

Evaluation Report for Category B, Subcategory B.1.3 Application

Application Number: 2012-4514
Application: Changes TGAI Chemistry Specifications
Product: Inaziflam Technical Herbicide
Registration Number: 30219
Active ingredients (a.i.): Indaziflam (IDF)
PMRA Document Number : 2297879

Purpose of Application

The purpose of this application was to revise the statement of product specification form (SPSF) for Inaziflam Technical Herbicide.

Chemistry Assessment

Common Name: Indaziflam
IUPAC Chemical Name: *N*-[(1*R*,2*S*)-2,3-dihydro-2,6-dimethyl-1*H*-inden-1-yl]-6-[(1*RS*)-1-fluoroethyl]-1,3,5-triazine-2,4-diamine
CAS Chemical Name: *N*-[(1*R*,2*S*)-2,3-dihydro-2,6-dimethyl-1*H*-inden-1-yl]-6-(1-fluoroethyl)-1,3,5-triazine-2,4-diamine

Indaziflam Technical Herbicide has the following properties:

Property	Result												
Colour and physical state	Light beige powder												
Nominal concentration	96.9%												
Odour	odourless												
Density	1.23 g/cm ³ at 20°C												
Vapour pressure	<table border="0" style="width: 100%;"> <tr> <td style="text-align: left;"><u>Isomer</u></td> <td style="text-align: center;"><u>20°C</u></td> <td style="text-align: center;"><u>25°C</u></td> <td style="text-align: center;"><u>50°C</u></td> </tr> <tr> <td>A (CAS # 730979-19-8)</td> <td style="text-align: center;">2.5x10⁻⁸</td> <td style="text-align: center;">6.8x10⁻⁸</td> <td style="text-align: center;">6.9x10⁻⁶</td> </tr> <tr> <td>B (CAS # 730979-32-5)</td> <td style="text-align: center;">3.7x10⁻⁹</td> <td style="text-align: center;">1.1x10⁻⁸</td> <td style="text-align: center;">1.6x10⁻⁶</td> </tr> </table>	<u>Isomer</u>	<u>20°C</u>	<u>25°C</u>	<u>50°C</u>	A (CAS # 730979-19-8)	2.5x10 ⁻⁸	6.8x10 ⁻⁸	6.9x10 ⁻⁶	B (CAS # 730979-32-5)	3.7x10 ⁻⁹	1.1x10 ⁻⁸	1.6x10 ⁻⁶
<u>Isomer</u>	<u>20°C</u>	<u>25°C</u>	<u>50°C</u>										
A (CAS # 730979-19-8)	2.5x10 ⁻⁸	6.8x10 ⁻⁸	6.9x10 ⁻⁶										
B (CAS # 730979-32-5)	3.7x10 ⁻⁹	1.1x10 ⁻⁸	1.6x10 ⁻⁶										
pH	5.1 (1% suspension)												
Solubility in water (mg/L)	<table border="0" style="width: 100%;"> <tr> <td style="text-align: left;"><u>Isomer</u></td> <td style="text-align: center;"><u>pH 4</u></td> <td style="text-align: center;"><u>pH 9</u></td> <td style="text-align: center;"><u>Distilled water</u></td> </tr> <tr> <td>A (CAS # 730979-19-8)</td> <td style="text-align: center;">4.4</td> <td style="text-align: center;">2.8</td> <td style="text-align: center;">2.8</td> </tr> <tr> <td>B (CAS # 730979-32-5)</td> <td style="text-align: center;">1.7</td> <td style="text-align: center;">1.2</td> <td style="text-align: center;">1.2</td> </tr> </table>	<u>Isomer</u>	<u>pH 4</u>	<u>pH 9</u>	<u>Distilled water</u>	A (CAS # 730979-19-8)	4.4	2.8	2.8	B (CAS # 730979-32-5)	1.7	1.2	1.2
<u>Isomer</u>	<u>pH 4</u>	<u>pH 9</u>	<u>Distilled water</u>										
A (CAS # 730979-19-8)	4.4	2.8	2.8										
B (CAS # 730979-32-5)	1.7	1.2	1.2										

Property	Result				
n-Octanol/water partition coefficient (log K _{ow})	<u>Isomer</u>	<u>pH 2</u>	<u>pH 4</u>	<u>pH 7</u>	<u>pH 9</u>
	A (CAS # 730979-19-8)	2.0	2.8	2.8	2.8
	B (CAS # 730979-32-5)	2.1	2.8	2.8	2.8

The chemistry requirements for Indaziflam Technical Herbicide have been completed.

Health, Environmental, and Value Assessments

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

Conclusion

The revisions to the statement of product specification form for Inaziflam Technical Herbicide are complete.

References

PMRA

Number	Reference
2241416	2012, Indaziflam (BCS-AA10717) Description of the Manufacturing Process of the Technical Grade Active Substance Manufactured by Bayer CropScience, Kansas City (USA) or by Bayer CropScience AG, Dormagen (Germany) or Frankfurt (Germany) DACO: 2.11 CBI
2241417	2012, Indaziflam (BCS-AA10717) technical material manufactured by Bayer CropScience at Kansas City (USA), Dormagen (Germany) or Frankfurt (Germany) - Discussion of the formation of impurities. DACO: 2.11
2241418	Material accountability of technical Indaziflam (BCS-AA10717). DACO: 2.13.3

ISSN: 1911-8082

© Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada 2013

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.