

Evaluation Report for Category B, Subcategory 1.2 Application

Application Number: 2017-1501
Application: New ISP Product Chemistry – New Source (Site) New Registrant
Product: Hydrogen Peroxide and PAA 11/15%
Registration Number: 33138
Active ingredients (a.i.): Hydrogen Peroxide, Peroxyacetic Acid
PMRA Document Number: 2886427

Purpose of Application

The purpose of this application was to register a new source of an integrated system product (ISP), containing the active ingredients hydrogen peroxide and peroxyacetic acid.

Chemistry Assessment

Accepted Names: Hydrogen peroxide and Peroxyacetic acid
 IUPAC* Chemical Names: Hydrogen peroxide and Ethaneperoxoic acid
 CAS† Chemical Names: Hydrogen peroxide and Peroxyacetic acid

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Hydrogen Peroxide and PAA 11/15% has the following properties:

Property	Result
Colour and physical state	Colourless liquid
Nominal concentration	11.2% Hydrogen peroxide 15.2% Peroxyacetic acid
Odour	Strong acetic acid odour
Density at 20°C	1.114 g/mL
Vapour pressure at 20°C	1.3-2.6 kPa (variable sources)
pH	2.83 (1% solution); 1.8 (neat)
Solubility in water	Completely miscible in water

Property	Result
n-Octanol/water partition coefficient	Log K _{ow} = -0.46 (pH 5) Log K _{ow} = -0.60 (pH 7) Log K _{ow} = -0.66 (pH 9) Log K _{ow} = -0.23 (calculated, neutral form)

The required chemistry data for Hydrogen Peroxide and PAA 11/15% have been provided, reviewed, and found to be acceptable.

Health Assessments

On the basis of the submitted acute data package, the ISP Hydrogen Peroxide and PAA 11/15% is anticipated to be acutely corrosive to skin, eyes and mucosal membranes. The oral, dermal and inhalation toxicities are secondary to the corrosivity. The active ingredients are unlikely to accumulate in mammalian organs/tissues long enough to exert significant effects on reproduction and development or induce neurotoxicity.

Exposure assessments were not required for this application.

Environmental Assessment

Peroxyacetic acid and hydrogen peroxide are relatively unstable in water due to hydrolytic reactions, spontaneous degradation and potential microbial breakdown. Peroxyacetic acid and hydrogen peroxide are not expected to accumulate in organisms and will breakdown quickly in aquatic and terrestrial environments. The transformation products are not of toxicological concern to the environment.

Value Assessment

A value assessment was not required for this application.

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 Hydrogen Peroxide and PAA 11/15%.

References

A. List of Studies/Information Submitted by the Registrant

PMRA Document Number	References
2744302	2013, AdvaCare 120 Sanitizer/Sour (Identical product), DACO: 2.14.13, 2.14.8 CBI
2744305	2017, Chemistry Requirements for an ISP, DACO: 2.1, 2.2, 2.3, 2.3.1, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 CBI
2744307	1995, Oxy-15 - Chemical Characterization EPA Registration No. 1677-164, DACO: 2.11.1, 2.11.2, 2.11.3, 2.11.4, 2.12.1, 2.13.1, 2.13.2, 2.13.3, 2.14.1, 2.14.15, 2.14.2, 2.14.3, 2.14.6, 3.5.8, 3.5.9 CBI
2744308	1996, Oxy-15 Long-Term Storage Stability EPA Registration No. 1677-164, DACO: 2.14.14, 3.5.14, 3.5.5 CBI
2744309	2017, Environmental Chemistry and Fate Summary, DACO: 2.14.10, 2.14.11, 2.14.12, 2.14.4, 2.14.5, 2.14.7, 2.14.9, 8.1
2790300	2017, % Recent Certificate of Analysis for 15%, DACO: 2.13.3 CBI
2790301	2017, [CBI Removed] rationale, DACO: 2.13.4 CBI
2790302	2015, Quality Assurance Test Method Activity of Peracetic Acid by Acid-Base Titration, DACO: 2.13.1 CBI
2790303	2014, Quality Assurance Test Method Activity of Peracetic Acid by Acid-Base Titration, DACO: 2.13.1 CBI
2801001	2017, Clarification of the use of [CBI Removed], DACO: 2.11.2 CBI
2801002	2017, Listing of Starting Material Suppliers, DACO: 2.11.2 CBI
2745015	1995, Acute Oral Toxicity in Rats - Median Lethal Dosage Determination of Oxy-15, DACO: 4.6.1
2745016	2017, Scientific Rationale to Waive Requirements for EP Advacare Laundry Disinfectant, DACO: 4.6.2,4.6.4,4.6.5,4.6.6
2745017	2017, Scientific Rationale to Waive Requirements for EP Advacare Laundry Disinfectant, DACO: 4.6.3
2744310	2017, Scientific Rationale to Waive Requirements for TGAI Peroxyacetic Acid for Use Site 17, DACO: 8.2.2.1, 8.2.2.2, 8.2.3.5.6, 8.2.4.2
2744343	2015, Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products, DACO: 12.5.10
2744346	2008, SIDS Dossier, DACO: 12.5

B. Additional Information Considered

Published Information

2848309	Federal-Provincial-Territorial Committee on Drinking Water, 2015, Chromium in Drinking Water – Document for Public Consultation, DACO:4.8
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