

Evaluation Report for Category L, Subcategory 1.1 Application

Application Number: 2024-5929
Application: Application Subject to Protection of Proprietary Interests in Pesticide Data (PIIP) Policy – Equivalency/Data Compensation Assessment
Applicant: Gharda Chemicals International, Inc.
Product: Gharda Bromoxynil Mixed Ester
Registration Number: 36008
Active ingredient (a.i.): Bromoxynil
PMRA Document Number: 3750655

Purpose of Application

The purpose of this application was to register Gharda Bromoxynil Mixed Ester, a new source of the active ingredient bromoxynil, based on a registered precedent product.

Chemistry Assessment

Common Name: Bromoxynil heptanoate and bromoxynil octanoate
IUPAC* Chemical Name: 2,6-dibromo-4-cyanophenyl heptanoate; 2,6-dibromo-4-cyanophenyl octanoate
CAS† Chemical Name: 2,6-dibromo-4-cyanophenyl heptanoate; 2,6-dibromo-4-cyanophenyl octanoate

* International Union of Pure and Applied Chemistry

† Chemical Abstracts Service

Gharda Bromoxynil Mixed Ester has the following properties:

Property	Result
Colour and physical state	Light brown liquid
Nominal concentration	67.33%
Odour	Aromatic organic odour
Density	1.469 g/mL at 25°C
Vapour pressure	1.32 x 10 ⁻⁴ mPa at 20°C 1.26 x 10 ⁻⁴ mPa at 25°C
pH	4.49, 1% v/v solution

Property	Result
Solubility in water	<u>Compound</u> <u>Solubility (mg/L)</u>
	Bromoxynil heptanoate 0.16
	Bromoxynil octanoate 0.26
n-Octanol/water partition coefficient	Bromoxynil octanoate: log K _{ow} = 5.39
	Bromoxynil heptanoate: log K _{ow} = 6.06

The required chemistry data for Gharda Bromoxynil Mixed Ester 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 Gharda Bromoxynil Mixed Ester.

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
3651547	2024, Product Chemistry, DACO: 2.11,2.11.1,2.11.2,2.11.3,2.11.4 CBI
3651548	2024, C.BXO.01 - Analysis and Certification of Limits (Five Batch Analysis), DACO: 2.13,2.13.1,2.13.2,2.13.3,2.13.4 CBI
3651549	2024, C.BXO.02 - Characterisation and Identification, DACO: 2.13,2.13.1, 2.13.2 CBI
3651550	2024, C.BXO.07 - Physical State, Color and Odor, DACO: 2.14.1,2.14.2,2.14.3 CBI
3651551	2024, C.BXO.05 - Melting Point or Freezing Point, DACO: 2.14.5 CBI
3651552	2024, C.BXO.06 - Relative Density, DACO: 2.14.6 CBI
3651553	2024, C.BXO.13 - Solubility in Water, DACO: 2.14.7 CBI
3651554	2024, C.BXO.10 - Solubility in Organic Solvent, DACO: 2.14.8 CBI
3651555	2024, C.BXO.12 - Vapour Pressure and Volatility, DACO: 2.14.9 CBI
3651556	2024, C.BXO.09 - Dissociation Constant, DACO: 2.14.10 CBI
3651557	2024, C.BXO.14 - n-Octanol / Water-Partition Coefficient, DACO: 2.14.11
3651558	2024, C.BXO.04 - UV Visible Absorption Spectrum, DACO: 2.14.12 CBI
3651559	2024, C.BXO.17 - Stability to Normal and Elevated Temperature, Metals and Metal Ions, DACO: 2.14.13 CBI
3651560	2024, Physical-Chemical Properties, DACO: 2.14.14 CBI
3651561	2024, C.BXO.18 - Accelerated Storage Stability Study - 14 Days (with HDPE Packaging Stability), DACO: 2.14.14 CBI
3651562	2024, C.BXO.03 - pH, DACO: 2.14.15,830.7000 CBI
3743780	2025, Bromoxynil Mixed Ester Revised Manufacturing Process 12-08-2025, DACO: 2.11.3 CBI

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