

## Evaluation Report for Category B, Subcategory 1.3, 4.6 Application

**Application Number:** 2014-2542  
**Application:** B.1.3 - Change Chemistry Specifications  
 B.4.6 - Fulfill Conditions of Product with Full Registration  
**Product:** BASF Poast Herbicide Manufacturing Concentrate  
**Registration Number:** 19053  
**Active ingredients (a.i.):** Sethoxydim  
**PMRA Document Number:** 2520092

### Purpose of Application

The purpose of this application was to fulfill the condition of full registration i.e. updated specifications and to upgrade the guarantee from minimum to nominal.

### Chemistry Assessment

**Common Name:** Sethoxydim  
**CAS Chemical Name:** 2-[1-(ethoxyimino)butyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one  
**IUPAC Chemical Name:** (5*RS*)-2-[(*EZ*)-1-(ethoxyimino)butyl]-5-[(2*RS*)-2-(ethylthio)propyl]-3-hydroxycyclohex-2-en-1-one

BASF Poast Herbicide Manufacturing Concentrate has the following properties:

Property	Result						
Colour and physical state	Reddish brown liquid						
Nominal concentration	51.4%						
Odour	Typical of compounds containing sulfur						
Density	0.972 g/mL						
Vapour pressure	< 0.13 mPa						
pH	3.95						
Solubility in water	20-4800 ppm						
n-Octanol/water partition coefficient ( $K_{ow}$ )	<table> <thead> <tr> <th>pH</th> <th>log <math>K_{ow}</math></th> </tr> </thead> <tbody> <tr> <td>5</td> <td>4.51</td> </tr> <tr> <td>7</td> <td>1.65</td> </tr> </tbody> </table>	pH	log $K_{ow}$	5	4.51	7	1.65
pH	log $K_{ow}$						
5	4.51						
7	1.65						

The chemistry requirements for BASF Poast Herbicide Manufacturing Concentrate have been fulfilled.

### **Health Assessments**

No toxicological data were required as there was no change that would impact the hazard profile.

### **Environmental and Value Assessment**

Environmental and value assessments were not required for this application.

### **Conclusion**

PMRA has reviewed information provided in support of the amendments to the subject product. Based on this review, the amendments to the subject product are acceptable for full registration.

## References

PMRA No.	Title
2441075	2014, DACO 2- Chemistry Requirements for the Registration of a Technical Grade Active Ingredient (TGAI), DACO: 2.1,2.2,2.3,2.3.1,2.4,2.5,2.6,2.7,2.8,2.9 CBI
2441076	2014, Spectral analyses for related compounds of sethoxydim, DACO: 2.13.2 CBI
2441077	2011, Analysis of Representative 5 Lots of Technical Grade STM-50A manufactured by [Privacy Removed], DACO: 2.13.2,2.13.3 CBI
2441078	2014, Final Report: Analysis of representative five lots of STM-50A, DACO: 2.13.3,2.13.4 CBI
2441079	2014, Validation of analytical method for [CBI Removed] in STM-50A, DACO: 2.13.1 CBI
2441080	2013, Validation of Analytical Method for STM-50A, DACO: 2.13.1 CBI
2441082	2019, Sethoxydim (MP) - Description of Beginning Materials and Manufacturing Process, DACO: 2.11.1,2.11.2,2.11.3 CBI
2441083	1990, Data concerning the product identity, beginning materials and manufacturing process, and formation of impurities for the technical grade of active ingredient of Poast herbicide, DACO: 2.11.1,2.11.2,2.11.3,2.11.4 CBI
2441084	1994, Sethoxydim (MP) - -Discussion of the Formation of Impurities, DACO: 2.11.4 CBI
2441085	2014, Establishing Certified Limits, DACO: 2.12.1 CBI
2441087	2014, Sethoxydim Manufacturing Concentrate - Calculation of Active Ingredient and Impurities on a Dry Weight Basis, DACO: 2.12 CBI
2441090	2014, Spreadsheet - Calculation of Active Ingredient and Impurities on a Dry Weight Basis, DACO: 2.12 CBI
2480158	2014, Spectra Analysis of Sethoxydim, DACO: 2.13.2 CBI

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