in focus

Developing an inert petition strategy

Five key considerations

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Inert ingredients are just as important in product formulations as their active counterparts. However, they are not always given the focus they deserve. As the US Environmental Protection Agency (EPA) must approve the inert ingredient first, the petition can become a limiting factor in the pesticide registration process. Therefore, it is important for registrants to identify inert ingredients early, understand their approval status, and consider the impacts of an inert petition on any anticipated regulatory timeline. In this paper, Abigail Wacek outlines the five key elements companies need to consider when developing an inert petition strategy.

Pesticide products are highly regulated in the United States. As companies develop products and assess the regulatory requirements associated with getting their product to market, the focus tends to be on the regulatory landscape associated with the active ingredient in the product as this imparts the pesticidal activity and is critical to the formulation. However, the inert ingredients may be equally important and can trigger significant regulatory challenges as companies seek to obtain regulatory approval of their formulated product. These challenges should be considered when developing products and choosing ingredients in the formulation.

What are inert ingredients?

Inert ingredients are those components that are intentionally added to pesticide formulations but are not intended to impart pesticidal activity. Emulsifiers, stabilizers, surfactants, diluents, colorants, and fragrances are all examples of inert ingredients. Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA requires that inert ingredients are approved for use in pesticide products before it will approve those product formulations for sale and distribution in the US. Therefore, the inert approval process may be critical for the successful registration of new or amended pesticide products.

EPA classifies inert ingredients as intended for food use, non-food use, and/or as fragrances. There is no *de minimus* value under which an inert ingredient does not require approval. Additionally, while approval by another US Federal Agency, such as the Food and Drug Administration (FDA), may be helpful to EPA as the Agency assesses an inert petition, that approval does not convey approval by the EPA.

EPA must conduct an individual assessment of each ingredient.

The inert petition process

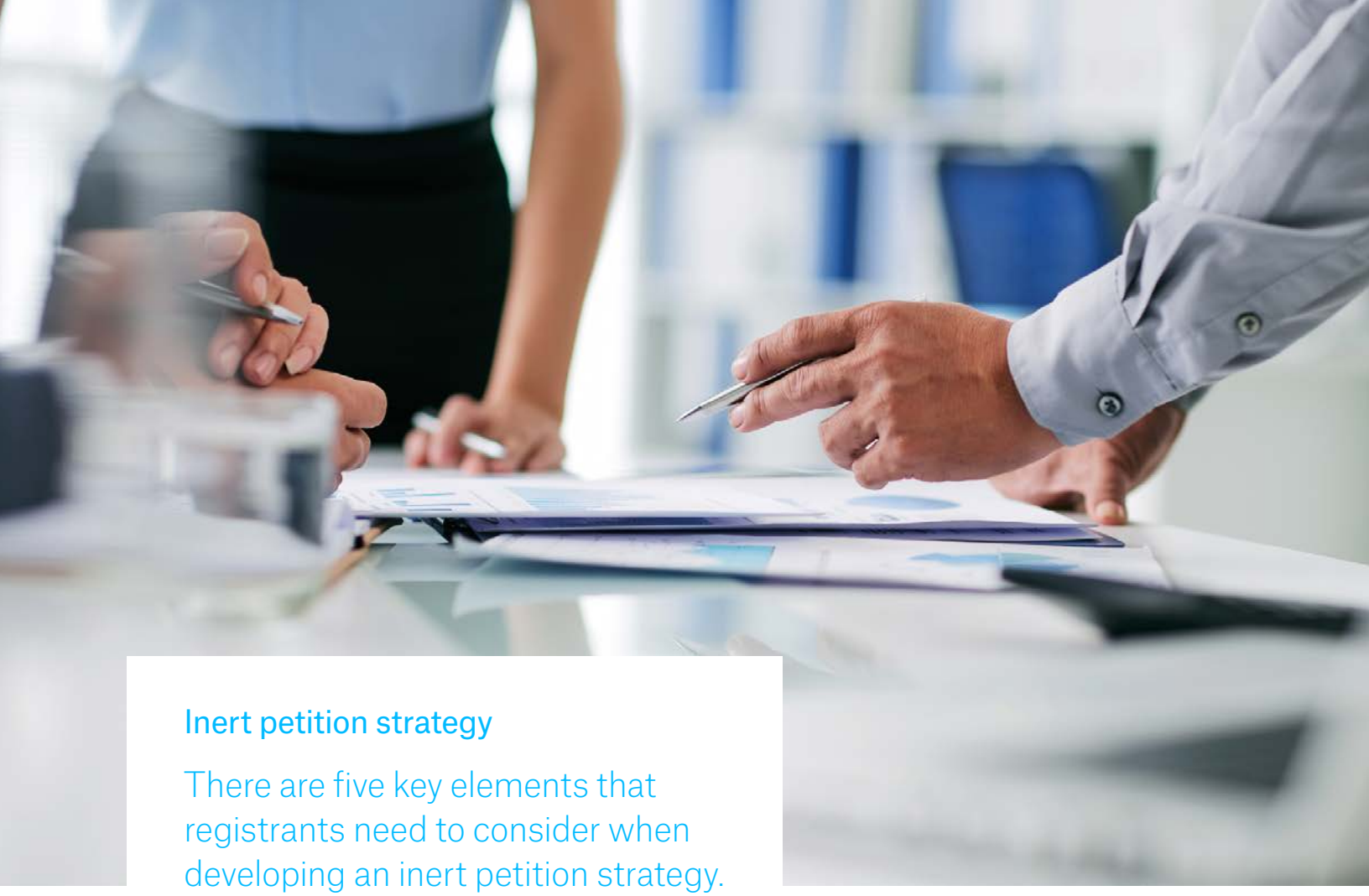
Producers must petition EPA's Office of Pesticide Programs, Registration Division, Chemistry, Inerts and Toxicology Assessment Branch (CITAB) for the approval of any new inert ingredient, or to change the use of an inert, for example, from non-food use to food use.

The inert petition must provide a summary of the request as well as data, information, and arguments submitted or cited in support of the submission, and a justification for why the submitted data is appropriate and sufficient for EPA to make a safety finding. The list of data which EPA may require is extensive and includes information on the physical and chemical properties of the ingredient as well as data on toxicity, human exposure, environmental fate and effects, and ecotoxicity.

Only once the EPA has reviewed and approved the inert ingredient can a company apply to have that ingredient included as part of a pesticide formulation. Inert ingredients must be submitted to EPA as part of a new or amended pesticide formulation. Applicants must provide the inert ingredient name, CAS#, supplier, and percent by weight in the formulation. If the inert ingredient is part of a mixture, the registrant or inert supplier must also provide the full composition of that trade name inert mixture. EPA will not review a pesticide application with any unapproved inert ingredients, even if an applicant has an inert petition pending; however registrants can submit pesticide applications concurrently with inert petitions. The Agency will extend the review date for any pesticide applications as needed to ensure that the inert is approved first.

The inert petition process can be costly and time intensive. Because EPA must approve the inert ingredient first, the petition can also be a limiting factor in the pesticide registration process.

It is important for registrants to identify inert ingredients early, understand their approval status, and consider the impacts of an inert petition on any anticipated regulatory timeline.



Inert petition strategy

There are five key elements that registrants need to consider when developing an inert petition strategy.

1 Do I need inert approval? InertFinder and the Trade Name Database

The first consideration is whether approval is required at all. EPA keeps an online database with the approval status of all inert ingredients. EPA's InertFinder may be searched by chemical name or Chemical Abstract Service (CAS) number. Results are returned along with the type of approval: non-food use, food use, or as a fragrance. Food use ingredients may have additional use or rate limitations that are also included on InertFinder. The database is known to have holes and some chemicals may have multiple CAS numbers, not all of which are included in the database. Questions may be directed to CITAB via email.

If an ingredient is not approved, then applicants may wish to consider reformulation. EPA provides lists of all inert ingredients categorized by food and non-food use, non-food use only, and fragrance use. The database will not include information as to specific types of ingredients, for example an applicant cannot search for surfactants only, but an applicant can use these lists to search for alternate inert ingredients.

If the inert is not EPA approved, if it is not approved for the desired use, and if there are no viable alternate ingredients, then an applicant must submit a petition to EPA.

2 The Pesticide Registration Enhancement Act

The Pesticide Registration Enhancement Act (PREA or PRIA 4 as the fourth iteration of the Pesticide Registration Improvement Act) of 2019 authorizes EPA to establish and collect pesticide registration service fees for registration actions. PRIA was put in place with the support of both industry and EPA. PRIA requires EPA to review applications and make registration decisions within stipulated timelines in exchange for mandated fees to fund the resources required by the Agency. The review periods and fees are determined based primarily on whether the application is for a new ingredient and whether the petition is for food or non-food use.

There are sixteen PRIA 4 fee categories under which an inert petition may be regulated. EPA fees range from $1,654 for the approval of a substantially similar non-food use inert ingredient, to $597,683 for approval of a new food use safener [inert]. The decision review times range from three months to 24 months depending on the category. A description of each category as well as the associated timelines and fees are available on EPA's website. Small business waivers of up to 75% are available for registrants who qualify.

Congress amended PRIA in 2012 to include categories for inert ingredients. These categories were further amended in 2019. In some cases, the Agency had miscalculated the resources required to process these petitions under PRIA 3, so the changes under PRIA 4 are significant.

Applicants should expect a learning curve from the Agency as they adapt to the new categories, and a thorough understanding of the categories is vital as applicants develop submission strategies.

3 Food-use inert ingredients

Food-use inert ingredients are approved under the following specific use categories listed in title 40 of the Code of Federal Registration:

- 180.910 Inert ingredients used pre- and post-harvest; exemptions from the requirement of a tolerance
- 180.920 Inert ingredients used pre-harvest; exemptions from the requirement of a tolerance
- 180.930 Inert ingredients applied to animals; exemptions from the requirement of a tolerance
- 180.940 Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (food-contact surface sanitizing solutions)
- 180.950 Tolerance exemptions for minimal risk active and inert ingredients
- 180.960 Polymers; exemptions from the requirement of a tolerance

Under the Food Quality Protection Act (FQPA) of 1996, EPA must determine limitations on the amount of active and inert ingredients which remain in or on food after application of a product. The Agency establishes tolerances, the amount of chemical residue that may remain, or exemptions from tolerances, for all ingredients applied to food. Petitions for food contact inert ingredients must include a Notice of Filing summarizing the request for a tolerance or exemption from a tolerance, the proposed use, and a summary of all the supporting data.

4 Trade name ingredients

EPA began publishing a List of Trade Name Inert Ingredients in 2014. This voluntary database provides the trade name, approved uses, and the manufacturer's name, optionally, of inert ingredient formulations. The database is intended to confirm the approval status of an inert ingredient or inert mixture without disclosing the composition of that ingredient. This provides protection of the Confidential Business Information of inert suppliers. Manufacturers of inert ingredients or inert mixtures must submit the full compositional information and trade name of the ingredient or mixture to EPA for addition to the database.

The EPA database is intended to confirm the approval status of an inert ingredient or inert mixture without disclosing the composition of that ingredient.

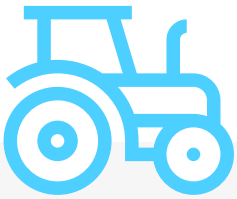
5 Strategies for pursing inert petitions

Registrants must approach the inert petition process with an open mind. The petition may seem daunting and the data requirements onerous, but there are strategies to consider which may ease the petition process. Registrants should consider methods beyond data generation to satisfy data requirements, understand the use of the ingredient in other jurisdictions, and engage with the Agency early to obtain feedback. Developing a well thought out strategy is a crucial first step in obtaining an inert petition and eventually getting a pesticide formulation to market.

The pesticide registration and inert petition process may be very data-heavy. While EPA has published an extensive list of data that must be addressed to support an inert petition, there are options other than data generation that an applicant may consider. Public literature citation, bridging arguments, and data waiver rationales are all strategies that the Agency may consider. If there is a scientifically sound basis on which the Agency may make their determination, data generation is not the only option.

Understanding the approval status of the ingredient in another jurisdiction may open the opportunities for support of a petition. For example, a proposed food contact inert ingredient may already be approved by the FDA for use in over-the-counter medicine. The FDA may have already evaluated the ingredient and made a safety determination that EPA can consider. Additionally, if the ingredient is already approved for use in pesticide formulations in Europe, EPA may be able to consider European scientific evaluations when completing their assessment. Approval by another authority is not a guarantee for EPA approval; however a wide body of knowledge may help the Agency understand the ingredient without requiring the applicant to generate additional data.

EPA recommends that applicants of inert petitions request a pre-submission meeting with CITAB to discuss the proposed inert petition. This meeting will provide the applicant with the opportunity to discuss the proposed new or amended inert ingredient and to understand any specific concerns EPA may have.



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Approach the petition process with an open mind – consider methods beyond data generation, understand the use of the ingredient in other jurisdictions and engage with EPA early to obtain feedback.

Applicants can discuss any chemically similar ingredients which the Agency may have already considered or gage EPA's willingness to consider a data wavier rationale. This is an excellent opportunity for an applicant to properly position the inert ingredient application within CITAB and reduce or hopefully prevent any unanticipated issues through the review process.

The inert petition process may be lengthy and expensive. A comprehensive understanding of the process, any potential pitfalls, and strategies for reducing data generation requirements can shorten the prep time before a petition is submitted and may reduce application costs. EPA provides many resources to applicants including a FAQ page and General Guidance for Petitioning the Agency for inert petitions. Prior planning and strategic thinking can pave the path towards successful approval of a new or amended inert ingredient.

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How TSG can help

TSG has extensive expertise assisting companies in preparing and submitting inert petitions. Our scientific and regulatory experts work closely with clients to develop a comprehensive inert petition strategy. TSG's consultants were involved in the PRIA Coalition, PRIA 4 fee category negotiations and are very familiar with the resources and requirements associated with pursuing a successful inert petition.

Interested in learning more?

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About the author

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Abigail specializes in pesticide compliance, with an emphasis on antimicrobials. She has particular expertise with inert ingredient petitions, treated articles, and products that integrate nanoscale materials, especially silver. Abigail combines her background in environmental studies with her regulatory knowledge to submit federal registration packages, prepare inert ingredient petitions, develop label claims and coordinate product testing. Before joining TSG, Abigail worked as an environmental protection specialist at the US Environmental Protection Agency (EPA) where she reviewed pesticide applications for compliance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Pesticide Registration Improvement Act (PRIA). Abigail earned a BA in Environmental Studies from Gettysburg College.

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