

Evaluation Report for Category B, Subcategory 3.12 Application

Application Number: 2015-0146
Application: New product: new site or host
Product: Sabrechlor 25
Registration Number: 32219
Active ingredients (a.i.): Sodium chlorite
PMRA Document Number: 2613231

Purpose of Application

The purpose of this application was to register a new product, Sabrechlor 25 containing sodium chlorite at 25%, which is used as a precursor to generate chlorine dioxide. Sabrechlor 25 is for use in controlling microorganisms in industrial process waters (oilfield injection water, paper mill systems and recirculating cooling towers) and is based on a precedent slimicide used for recirculating cooling towers and pulp and paper mill process water.

Chemistry Assessment

A chemistry review was not required for this application.

Health Assessments

Sabrechlor 25 is expected to be highly acutely toxic via the oral route, of low acute toxicity via the dermal route and moderately acutely toxic via the inhalation route. It is expected to be corrosive to the eye and skin of rabbits. It is not expected to be a dermal sensitizer.

The use of Sabrechlor 25 for antimicrobial control in recirculating cooling towers, pulp and paper mills, and for use in enhanced oil recovery systems and oil-field injection waters is not expected to result in potential occupational or bystander exposure over the registered use of sodium chlorite. No risks of concern are expected when workers follow label directions and wear personal protective equipment as stated on the label.

Environmental Assessment

No additional environmental data are required to support the registration of Sabrechlor 25. Compared to the precedent product, no additional risk is expected from the use of Sabrechlor 25.

Value Assessment

Sabrechlor 25 is based on a precedent product for its uses as a slimicide for recirculating cooling towers and pulp and paper mill process water and is, therefore, acceptable for use at concentrations of chlorine dioxide between 0.5-5.0 ppm for continuous doses, and between 5.0 and 100 ppm for intermittent shock doses.

The use history information that was provided has shown that chlorine dioxide treatments of 9-33 ppm were sufficient to control free floating microorganisms in fracture water samples, which supports the proposed concentration of chlorine dioxide of 0.25-5.0 ppm above the chemical demand of the water system which is dependent on the severity of contamination, temperature and pH. Therefore, the proposed range of rates is acceptable from a value point of view.

Conclusion

Following review of the application, Sabrechlor 25 was approved for use to control microorganisms in industrial process waters.

References

PMRA

Document

Number

Reference

2491264	2014, Developed field Sabrechlor 25 efficacy data to support use for the generation of chlorine dioxide in oil and gas applications, DACO: 10.1, 10.2.3, 10.2.3.1, 10.2.3.3
2491265	2014, Sabrechlor 25 Efficacy Testing Protocol, DACO: 10.1, 10.2.3, 10.2.3.1, 10.2.3.3
2506185	2015, Use History Site Applied and Rationale to Bridge across uses, DACO: 10.2.3.1,10.2.4
2514910	2015, Statement of non-safety adverse effects, DACO: 10.3.2

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