

Evaluation Report for Category B, Subcategory 2.3, 2.4, 3.1, 3.12 Application

Application Number: 2008-6100
Application: B.2.3 - New Formulants
B.2.4 - New Proportion of Formulants
B.3.1 - Changes to Product Labels-Application Rate Increase
B.3.12 - Changes to Product Labels-New Sites/Hosts
Product: AQUCAR GA 42 Water Treatment Microbiocide
Registration Number: 24290
Active ingredients (a.i.): Glutaraldehyde (GLT), N-Alkyl dimethyl benzyl ammonium chloride (QAC)
PMRA Document Number: 2075946

Purpose of Application

The purpose of this application was to amend the formulation of AQUCAR GA 42 Water Treatment Microbiocide (Registration number 24290; previously named AQUCAR 542 Water Treatment Microbiocide), as well as adding new use sites (oil and gas field operations) amended application rates to the label.

Chemistry Assessment

AQUCAR GA 42 Water Treatment Microbiocide is formulated as a solution containing glutaraldehyde at 42.5% nominal and n-alkyl (40% C12, 50% C14, 10% C16) dimethyl benzyl ammonium chloride at 7.5% minimum. This end-use product has a density of 1.035 g/mL and a pH between 3.1-4.5. All the chemistry requirements for AQUCAR GA 42 Water Treatment Microbiocide are complete.

Health Assessments

The change in formulation is not expected to alter the toxicological profile of the product.

A qualitative health assessment has been conducted to expand AQUCAR GA 42 Water Treatment Microbiocide to include uses for the control of bacteria in oil and gas field operations. Exposure to mixer, loader, applicators and post-application workers was determined to be acceptable.

Environmental Assessment

An environmental assessment was not conducted as the use expansion is not expected to result in a potential increase in the environmental exposure and impact from that of the currently registered uses.

Value Assessment

Laboratory and field studies were conducted to evaluate the ability of AQUICAR GA 42 Water Treatment Microbiocide to reduce bacterial activity in oilfield waters. The laboratory studies were conducted using microbial samples taken in various oilfield contaminated waters to obtain representative challenge organisms. Aliquots of these contaminated samples were challenged with various concentrations of the biocides and incubated at a range of temperatures to represent the variety of conditions that can be found in oilfield applications. The field study was conducted in a water flood and the results were monitored at nine locations throughout the field. A scientific rationale was also provided to support the grouping of “Oil and gas production and transmission pipelines and systems” and of “Pipeline pigging and scraping operation”. The data demonstrated that AQUICAR GA 42 Water Treatment Microbiocide is effective at reducing bacterial counts under representative use conditions.

Conclusion

The PMRA has completed an assessment of the available information for AQUICAR GA 42 Water Treatment Microbiocide and has found the information sufficient to approve the formulation amendment, as well as the addition of new use sites (oil and gas field operations) to the label of AQUICAR GA 42 Water Treatment Microbiocide.

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ISSN: 1911-8082

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