

Evaluation Report for Category B, Subcategory B.1.3 Application

Application Number: 2005-3883
Application: Category B, Subcategory B.1.3 (New ISP product chemistry)
Product: Peraclean
Registration Number: 28826
Active ingredients (a.i.): Peracetic Acid, Hydrogen Peroxide
PMRA Document Number: 1697847

Background

Three sources of hydrogen peroxide and peracetic acid (Reg Nos. 26165, 26978, and 28127) were registered at the time of this application. The original source was registered in 1999.

Purpose of Application

The purpose of this submission is to register Peraclean, a new source of a registered ISP composed of peroxyacetic acid and hydrogen peroxide for use in the formulation of slimicides for pulp and paper processes.

Chemistry Assessment

Common Name: N/A
IUPAC Chemical Name: Hydrogen Peroxide; Ethaneperoxoic acid
CAS Chemical Name: Hydrogen Peroxide; Peroxyacetic acid

Peraclean has the following properties:

Property	Result
Colour and physical state	Clear colourless liquid
Nominal concentration	ISP
Odour	Very similar to acetic acid
Density	1.148 g/mL
Vapour pressure (at 20°C)	2.5 kPa
pH	2
Solubility in water	Completely miscible
n-Octanol/water partition coefficient	Log K_{OW} = -0.52 for peracetic acid

The chemistry requirements for Peraclean have been completed.

Health Assessments

Peraclean is considered to be of slight acute toxicity to rats (LD₅₀ greater than 1000 mg/kg bw) via the oral route and to rabbits (LD₅₀ of 1410 mg/kg bw) via the dermal route. Peraclean is considered to be of moderate acute toxicity to rats (LC₅₀ of 0.45 mg/L) via the inhalation route of exposure. Peraclean is considered to be corrosive to the eye and skin of rabbits. Peraclean is not considered a skin sensitizer.

Environmental Assessment

N/A

Value Assessment

A value assessment is not required for technical grade active ingredients.

Conclusion

The PMRA has completed an evaluation of the subject application and has determined that Peraclean is eligible for full registration.

References

PMRA Document Number	Reference
1102440	Description of Manufacturing Summary;, DACO: 2.11.1 CBI
1102441	Description of Starting Materials;, DACO: 2.11.2 CBI
1102442	Detailed Production Process Description;, DACO: 2.11.3 CBI
1102443	Discussion of Formation of Impurities;, DACO: 2.11.4 CBI
1102445	1997, Methodology/Validation; Determination of Hydrogen peroxide and peracetic acid in peracetic acid solution, DACO: 2.13.1 CBI
1102446	1996, Confirmation of Identity/Batch Data;, DACO: 2.13.2,2.13.3 CBI
1338561	Detailed Production Process Description, DACO: 2.11.3 CBI
1338562	PERACLEAN 15 production scheme 44,840 lbs. batch, DACO: 2.11.3 CBI
1338563	Acetic acid titration, product information, DACO: 2.13.1 CBI
1338564	Applications information - Analytical methods for Peracetic acid, DACO: 2.13.1 CBI
1338566	Batch data, DACO: 2.13.3 CBI
1338567	2006, Analytical data of PERACLEAN 15 EPA, DACO: 2.13.3 CBI
1338568	Storage Stability, DACO: 2.14.14 CBI

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