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## **NEW SOURCE GUIDANCE**

**GUIDELINES CONCERNING THE REQUIREMENTS FOR  
TECHNICAL SPECIFICATIONS OF ACTIVE INGREDIENTS  
IN NON-AGRICULTURAL PESTICIDE PRODUCTS**

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## **INTRODUCTION**

Non-agricultural pesticides are presently regulated in Great Britain under The Control of Pesticides Regulations (COPR) 1986, as amended, and require approval before they can be sold, supplied, stored, used or advertised. The term non-agricultural pesticide covers the following product types:

- wood preservatives
- wood treatment products
- biocidal paints
- surface biocides
- rodenticides
- insecticides/acaricides for use in public hygiene situations.
- avicides and bird stupefying baits
- antifouling products

The following guidance document explains the regulatory approach to the source of the technical active ingredient used in approved products and the actions required of approval holders when making changes to the source.

It should be noted that the Biocides & Pesticides Unit (BPU) only recognises the SITE OF MANUFACTURE of an active ingredient.

## **NEW GUIDANCE DOCUMENT**

The purpose of this guidance document is to provide advice to applicants on the actions to take when considering making changes to the source of an active ingredient, and to amplify what data may be required. This guide highlights the most common scenarios affecting sources but it is not necessarily exhaustive.

For the purposes of this document the 'source' of an active ingredient can be defined as comprising the technical specification of the active material (which is dependent on the method of manufacture and/or site of manufacture) and the supporting data package.

A technical specification of an active ingredient consists of the following:

(a) the minimum and maximum content (expressed as % w/w) of the pure active ingredient (the nominal target content for the pure active substance must be within acceptable tolerance limits (in line with FAO/WHO guidelines)) and;

(b) the identity of and the maximum levels of all impurities (expressed as % w/w) present at or greater than 0.1 % w/w of the total content unless there is a specific requirement to identify impurities less than 0.1 % w/w i.e. impurities of toxicological or ecotoxicological concern.

## COMMON SCENARIOS AFFECTING SOURCES

### 1. A new source

To register an application to become a recognised source it is necessary to complete BPU's [new source proforma](#) (with appropriate supporting documentation) and submit the application to BPU for consideration.

### 2. Change in active ingredient specification.

This probably involves changes in active ingredient purity or impurity profile. These changes have the potential to invalidate any previously conducted risk assessments, and most likely require a new application to be considered.

Any changes that clearly would not invalidate a previous risk assessment, for example if the minimum purity is considered to only increase slightly from the original purity of the same active from the same manufacturer (and there are no additional impurities), can be notified to BPU in a letter with full justification as to why the new specification does not invalidate a previous risk assessment.

### 3. Change in manufacturer and/or manufacturing site.

If the active ingredient is obtained from a new manufacturer or manufacturing site (one not recognised by BPU) it may be the case that the existing data package still applies (i.e. no change in ai specification). Nevertheless BPU would still require proof that this is the case and therefore it would be necessary to complete BPU's [new source proforma](#).

### 4. Changes in the method of manufacture.

If the change in the method of manufacture does not result in a change in the active ingredient specification then notification of the change in method of manufacture is required by letter detailing the changes (additional data may still be requested). If the specification does change then refer to (2).

### 5. Changes in methods of analysis.

With improvements in analytical techniques there may be apparent changes in active substance specification. However provided the method of manufacture, raw materials and any other aspect of the production of the active substance have not changed, there should be no impact on the risk assessment. Improvements in the specification should be notified to BPU at the earliest opportunity.

**6. Where an up to date technical specification is more detailed than one submitted several years ago** (e.g. where additional impurities have been identified due to refined methods of analysis).

In this case applicants should clarify that the material has not actually changed. The risk assessment carried out initially will have been based on the properties of the

technical active ingredient, including all impurities, whether identified or not. Therefore a new risk assessment may not be necessary. However, if the newly identified impurity is known to have properties, or be subject to legislation, which may impact on the use of the products containing it, then a further more detailed assessment of this aspect may be needed. We presume that the information we hold is up-to-date, if technical specifications do change then BPU should receive a copy of the up-to-date technical specification a.s.a.p.

## **7. Changes in data ownership.**

In this case providing there are no changes to the technical specification, manufacturer, and/or manufacturing site then the change of ownership can be notified to BPU by letter confirming that the technical specification will not change. If there are changes to technical specification then refer to (2).

Applicants are advised that if they are unclear as to what action is required then they should contact BPU for clarification

## **BPU PROCEDURE FOR EVALUATION OF APPLICATIONS TO BECOME A RECOGNISED SOURCE**

When an application to become a recognised source is submitted (this may be associated with a product, but doesn't have to be), the applicant's data are evaluated as a discrete package of information. This includes examining the quantification data of the material in order to confirm the purity/impurity profile of the technical material. The methods of analysis are evaluated to determine whether the methods are robust and suitable for the determination of the active ingredient, its impurities and, where appropriate, any additives, and also whether any potential anomalies may be explained by method parameters.

With regard to consideration of how a change in technical specification might affect the risk assessment, BPU will compare the new specification against the currently recognised specification(s). The content of the active ingredient is scrutinised closely to determine whether an increase (or decrease) in purity will have implications for the toxicity of the compound and hence for the risk assessment. This determines whether any further toxicological or ecotoxicological data may be required so that the hazards and risks associated with the new source of active ingredient are fully evaluated.

Similarly, impurities in the new specification are also assessed for both their toxicological and ecotoxicological properties and whether an increase (or decrease) in these impurities will result in the new specification invalidating the previous risk assessment for an approved product. Should this be the case then further toxicological or ecotoxicological data may be required accordingly.

There is no requirement for a new source to demonstrate equal or greater purity than the currently recognised source, simply that all impurities, especially those that may not be present in the currently recognised source, are identified and quantified. For this reason no limits for comparison are set.

The issue of identity is not appropriate and it is extremely unlikely that any competing manufacturer could demonstrate identity to another manufacturer (BPU also consider it unlikely the manufacturer could demonstrate identity over repeated batches). If there were concerns over toxicologically significant impurities there would be grounds for withdrawal of another manufacturer's products.

## **DATA REQUIREMENTS TO BECOME A RECOGNISED SOURCE**

Applicants are required to complete as fully as possible the [new source proforma](#) (this proforma can be found on our website, see section entitled "further information"). In addition the complete dossier of all data used to complete this proforma is required. This should include all calculations, raw data (spectra, traces etc.), and end results. The following is a list of the data we require in order to recognise a source:

For the active substance:

- BSI name, IUPAC name, synonyms, CAS number, EC or ELINCS or EINECS number, structural formula.

For the technical active material:

- Synonyms
- Site of manufacture (Company name and address)
- Technical specification. This should include the certified manufacturing limits in terms of minimum/maximum content of the active ingredient and isomers (if appropriate), and maximum contents of all impurities and additives (if appropriate). All impurities and additives should be identified in terms of their IUPAC nomenclature and structural formula. Only impurities and additives of a content >0.1% w/w need be identified unless there are suspected impurities at a lower level that may be of cause for concern.
- Five-batch analysis of the technical material. This is used to demonstrate that the active material, isomers, impurities and additives are within the certified manufacturing limits detailed by the applicant. All components of each batch should be quantified, identified and reported. For the active component the range (minimum to maximum purity) demonstrated by the five batch analysis should also be reported. It is a requirement for the five batch analysis to be conducted in compliance with the principles of Good Laboratory Practice (GLP).
- Full details of the analytical method\* used for the determination of the active substance and any isomers in the technical material (including all raw data, traces, calculations etc.)
- Full details of the analytical methods\* used for the determination of impurities and additives in the technical material (including all raw data, traces, calculations etc.)

\*Only validated analytical methods will be acceptable. Appropriate validation data must be submitted. For further guidance regarding validation of analytical methods please refer to the guidance document entitled “Guidelines for Validation of analytical methods for non-agricultural pesticide active ingredients and products” (this document is available on our website, see section entitled “further information”).

## **GENERAL POINTS**

### **Storage and disclosure of source data**

BPU maintains a database, which holds all relevant physico-chemical information regarding sources of active ingredients. All technical information relating to that source is held confidentially by BPU. With regard to approvals documentation, manufacturers can be assured that only their name, address and minimum purity of the technical active ingredient will be detailed on the schedule and therefore disclosed to approval holders. All other information relating to the active such as, for example, manufacturing route, and impurity profile not affecting the classification of a non-agricultural pesticide product will remain confidential to the manufacturer and will not be disclosed to Approval holders.

### **Acceptability of an application to become a recognised source**

Applicants will be informed by formal letter whether or not their application to become a recognised source has been deemed acceptable from the information they have provided.

### **Cost**

The current fee for the evaluation of an application to become a recognised source is £500.

### **Standards of service**

From receipt of the fee BPU would expect to complete the evaluation and recognition of a new source application within 70 working days. If further information is required, this will be requested. The application will be placed on hold until the outstanding information has been received. The length of time an application is placed on hold does not form part of the 70 working day service standard.

## **Further information**

Website; <http://www.hse.gov.uk/pesticides/application/index.htm>

The following related documents are available on BPU's website:

- Guidelines for validation of analytical methods for non-agricultural pesticide active ingredients and products.
- New Source proforma
- Guidance on the generation and submission of chemistry data in support of the approval of non-agricultural pesticides.

## **REFERENCES** (relevant to the production of this guidance document)

*The Control of Pesticides Regulations 1986*. Statutory Instrument 1986/1510 is available from the Stationery Office. This was amended in 1997 by Statutory Instrument 1997/188 (which is also available from the Stationery Office).

PSD Application Handbook Section E15 and B2

Pesticides Newsletter Issue Number 32 September 1996

BPU Guidelines for Validation of Analytical Methods for Non-Agricultural Pesticide Active Ingredients & Products

Manual on Development and Use of FAO Specifications for Plant Protection Products, Fifth Edition, January 1999

## GLOSSARY

<b>Active ingredient</b>	The component of a product that fits it for use as a pesticide.
<b>Approval</b>	An approval given jointly by Ministers under Regulation 5 of The Control of Pesticides Regulations 1986 (as amended) (COPR).
<b>BPU</b>	The Biocides and Pesticides Unit of HSE that deals with the approval of non-agricultural pesticides.
<b>Batch</b>	A defined quantity of material produced in a single series of operations.
<b>Data package</b>	The complete dossier of physico-chemical data used to address the end-points required for a new source application.
<b>Evaluation</b>	A written assessment of study reports or other data examined in the course of an appraisal by the Registration Authority.
<b>5 batch analysis</b>	<p>Determining the identity of a new source is not feasible since by nature of the different manufacturing processes involved and different sources of starting materials there will always be variation between different batches of the same manufacturer let alone different manufacturers. Batch variability is considered through the provision of a 5-batch analysis that allows a statistically more accurate specification to be detailed.</p> <p>A five-batch analysis is analysis for active ingredient, isomer, impurity, and additive content carried out on five separate batches of production material. The five-batch analysis provides evidence that the material conforms to the technical specification i.e. it is within certified manufacturing limits.</p>
<b>Non-Agricultural pesticide</b>	Non-agricultural pesticides are pesticides normally used in domestic, commercial, industrial situations, on boats or in aquaculture and include wood preservatives, surface biocides, antifouling products, rodenticides and insecticides/acaricides for use in public hygiene situations.
<b>Pesticide</b>	As defined in The Food and Environment Protection Act 1985 (FEPA) (Part III., section 16 (15) + (16)) and COPR (section 3, (1)).
<b>Pesticides Newsletter</b>	This is a quarterly newsletter on non-agricultural pesticides issues produced by BPU. Copies of the Newsletter can be downloaded from BPU's website
<b>Technical active ingredient</b>	The manufactured material that contains the active ingredient and any impurities.

## ABBREVIATIONS

<b>BSI</b>	British Standards Institute
<b>CAS</b>	Chemical Abstracts Service
<b>COPR</b>	Control of Pesticides Regulations
<b>EC</b>	European Commission
<b>EINECS</b>	European Inventory of Existing Chemical Substances
<b>ELINCS</b>	European List of Notified Chemical Substances
<b>FAO</b>	Food & Agriculture Organisation
<b>IUPAC</b>	International Union of Pure and Applied Chemistry
<b>WHO</b>	World Health Organisation
<b>w/w</b>	Weight for weight