

Evaluation Report for Category B, Subcategory 1.2 Application

Application Number: 2021-5019
Application: New Technical Grade Active Ingredient (Product Chemistry) –
 New Source (Site) New Registrant
Product: Imazamox TC Technical Herbicide
Registration Number: 34835
Active ingredient (a.i.): Imazamox
PMRA Document Number : 3435977

Purpose of Application

The purpose of this application was to register Imazamox TC Technical Herbicide, a new source of the active ingredient imazamox.

Chemistry Assessment

Common Name: Imazamox
IUPAC* Chemical Name: 2-[(4*RS*)-4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl]-5-(methoxymethyl)pyridine-3-carboxylic acid
CAS† Chemical Name: 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-5-(methoxymethyl)-3-pyridinecarboxylic acid

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Imazamox TC Technical Herbicide has the following properties:

| Property | Result | | | | | | | | | | |
|---------------------------|--|----|--------------------------|---|-----|---|-------|---|-------|-----------------|--------------|
| Colour and physical state | Off-white solid | | | | | | | | | | |
| Nominal concentration | 98.39% | | | | | | | | | | |
| Odour | Odourless | | | | | | | | | | |
| Density | 1.39 g/mL at 20°C | | | | | | | | | | |
| Vapour pressure | $< 1.3 \times 10^{-2}$ mPa at 25°C | | | | | | | | | | |
| pH | 2.35 | | | | | | | | | | |
| Solubility in water | <table> <thead> <tr> <th>pH</th> <th>Solubility (g/L) at 25°C</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>116</td> </tr> <tr> <td>7</td> <td>> 626</td> </tr> <tr> <td>9</td> <td>> 628</td> </tr> <tr> <td>Deionized water</td> <td>4.160 (20°C)</td> </tr> </tbody> </table> | pH | Solubility (g/L) at 25°C | 5 | 116 | 7 | > 626 | 9 | > 628 | Deionized water | 4.160 (20°C) |
| pH | Solubility (g/L) at 25°C | | | | | | | | | | |
| 5 | 116 | | | | | | | | | | |
| 7 | > 626 | | | | | | | | | | |
| 9 | > 628 | | | | | | | | | | |
| Deionized water | 4.160 (20°C) | | | | | | | | | | |

| Property | Result | |
|---------------------------------------|-----------|---------------------------|
| n-Octanol/water partition coefficient | <u>pH</u> | <u>log K_{ow}</u> |
| | 5 | -1.03 |
| | 7 | -2.4 |

The required chemistry data for Imazamox TC Technical Herbicide 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 acceptable to support the registration of Imazamox TC Technical Herbicide.

Additional Information Being Requested

Since this technical product is manufactured only at pilot scale before registration, five-batch data representing commercial-scale production at the approved manufacturing site will be required as post-market information after registration.

References

| PMRA Document Number | Reference |
|----------------------|---|
| 3269413 | 2019, Imazamox TGAI 5BA, [Privacy Info Removed] Amendment to Final Report, DACO: 2.13.1,2.13.2,2.13.3,2.13.4 |
| 3269414 | 2018, Imazamox TGAI 5BA, [Privacy Info Removed] Final Report, DACO: 2.13.1,2.13.2,2.13.3,2.13.4 |
| 3308042 | 2019, Qualitative and Quantitative Profile of the Test Item Imazamox (Five Batch Analysis), Amendment 2, DACO: 2.13.4 CBI |
| 3308043 | 2020, Qualitative and Quantitative Profile of the Test Item Imazamox (Five Batch Analysis), Amendment 3, DACO: 2.13.4 CBI |
| 3430773 | 2023, Manufacturing Method of Imazamox TGAI [Privacy Info Removed] Revised, DACO: 2.11 |

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