

Evaluation Report for Category B, Subcategory 1.2 Application

Application Number: 2016-2209
Application: New TGAI Product Chemistry – New Source (site) New Registrant
Product: UPI S-Metolachlor Technical
Registration Number: 32735
Active ingredients (a.i.): S-Metolachlor and R-enantiomer
PMRA Document Number: 2726115

Purpose of Application

The purpose of this application was to register a new source of the active ingredient S-metolachlor and R-enantiomer, UPI S-Metolachlor Technical, by a new registrant.

Chemistry Assessment

Common Name: S-Metolachlor and R-enantiomer
IUPAC* Chemical Name: mixture of 80–100% 2-chloro-*N*-(6-ethyl-*o*-tolyl)-*N*-[(1*S*)-2-methoxy-1-methylethyl]acetamide and 20–0% 2-chloro-*N*-(6-ethyl-*o*-tolyl)-*N*-[(1*R*)-2-methoxy-1-methylethyl]acetamide
 or
 mixture of 80–100% 2-chloro-6'-ethyl-*N*-[(1*S*)-2-methoxy-1-methylethyl]acet-*o*-toluidide and 20–0% 2-chloro-6'-ethyl-*N*-[(1*R*)-2-methoxy-1-methylethyl]acet-*o*-toluidide
CAS† Chemical Name: 2-chloro-*N*-(2-ethyl-6-methylphenyl)-*N*-[(1*S*)-2-methoxy-1-methylethyl]acetamide

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

UPI S-Metolachlor Technical has the following properties:

Property	Result
Colour and physical state	Brown liquid
Nominal concentration	97.87%
Odour	Aromatic odour
Density at 20 °C	1.1176 – 1.1180 g/mL
Vapour pressure	3.52×10^{-3} Pa (at 20°C)

Property	Result
pH	5.81
Solubility in water	0.443 g/L (20°C, pH 6.98)
n-Octanol/water partition coefficient	log K _{ow} = 3.06 at 20°C

The required chemistry data for UPI S-Metolachlor Technical have been provided, reviewed, and found to be acceptable.

Health Assessments

Exposure assessments were not required for this application.

The new source for UPI S-Metachlor Technical is toxicologically equivalent to the precedent source. Subsequently, no toxicological data were reviewed or are required.

Environmental Assessment

The impurities present in UPI S-Metachlor Technical do not constitute an environmental concern.

Value Assessment

A value assessment was not required for this application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided and found the information sufficient to support the registration of UPI S-Metolachlor Technical.

References

PMRA Document Number	References
2635700	2016, Applicant's Name and Office Address, Formulating Plant and address, Product Name and Storage Stability for UPI S-Metolachlor Technical, DACO: 2.1, 2.14.14, 2.2, 2.3, 2.3.1
2635701	2016, Applicant's Name and Office Address, Formulating Plant and address, Product Name and Storage Stability for UPI S-Metolachlor Technical, DACO: 2.1, 2.14.14, 2.2, 2.3, 2.3.1 CBI
2635703	2015, UPI S-Metolachlor Technical - Product Identity and Composition, Description of the Materials Used, Description of the Production Process, Discussion of the Formation of Impurities, and Certified Limits, DACO: 2.11.1, 2.11.2, 2.11.3, 2.11.4, 2.12.1 CBI
2635704	2011, Development and Validation of Analytical Method for Active Ingredient Analysis of S-Metolachlor Technical by HPLC, DACO: 2.13.1 CBI
2635705	2011, Enforcement of Analytical Method - Validation of Analytical Methods for Determination of S-Metolachlor and Its Associated Impurities in S-Metolachlor Technical Samples, DACO: 2.13.1, 2.13.2 CBI
2635706	2011, Preliminary Analyses of Five Representative Production Batches of S-Metolachlor Technical Grade Active Ingredient (TGAI) to Determine % S-Metolachlor and to Quantify its Associated Impurities, DACO: 2.13.2, 2.13.3, 2.13.4, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 CBI
2635707	2011, Appearance (Colour, Physical State and Odour) of S-Metolachlor Technical, DACO: 2.14.1, 2.14.2, 2.14.3
2635708	2011, Dissociation Constant of S-Metolachlor Purified, DACO: 2.14.10
2635709	2011, Dissociation Constant of S-Metolachlor Technical, DACO: 2.14.10
2635710	2011, Partition Coefficient (N-Octanol/Water) of S-Metolachlor Technical, DACO: 2.14.11
2635711	2011, Partition Coefficient (N-Octanol/Water) of S-Metolachlor Purified, DACO: 2.14.11
2635712	2011, Spectral Analysis (UV, IR, NMR and Mass) of S-Metolachlor Technical, DACO: 2.14.12
2635713	2011, Determination of Stability of S-Metolachlor Technical With and Without Metals and Metal Ions at Normal and Elevated Temperature, DACO: 2.14.13
2635714	2011, pH of S-Metolachlor Technical, DACO: 2.14.15
2635715	2013, Melting Point and Melting Range of S-Metolachlor Technical, DACO: 2.14.4
2635716	2011, Boiling Point / Boiling Range of S-Metolachlor Technical, DACO: 2.14.5
2635717	2011, Boiling Point / Boiling Range of S-Metolachlor Purified, DACO: 2.14.5
2635718	2011, Specific Gravity of S-Metolachlor Technical, DACO: 2.14.6
2635719	2011, Water Solubility of S-Metolachlor Purified, DACO: 2.14.7
2635721	2011, Water Solubility of S-Metolachlor Technical, DACO: 2.14.7
2635723	2011, Solubility of S-Metolachlor Technical in Organic Solvents, DACO: 2.14.8

ISSN: 1911-8082

**8 Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services
Canada 2016**

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of the Minister of Public Works and Government Services Canada, Ottawa, Ontario K1A 0S5.