



## Evaluation Report for Category B, Subcategory 1.1 Application

**Application Number:** 2010-1559  
**Application:** New/Changes to the technical grade active ingredient – new source (site) same registrant  
**Product:** Pursuit Technical Herbicide AC 263,499  
**Registration Number:** 21536  
**Active ingredients (a.i.):** Imazethapyr  
**PMRA Document Number :** 1932641

### Purpose of Application

The purpose of this application is to add a new manufacturing site of the technical grade active ingredient to the currently registered product, Pursuit Technical Herbicide AC 263,499, Registration Number 21536.

### Chemistry Assessment

Common name: imazethapyr

Chemical name

(IUPAC): 5-ethyl-2-[(*RS*)-4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl]nicotinic acid

(CAS): (±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid

Pursuit Technical Herbicide AC 263,499 has the following properties:

Property	Results												
Colour and physical state	Off-white to tan solid												
Nominal concentration	97.3 %												
Odour	Moderate pungent odour												
Density	0.495 g/mL												
Vapour pressure	4.2 × 10 <sup>-9</sup> Pa at 20°C 1.2 × 10 <sup>-8</sup> Pa at 25°C												
pH	2.85 for a 1 % solution												
Solubility in water	<table border="0"> <tr> <td><u>pH</u></td> <td><u>Solubility (g/L)</u></td> </tr> <tr> <td>distilled water</td> <td>1.3</td> </tr> <tr> <td>4</td> <td>2.4</td> </tr> <tr> <td>7</td> <td>5.0</td> </tr> <tr> <td>9</td> <td>7.1</td> </tr> <tr> <td>(unspecified)</td> <td>1.4 at 25°C</td> </tr> </table>	<u>pH</u>	<u>Solubility (g/L)</u>	distilled water	1.3	4	2.4	7	5.0	9	7.1	(unspecified)	1.4 at 25°C
<u>pH</u>	<u>Solubility (g/L)</u>												
distilled water	1.3												
4	2.4												
7	5.0												
9	7.1												
(unspecified)	1.4 at 25°C												

n-Octanol/water partition coefficient	pH	log Kow
		distilled water (3.9)
	5 (4.8)	-0.03
	7 (6.8)	-1.75
	9 (8.7)	-2.27
	(neutral form)	1.37 (calculated)
	5	1.04
	7	1.49
	9	1.20

The chemistry requirements for Pursuit Technical Herbicide AC 263,499 have been completed.

### Health, Environmental and Value Assessments

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

### Conclusion

The PMRA has conducted a review of the available information for this application and has concluded that the addition of a new manufacturing site for the production of Pursuit Technical Herbicide (AC 263,499) is acceptable.

### References

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- 1894942 2010, Product identity and composition of Imazethapyr for the [CBI REMOVED] source change, DACO: 2.11,2.11.1,2.11.2,2.11.3,2.11.4,2.12.1 CBI
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- 1894953 2010, Determination of solubility in water and n-Octanol/water partition coefficients for technical Imazethapyr (TGAI) manufactured at [CBI REMOVED] DACO: 2.14.11,2.14.7,2.14.8 CBI

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