

## Evaluation Report for Category B, Subcategory 1.1 & 1.3 Application

**Application Number:** 2011-3015  
**Application:** New / Changes TGAI Product Chemistry-New Source (site) same registrant and Specifications  
**Product:** Clethodim Technical  
**Registration Number:** 22623  
**Active ingredients (a.i.):** Clethodim  
**PMRA Document Number:** 2137349

### Purpose of Application

The purpose of this application was to add an alternate formulation and amend the specifications including an increase in guarantee and new impurities to Clethodim Technical.

### Chemistry Assessment

Common Name: Clethodim  
 IUPAC Chemical Name: (5*RS*)-2-[(1*EZ*)-1-[(2*E*)-3-chloroallyloxyimino]propyl]-5-[(2*RS*)-2-(ethylthio)propyl]-3-hydroxycyclohex-2-en-1-one  
 CAS Chemical Name: 2-[1-[[[(2*E*)-3-chloro-2-propen-1-yl]oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one

Clethodim Technical has the following properties:

Property	Result
Colour and physical state	Amber liquid
Nominal concentration	95.0%
Odour	No characteristic odour
Density at 22°C	1.152-1.157 g/mL
Vapour pressure	< 1 × 10 <sup>-2</sup> mPa at 20°C
pH	4.0-4.3
Solubility in water	5.45 g/L
n-Octanol/water partition coefficient	Log K <sub>ow</sub> = 4.14; K <sub>ow</sub> = 1.38 × 10 <sup>4</sup>

The chemistry requirements for Clethodim Technical have been completed.

## **Health Assessments**

The toxicological profile of Clethodim Technical is expected to be similar to that of the precedent product. Additional toxicological data were not reviewed or required for this application.

The new manufacturing source for technical grade active ingredient clethodim is not expected to alter the residues in crops treated with end-use products containing this active ingredient. Therefore, the dietary exposure to clethodim is not expected to increase and will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

An occupational exposure risk assessment was not required for this application.

## **Environmental and Value Assessment**

Environmental and value assessments were required for this application.

## **Conclusion**

The PMRA has conducted a review of the available information and can support alternate formulation and changes to the product specifications.

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