



Evaluation Report for Category B, Subcategory 1.1 Application

Application Number: 2019-6798
Application: Changes to TGAI Chemistry; New Source
Product: Abamectin Technical
Registration Number: 24484
Active ingredients (a.i.): Abamectin
PMRA Document Number: 3113287

Purpose of Application

The purpose of this application was to add a new source of active ingredient (new manufacturing site) for Abamectin Technical.

Chemistry Assessment

Common Name: Abamectin

IUPAC* Chemical Name: Mixture of 80-100% (10*E*,14*E*,16*E*)-
(1*R*,4*S*,5'*S*,6*S*,6'*R*,8*R*,12*S*,13*S*,20*R*,21*R*,24*S*)-6'-[(*S*)-*sec*-butyl]-
21,24-dihydroxy-5',11,13,22-tetramethyl-2-oxo-(3,7,19-
trioxatetracyclo[15.6.1.1^{4,8}.0^{20,24}]pentacosa-10,14,16,22-tetraene)-
6-spiro-2'-(5',6'-dihydro-2'*H*-pyran)-12-yl 2,6-dideoxy-4-*O*-(2,6-
dideoxy-3-*O*-methyl- α -L-*arabino*-hexopyranosyl)-3-*O*-methyl- α -L-
arabino-hexopyranoside
and
20-0% (10*E*,14*E*,16*E*)-
(1*R*,4*S*,5'*S*,6*S*,6'*R*,8*R*,12*S*,13*S*,20*R*,21*R*,24*S*)-21,24-dihydroxy-6'-
isopropyl-5',11,13,22-tetramethyl-2-oxo-(3,7,19-
trioxatetracyclo[15.6.1.1^{4,8}.0^{20,24}]pentacosa-10,14,16,22-tetraene)-
6-spiro-2'-(5',6'-dihydro-2'*H*-pyran)-12-yl 2,6-dideoxy-4-*O*-(2,6-
dideoxy-3-*O*-methyl- α -L-*arabino*-hexopyranosyl)-3-*O*-methyl- α -L-
arabino-hexopyranoside

CAS† Chemical Name: Avermectin B1

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Abamectin Technical has the following properties:

Property	Result
Colour and physical state	Off-white to slightly yellow solid
Nominal concentration	92.1%
Odour	Slight alcoholic solvent odour
Density	1.16 g/cm ³
Vapour pressure	< 3.7 × 10 ⁻³ mPa
pH	Not water-soluble
Solubility in water	1.21 mg/L
n-Octanol/water partition coefficient	log K _{ow} = 4.4

The required chemistry data for Abamectin 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 found the information sufficient to add a new manufacturing site for Abamectin Technical.

References

PMRA

Document

Number	Reference
1325313	2006, Chemistry source documents for the submission to add a new manufacturing source for Abamectin Technical, DACO: 2.1, 2.11.1, 2.11.2, 2.11.3, 2.11.4, 2.12.1, 2.12.2, 2.13.1, 2.13.2, 2.13.3, 2.13.4, 2.14.1, 2.14.10, 2.14.11, 2.14.12, 2.14.13, 2.14.14, 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, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 CBI
1607977	1991, Avid/Agri-Mek 0.15 EC Miticide/Insecticide Abamectin. Product Chemistry Technical Active Ingredient., DACO: 2.1, 2.10, 2.11, 2.12, 2.13, 2.14, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 CBI
3063673	"2019, Abamectin Technical II (MK936) - Document J (Addendum to MRID Nos. 46945401 and 49978701), DACO: 2.2 CBI"
3063674	2019, Abamectin Technical II (MK936) - Document H, DACO: 2.11.2 CBI

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