



## Evaluation Report for Category B, Subcategory 1.1 Application

**Application Number:** 2016-1467  
**Application:** Changes to TGAI Product Chemistry – New Source (site) Same Registrant  
**Product:** Clethodim Technical  
**Registration Number:** 22623  
**Active ingredients (a.i.):** Clethodim  
**PMRA Document Number:** 2727623

### Purpose of Application

The purpose of this application was to add a manufacturing site to Clethodim Technical.

### Chemistry Assessment

**Common Name:** Clethodim  
**IUPAC\* Chemical Name:** (5*E*)-2-[(1*E*)-*N*-{[(2*E*)-3-chloroprop-2-en-1-yl]oxy}propanimidoyl]-5-[(2*E*)-2-(ethylsulfanyl)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

\* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Clethodim Technical has the following properties:

Property	Result
Colour and physical state	Amber liquid
Nominal concentration	95.0%
Odour	No characteristic odour
Density	1.15 g/mL
Vapour pressure	<0.01 mPa (at 20°C)
pH	3.9-4.1
Solubility in water	5.45 g/L (20°C)

<b>Property</b>	<b>Result</b>
n-Octanol/water partition coefficient	Log $K_{ow}$ = 4.14

The required chemistry data for Clethodim Technical have been provided, reviewed, and found to be acceptable.

### **Health, Environmental and Value Assessments**

Health, environmental and value assessments were not required for this application.

### **Conclusion**

The Pest Management Regulatory Agency has completed an assessment of the information provided and has determined that the addition of a manufacturing site to Clethodim Technical can be supported.

## References

<b>PMRA Document Number</b>	<b>References</b>
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2617929	2014, Preliminary Analyses of Five Representative Production Batches of Clethodim Technical Grade Active Ingredient (TGAI) to Determine Percent Clethodim and to Quantify its Associated Impurities, DACO: 2.12.1, 2.13.1, 2.13.2, 2.13.3, 2.13.4 CBI
2617937	2015, Production Process of Clethodim, DACO: 2.11.1, 2.11.2, 2.11.3, 2.11.4, 2.12.1 CBI
2617938	2016, Applicant's Name and Office Address, Formulating Plant and Address and Chemical Properties for Clethodim Technical, Reg. No. 22623, DACO: 2.1, 2.14.1, 2.14.10, 2.14.11, 2.14.12, 2.14.13, 2.14.14, 2.14.15, 2.14.2, 2.14.3, 2.14.4, 2.14.5, 2.14.6, 2.14.7, 2.14.8, 2.14.9, 2.2 CBI

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