UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Office of Chemical Safety and Pollution Prevention

MEMORANDUM **07/19/2013**

SUBJECT: Storage Stability and Corrosion Characteristics Studies for Potassium Phosphite Technical Containing 67.6% Phosphorous Acid as its Active Ingredient.

EPA Reg. No.:	**42519-36**
Chemical Class:	**Biochemical**
PC Code :	**076416**
DP No :	**412580**
Decision No. :	**479735**
MRID No.:	**491336-01 & -02**

FROM: Russell S. Jones, Ph.D., Senior Biologist /S/ 07/19/2013
Biochemical Pesticides Branch
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TO: Colin Walsh, Regulatory Action Leader /S/ 07/19/2013
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ACTION REQUESTED

On behalf of Lusembourg-Pamol, Inc., F. T. Smith (SciReg) has submitted a Stability Study and a combined Storage Stability and Corrosion Characteristics Studies for Potassium Phosphite Technical (EPA Reg. No. 42519-36) according to OCSPP Test Guidelines 830.6317 and 830.6320 (MRID 49133601).

RECOMMENDATIONS AND CONCLUSIONS

The studies demonstrate that the active ingredient is stable at normal and elevated temperatures in the presence of metals and metal ions for up to 12 months and that the product is stable in storage in its normal containers for up to 24 months under normal conditions of storage. In addition to these results, no corrosion was noted on any of the containers; The studies are both **ACCCEPTABLE.** No additional data are required.

STUDY SUMMARIES

The submitted study contains the final data for Stability Study (OCSPP 830.6313) and a combined, one-year Storage Stability and Corrosion Characteristics study in typical packaging material for Potassium Phosphite Technical (OCSPP Guidelines 830.6317 and 830.6320).

Stability to Normal and Elevated Temperatures – Metals and Metal Ions Study Design (MRID 49133601)

The Stability study report contains data on the active ingredient collected after storage of up to 14 days when stored at normal and elevated in the presence of metals and metal ions. Stability was determined by titration. The study was GLP compliant and conducted according to OCSPP 830.6313 Test Guidelines.

Five treatment groups of 18 samples each containing the test substance (0.45 g) were placed into storage at the initiation of this study on July 23, 2012. The samples are stored under normal (19-23 °C) and elevated (53-54 °C) temperature conditions in the presence of iron chips, iron acetate, aluminum shot, of aluminum acetate; one group of 5 samples was used as an untreated control. Two samples from each treatment and control group were analyzed for active ingredient content in duplicate at Day 0. Additional duplicate samples were analyzed on Days 1, 2, 7, and 14 of the study.

Active ingredient content was determined by titration with 0.1N sodium thiosulfate in the presence of 0.2N iodine and starch indicator solution. The volume of titrant used to cause disappearance of blue/black color was used to calculate the active ingredient content. Complete details of the analytical method and all calculations are contained in MRID 49133601, pp. 7-9. The method was shown to be linear (r^2 = 10000); precise (RDS = 0.23%); and accurate (standard recovery = 99.73%; mean sample recovery = 100.04%). See Tables 1and 2, MRID 49133601, pp. 12-17 for Stability data.

Storage Stability and Corrosion Characteristics Study Design (MRID 49133602)

The Storage Stability and Corrosion Characteristics study report contains data on the active ingredient in the technical product collected after storage of up to 24 months at normal and elevated in the presence of metals and metal ions. Storage tability was determined by titration. Corrosion Characteristics were determined by visual observations. The study was GLP compliant and conducted according to OCSPP 830.6317 and 830.5320 Test Guidelines.

Nine sample packages (including 3 spares) containing the test substance were placed into storage in sealed polyethylene bags at the initiation of this study on March 4, 2010. The samples are stored under ambient laboratory conditions (18-27 °C). All containers were weighed and observed for the physical condition at the beginning of the study and were examined again at each subsequent sampling point. Samples were analyzed and containiers observed for physical changes at 0, 3, 6, 9, 12, 18, and 24 month of storage.

Active ingredient content was determined by titration as described above for the Stability study. See MRID 49133602 for Summary Table on p. 11; and Tables 1 and 2, pp. 13-15 for Storage Stability Corrosion Characteristics data.

CONCLUSIONS

The studies demonstrate that the active ingredient is stable at normal and elevated temperatures in the presence of metals and metal ions for up to 12 months and that the product is stable in storage in its normal containers for up to 24 months under normal conditions of storage. In addition to these results, no corrosion was noted on any of the containers; The studies are both **ACCCEPTABLE.**