: [provide #]	Other Info:			
		List#:				
Row 2	Trade:		% w/w 9.0	Purpose: Reactant		
Common: Isopropylamine		% LCL 8.55		% Nominal	% UCL 9.45	
Chemical:						
	[provide supplier name]	Reg#:		Value:	Units:	
	[provide supplier address]	Purity:		LCL:	UCL:	
		CAS#: 75-31-0	Other Info:			
		List#: 3				
Row 3	Trade: Formulant B trade name		% w/w 70.0	Purpose: Solvent		
Common:		% LCL 67.9		% Nominal	% UCL 72.1	
Chemical:						
	[provide supplier name]	Reg#:		Value:	Units:	
	[provide supplier address]	Purity:		LCL:	UCL:	
		CAS#:	Other Info:			
		List#:				

Example 4 EP With a Nominal Guarantee in Grams per Litre

In this example, the active ingredient is expressed in grams per Litre. The specific gravity used in the calculation is 1.20. Also note that this example illustrates that the label guarantee must list the active ingredient chemical name and form, in this case as an dimethylamine salt.

Step 1: The calculated value of the guarantee is determined as follows:

$$(\% \text{ w/w}) \times (\% \text{ purity}) \times 100\% = \text{guarantee in } \%$$

$$(0.305) \times (0.985) \times 100\% = 30\% \text{ into the } \% \text{ Nominal (box 12) since the guarantee is a nominal}$$

The percent lower and upper certified limits are calculated as:

$$\% \text{ LCL (box 11)} = (30) - (30 \times 0.03) = 29.1\%$$

$$\% \text{ UCL (box 13)} = (30) + (30 \times 0.03) = 30.9\%$$

Step 2: The guarantee on the label is in grams per litre, so using a specific gravity of 1.2 and is calculated as :

$$(\% \text{ calculated value of the guarantee}) \times (\text{specific gravity}) \times (1000 \text{ g/L}) = \text{guarantee in g/L}$$

$$(0.30) \times (1.2) \times (1000 \text{ g/L}) = 360 \text{ g/L}$$

The LCL (box 14D) and the UCL (box 14E) calculated in the guarantee units is:

$$\text{LCL: } (0.291) \times (1.2) \times (1000 \text{ g/L}) = 349.2 \text{ g/L}$$

$$\text{UCL: } (0.309) \times (1.2) \times (1000 \text{ g/L}) = 370.8 \text{ g/L}$$

Row 1	Trade: 2,4-D Technical		% w/w 30.5	Purpose: Active ingredient		
Common: 2,4-D				% LCL	% Nominal	% UCL
Chemical: 2,4-Dichlorophenoxy acetic acid				2,4-D present as dimethylamine salt		
	[provide supplier name]	Reg#: [provide #]		Value: 360		Units: g/L
	[provide supplier address]	Purity: 98.5%		LCL: 349.2		UCL: 370.8
		CAS#: 94-75-7	Other Info:			
		List#:				
Row 2	Trade:		% w/w 6.5	Purpose: Reactant		
Common:				% LCL	% Nominal	% UCL
Chemical: Dimethylamine						
	[provide supplier name]	Reg#:		Value:		Units:
	[provide supplier address]	Purity:		LCL:		UCL:
		CAS#: 124-40-3	Other Info:			
		List#: 3				
Row 3	Trade:		% w/w 63.0	Purpose: Diluent		
Common: Formulant A				% LCL	% Nominal	% UCL
Chemical:						
	[provide supplier name]	Reg#:		Value:		Units:
	[provide supplier address]	Purity:		LCL:		UCL:
		CAS#: [provide #]	Other Info:			
		List#:				

Example 5 End-use Product Containing a MA Consisting of Several Active Ingredients

The MA consists of three active ingredients; the first and second having a minimum guarantee and the third active ingredient having a nominal guarantee.

Row 1	Trade: MA registered name		% w/w 30.00	Purpose: Active ingredient		
Common: Active ingredient #1 name as on MA source label				% LCL	% Nominal	% UCL
Chemical: Active #1 chemical name				6.15		
	[provide supplier name]	Reg#: [provide #]		Value: 6.15		Units: %
	[provide supplier address]	Purity: 20.5%		LCL:		UCL:
		CAS#: [provide #]	Other Info:			
		List#:				
Row 2	Trade: MA registered name		% w/w	Purpose:		
Common: Active ingredient #2 name as on MA source label				% LCL	% Nominal	% UCL
Chemical: Active ingredient #2 chemical name				2.25		
	[provide supplier name]	Reg#:		Value:		Units: %
	[provide supplier address]	Purity: 7.5%		LCL:		UCL:
		CAS#: [provide #]	Other Info:			
		List#:				
Row 3	Trade: MA registered name		% w/w	Purpose: Active ingredient		
Common: Active ingredient #3 name as on MA source label				% LCL	% Nominal	% UCL
Chemical: Active ingredient #3 chemical name				8.55	9.00	9.45
	[provide supplier name]	Reg#:		Value: 9.00		Units: %
	[provide supplier address]	Purity: 30%		LCL: 8.55		UCL: 9.45
		CAS#: [provide #]	Other Info:			
		List#:				
Row 4	Trade: Formulant A brand name		% w/w 70.00	Purpose: Solvent		
Common:				% LCL	% Nominal	% UCL
Chemical:				67.9		
	[provide supplier name]	Reg#:		Value:		Units:
	[provide supplier address]	Purity:		LCL:		UCL:
		CAS#:	Other Info:			
		List#:				

Example 6 Live Organism Guaranteed on the SPSF

Row 1	Trade: Registered name of the product containing the active ingredient		% w/w 30	Purpose: Active ingredient		
Common: <i>Agrobacterium radiobacter</i> strain PMRA23				% LCL 29.1	% Nominal 30	% UCL 30.9
Chemical:				<i>Agrobacterium radiobacter</i>		
	[provide supplier name]	Reg#: [provide #]		Value: 2.5	Units: CFU/g	
	[provide supplier address]	Purity: 100%		LCL: 1.5	UCL: 3.25	
		CAS#:	Other Info: Guarantee is by assay and cannot be calculated			
		List#:				
Row 2	Trade:		% w/w 45	Purpose: Solvent		
Common:				% LCL 43.65	% Nominal	% UCL 46.35
Chemical: Formulant A						
	[provide supplier name]	Reg#:		Value:	Units:	
	[provide supplier address]	Purity:		LCL:	UCL:	
		CAS#: [provide #]	Other Info:			
		List#:				
Row 3	Trade:		% w/w 25	Purpose: Solvent		
Common:				% LCL 24.25	% Nominal	% UCL 25.75
Chemical: Formulant B						
	[provide supplier name]	Reg#:		Value:	Units:	
	[provide supplier address]	Purity:		LCL:	UCL:	
		CAS#: [provide #]	Other Info:			
		List#:				

Or if there are no separate formulants for the live organism:

Row 1	Trade: Registered name of the product containing the active ingredient		% w/w 100	Purpose: Active ingredient		
Common: <i>Bacillus thuringiensis</i> Strain PMRA1276 including inactive fermentation solids				% LCL 97	% Nominal 100	% UCL 100
Chemical:				<i>Bacillus thuringiensis</i> strain PMRA1276		
	[provide supplier name]	Reg#: [provide #]		Value: 12000	Units: ITU/mg	
	[provide supplier address]	Purity: 100%		LCL: 10200	UCL: 13800	
		CAS#:	Other Info: Guarantee is by assay and cannot be calculated			
		List#:				

Example 7 Impregnated Materials

A DEET impregnated fabric is to be represented on a SPSF as the formulation of the solution excluding the towelette, summing to 100%. The guarantee is also expressed in terms of the solution excluding the towelette. The % w/w of the fabric in the product formulation is added as a separate entry on the SPSF as shown on the example below.

Row 1	Trade: ACME DEET Technical		% w/w 15.0	Purpose: Active ingredient		
Common: DEET plus related active toluamides				% LCL	% Nominal	% UCL
Chemical: N,N-Diethyl-m-toluamide, plus N,N-Diethyl-o-toluamide and N,N-Diethyl-p-toluamide				DEET plus related active toluamides		
	[provide supplier name]	Reg#: [provide #]		Value: 14.7	Units: %	
	[provide supplier address]	Purity: 98.25%		LCL: 13.97	UCL: 15.44	
		CAS#: [provide #]	Other Info:			
		List#:	x g of DEET per towelette			
Row 2	Trade: Solvent trade name		% w/w 85.0	Purpose: Solvent		
Common:				% LCL	% Nominal	% UCL
Chemical:						
	[provide supplier name]	Reg#:		Value:	Units:	
	[provide supplier address]	Purity:		LCL:	UCL:	
		CAS#:	Other Info:			
		List#:				
Row 3	Trade:		% w/w	Purpose: Application vehicle		
Common: [towelette type]				% LCL	% Nominal	% UCL
Chemical:						
	[provide supplier name]	Reg#:		Value:	Units:	
	[provide supplier address]	Purity:		LCL:	UCL:	
		CAS#: [provide #]	Other Info: % w/w of the towelette in the product = 30.5%			
		List#:				

Example 8 Representation of a Registered Formulation Preservative

In this example, the trade name antimicrobial is a registered active ingredient and is a complex mixture. The guarantee in this case is a nominal guarantee and each active ingredient in the mixture is listed separately.

Row 1	Trade: Registered name of the product containing the active ingredient		% w/w	Purpose: Active ingredient		
Common: Name of the active ingredient as listed on the source label			30.0	% LCL 26.2	% Nominal 27.0	% UCL 27.8
Chemical: Chemical name of the active ingredient				Active ingredient name as on the label		
	[provide supplier name]	Reg#: [provide #]		Value: 27.0	Units: %	
	[provide supplier address]	Purity: 90%		LCL: 26.2	UCL: 27.8	
		CAS#:	Other Info:			
		List#:				
Row 2	Trade: Trade name microbiocide		% w/w	Purpose: Formulation preservative		
Common:			1.0	% LCL 0.032	% Nominal 0.035	% UCL 0.039
Chemical: 2-methyl-4-isothiazolin-3-one				Contains 2-methyl-4-isothiazolin-3-one as a preservative		
	[provide supplier name]	Reg#: [provide #]		Value: 0.035	Units: %	
	[provide supplier address]	Purity: 3.5000%		LCL: 0.032	UCL: 0.039	
		CAS#: 2682-20-4	Other Info:			
		List#:				
Row 3	Trade: Trade name microbiocide		% w/w	Purpose: Formulation preservative		
Common:				% LCL 0.095	% Nominal 0.105	% UCL 0.115
Chemical: 5-chloro-2-methyl-4-isothiazolin-3-one				Contains 5-chloro-2-methyl-4-isothiazolin-3-one as a preservative		
		Reg#:		Value: 0.105	Units: %	
		Purity: 10.500%		LCL: 0.095	UCL: 0.115	
		CAS#: 26172-55-4	Other Info:			
		List#:				
Row 4	Trade:		% w/w	Purpose: Diluent		
Common: Water			69.0	% LCL 66.93	% Nominal	% UCL 71.07
Chemical:						
	[provide supplier name]	Reg#:		Value:	Units:	
	[provide supplier address]	Purity:		LCL:	UCL:	
		CAS#: 7732-18-5	Other Info:			
		List#: 4A				

Example 9 Representation of an Unregistered Formulation Preservative

In this example, the product contains propionic acid as a formulation preservative. Since the source of active ingredient is not registered, the preservative is represented with a minimum guarantee.

Row 1	Trade: Registered name of the product containing the active ingredient brand name		% w/w	Purpose: Active ingredient		
Common:			45	% LCL	% Nominal	% UCL
				6.41	6.75	7.09
Chemical: [active ingredient chemical name]				Active ingredient name as on the label		
	[provide supplier name]	Reg#: [provide #]		Value: 6.75	Units: %	
	[provide supplier address]	Purity: 15%		LCL: 6.41	UCL: 7.09	
		CAS#: [provide #]	Other Info:			
		List#:				
Row 2	Trade:		% w/w	Purpose: Formulation preservative		
Common:			0.80	% LCL	% Nominal	% UCL
				0.80		
Chemical: Propionic acid				Contains propionic acid as a preservative		
	[provide supplier name]	Reg#:		Value: 0.80	Units: %	
	[provide supplier address]	Purity: 100%		LCL:	UCL:	
		CAS#: 79-09-4	Other Info:			
		List#:				
Row 3	Trade: Formaldehyde aqueous solution		% w/w	Purpose: Formulation preservative		
Common: Formaldehyde			2	% LCL	% Nominal	% UCL
				0.60		
Chemical:				Contains Formaldehyde as a preservative		
	[provide supplier name]	Reg#:		Value: 0.60	Units: %	
	[provide supplier address]	Purity: 30%		LCL:	UCL:	
		CAS#: 50-00-0	Other Info:			
		List#:				
Row 4	Trade:		% w/w	Purpose: Solvent		
Common:			52.2	% LCL	% Nominal	% UCL
				50.63		53.77
Chemical: Formulant A chemical name						
	[provide supplier name]	Reg#:		Value:	Units:	
	[provide supplier address]	Purity:		LCL:	UCL:	
		CAS#: [provide #]	Other Info:			
		List#:				

Example 10 Representation of Alternate Formulants

When formulants are used interchangeably in a formulation, they should be listed sequentially on the SPSF. In addition to the trade/ chemical name, list#, CAS#, and supplier, the first formulant should specify the % w/w, certified limits, and purpose in the formulation. For the subsequent formulants that are used interchangeably, only the trade/ chemical name, list#, CAS#, and supplier need to be listed. The % w/w, certified limits and purpose boxes are left blank as the values must be identical for all the interchangeable formulants. In the example below, formulant A and B are used interchangeably in the formulation.

Row 1	Trade: Registered name of the product containing the active ingredient brand name		% w/w 90.00	Purpose: Active ingredient		
Common: [provide the name of active ingredient as it appears on the source label]				% LCL	% Nominal	% UCL
Chemical: [provide chemical name]				[active ingredient name as on the label]		
	[provide supplier name]	Reg#: [provide #]		Value: 45		Units: %
	[provide supplier address]	Purity: 50%		LCL: 43.65		UCL: 46.45
		CAS#: [provide #]	Other Info:			
		List#:				
Row 2	Trade: Formulant A brand name		% w/w 9.0	Purpose: Solvent		
Common:				% LCL	% Nominal	% UCL
Chemical:						
	[provide supplier name]	Reg#:		Value:		Units:
	[provide supplier address]	Purity:		LCL:		UCL:
		CAS#:	Other Info:			
		List#:				
Row 3	Trade:		% w/w	Purpose:		
Common:				% LCL	% Nominal	% UCL
Chemical: Formulant B chemical name						
	[provide supplier name]	Reg#:		Value:		Units:
	[provide supplier address]	Purity:		LCL:		UCL:
		CAS#: [provide #]	Other Info:			
		List#:				
Row 4	Trade:		% w/w 1.0	Purpose: Surfactant		
Common:				% LCL	% Nominal	% UCL
Chemical: Formulant C chemical name						
	[provide supplier name]	Reg#:		Value:		Units:
	[provide supplier address]	Purity:		LCL:		UCL:
		CAS#: [provide #]	Other Info:			
		List#:				

Example 11 Representation of a Repackaged or Relabelled Product

When a product consists of 100% of an existing product **registered with the PMRA** it is considered a repackaged product. The repackaged product has an identical guarantee to the product it is repacking. In this example there is a formulation preservative in the product. As shown in the example below, the detailed formulation ingredients do not have to be listed:

Row 1	Trade: Acme Pesticide		% w/w 100	Purpose: Active ingredient		
Common:				% LCL	% Nominal	% UCL
Chemical:				[Active ingredient name as on the label]		
	[provide supplier name]	Reg#: [provide #]		Value: 85	Units: %	
	[provide supplier address]	Purity:		LCL:	UCL:	
		CAS#:	Other Info:			
		List#:	Repack			
Row: 2	Trade:		% w/w	Purpose: Preservative		
Common:				% LCL	% Nominal	% UCL
Chemical:				[Preservative statement as on the label]		
		Reg#:		Value: 0.05	Units: %	
		Purity		LCL:	UCL:	
		CAS#:	Other Info:			
		List#:				