[Volatility Reducing Agent/Buffering Agent] Humidome Testing Requirement

Testing of any tank-mix product must be conducted in compliance with procedures as stated forth in [Appendix A]. Any potential [volatility reducing agent/buffering agent] product must demonstrate passing results for both wind tunnel and humidome testing.

[Registrant] must maintain a [Volatility Reducing Agent/Buffering Agent] tab on the website at [URL]. The website will identify a testing protocol, consistent with [Appendix A], that is appropriate for determining whether the mean humidome airborne dicamba concentration of a test mixture is less than or equivalent to (*i.e.*, not statistically greater than) that of the established testing standard in [Appendix A]. Products that have been tested pursuant to such testing protocol by [registrant] and found, based upon such testing, to result in a mean humidome airborne dicamba concentration less than or equivalent to that of the established testing standard in [Appendix A] will be added to the list of approved [volatility reducing agent/buffering agent] products on the website tab described above. Upon the Agency's request, humidome test data generated by [registrant] or somebody working for [registrant] with the intent of adding a product(s) to the list of approved [volatility reducing agents/buffering agents] on the website at [URL] must be submitted to EPA's Office of Pesticide Programs, along with certification indicating whether the study was performed either pursuant to the testing protocols identified on the website or pursuant to other protocols approved by EPA and whether the results of the testing support adding the product(s) to the list of products tested and found to result in a mean humidome airborne dicamba concentration less than or equivalent to that of the established testing standard in [Appendix A].

Additionally, the website must state that any third-party entity seeking to have a product added to the list of approved [volatility reducing agents/buffering agents] must contact [registrant] prior to any testing for this purpose. At the discretion of [registrant], [registrant] will either perform a study pursuant to the testing protocol herein or request the third-party to perform such study. Should [registrant] decline to perform testing, the third-party entity or a testing facility on their behalf must perform a study pursuant to the testing protocol identified on the website and must submit to [registrant] the test data and results, along with certification that the studies were performed pursuant to the testing protocol identified on the website and that the results of the testing support adding the product to the list of approved [volatility reducing agents/buffering agents] for [dicamba product]. [Registrant] will certify that the testing and results conform to the conditions prescribed in this protocol and, pursuant to the test conditions and results, will either post the product on the website at [URL] or notify the third-party entity that the product did not meet the requirements for posting. Where a third-party disagrees with this decision, the protocol used and the test results will be sent to EPA for a final decision. [Registrant] will maintain records related to this testing of third-party products and will supply these records to EPA upon their request.

The requirement that an approved [volatility reducing agent/buffering agent] must always be tank-mixed with [dicamba product], the listing of approved [volatility reducing agents/buffering agents] on the [URL] website, and the identification of the website address shall be included in educational and information materials developed by or for [registrant], including the materials identified in [Appendix D, Section B(l)].

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[Appendix A]

Testing of Tank Mix [Volatility Reducing Agents/Buffering Agents] Properties

Products proposed as [volatility reducing agents/buffering agents] may be added to the list of approved products on [URL] website if found, based upon such testing, that the Test Mixture results in a humidome airborne dicamba concentration are comparable to or less than the established Testing Standard as defined below.

Testing Conditions

Humidome test using conditions based on ASTM STP1587*, such as those outlined below. Testing is not required to be performed to GLP standards, but are expected to be well documented and validated, with associated record retention for potential future reference.

Testing Standard: [Dicamba Product] + Roundup PowerMAX + VaporGrip Xtra or Sentris (0.5 lb a.e./A + 1.125 lb a.e. glyphosate/A + XXX use rate)

Test Mixture: [Dicamba Product] + Roundup PowerMAX + Buffering Agent (0.5 lb a.e. dicamba/A + 1.125 lb a.e. glyphosate/A + XXX use rate)

Water carrier rate: 15 GPA

Normal plastic humidome as specified in ASTM STP1587

Treated substrate: soil/soil blend as specified in ASTM STP1587 with 12-22% moisture

Temperature: 35 ± 5° C

Relative humidity: 40 ± 5% RH

Sample collection duration: 24 hours

Air sampling rate: 1.5-3.0 L/min

Air sampling filter: any substrate validated to capture >95% of dicamba (*e.g.*, fiberglass mesh + cotton pad, cellulose + PUF, MCE)

Replications: 3 minimum

Analysis: A one-tail (upper-bound) t-test ($\alpha = 0.10$) performed for all test mixtures relative to testing standard.

Passing result: If the Test Mixture mean was not statistically greater than that of the Testing Standard, then the [volatility reducing agent/buffering agent] in the Test Mixture demonstrated the ability to reduce volatility equivalent to or better than that of [VaporGrip Xtra/Sentris].

* Gavlick, W.K., D.R. Wright, A. MacInnes, J.W. Hemminghaus, J.K. Webb, V.I. Yermolenka, W. Su. 2016. A Method to Determine the Relative Volatility of Auxin Herbicide Formulations, Pesticide Formulation and Delivery Systems: 35th Volume, ASTM STP1587. pp. 24-32G. R. Goss, Ed. ASTM International, West Conshohocken, PA.

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