

## Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4 Application

**Application Number:** 2018-5556  
**Application:** New End-use Product (Product Chemistry) – Guarantee, Identity of Formulants, Proportion of Formulants  
**Product:** Bellacide 355W  
**Registration Number:** 33609  
**Active ingredient (a.i.):** Tributyl tetradecyl phosphonium chloride  
**PMRA Document Number:** 3055078

### Purpose of Application

The purpose of this application was to register Bellacide 355W, a new end-use product for the control of slime-forming bacteria and sulfate-reducing bacteria in enhanced oil recovery injection waters and fracturing fluids.

### Chemistry Assessment

Bellacide 355W is formulated as a solution containing tributyl tetradecyl phosphonium chloride at a concentration of 5.0%. This end-use product has a density of 0.960 g/mL and pH of 6-8. The required chemistry data for Bellacide 355W have been provided, reviewed and found to be acceptable.

### Health Assessments

Bellacide 355W is classified as being of moderate acute toxicity via the oral route, of low acute toxicity via the dermal route, highly toxic via the inhalation route, corrosive to eyes and skin, and not a dermal sensitizer.

The use of Bellacide 355W for the control of slime-forming bacteria and sulfate-reducing bacteria in enhanced oil recovery injection waters and fracturing fluids is not expected to result in potential occupational or bystander exposure over the registered use of tributyl tetradecyl phosphonium chloride. No risks of concern are expected when workers follow label directions and wear personal protective equipment as stated on the label.

A dietary exposure assessment was not required for this application.

### Environmental Assessment

The registration of Bellacide 355W is supported from an environmental perspective. The required environmental risk reduction and hazard statements are included on the product label.

## **Value Assessment**

One laboratory study was provided to support the value of Bellacide 355W as an industrial slimicide for use in the oil and gas production industry. The study demonstrated that the product was effective in controlling representative microbial contaminant species within fluids representative of oilfield uses, such as water floods and fracturing fluids, when used at the label rates. Therefore, Bellacide 355W has been shown to have acceptable value as an industrial slimicide for these purposes.

## **Conclusion**

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to support the registration of Bellacide 355W.

## References

<b>PMRA Document Number</b>	<b>Reference</b>
2929514	2018, Formulation Process, DACO: 3.2.1, 3.2.2, 3.2.3 CBI
2929516	2018, Enforcement Analytical Method, DACO: 3.4.1 CBI
2929517	2018, Chemical and Physical Properties, DACO: 3.5.1, 3.5.11, 3.5.12, 3.5.13, 3.5.15, 3.5.2, 3.5.3, 3.5.4, 3.5.5, 3.5.6, 3.5.7, 3.5.8, 3.5.9 CBI
2929518	2018, Bellacide 355W: Accelerated Storage Stability and Corrosion Characteristics, DACO: 3.5.10, 3.5.14 CBI
2944463	2018, Bellacide 355W: Physical and Chemical Characteristics: Color, Physical State, Odor, Oxidation/Reduction, Flammability, pH, Viscosity, and Density/Relative Density, DACO: 3.5.1, 3.5.11, 3.5.2, 3.5.3, 3.5.6, 3.5.7, 3.5.8, 3.5.9 CBI
2447976	2014, Value Summaries, DACO: 10.1, 10.2.2, 10.2.3.1, 10.3.1, 10.3.2
2447978	2000, Bellacide 350 Product Information, DACO: 10.2.1
2928715	2016, Biocidal Efficacy of Bellacide 355 Under Oilfield Conditions, DACO: 10.2.3.1, 10.2.3.3

ISSN: 1911-8082

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Health Canada, 2019

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of Health Canada, Ottawa, Ontario K1A 0K9.