



## Evaluation Report for Category B, Subcategory 1.3 Application

**Application Number:** 2005-3435  
**Application:** Category B, subcategory 1.3 (Change in specification)  
**Product:** Rimsulfuron Technical Herbicide  
**Registration Number:** 23517  
**Active ingredients (a.i.):** Contained in product:- 99.0%  
**PMRA Document Number:** 1414486

### Background

**Confidential business information (CBI)** as defined by the PCPA 2002, is information that is designated as CBI and concerns information related to manufacturing or quality control processes related to pest control product or methods for determining the composition of a pest control product; or monetary value of sales of pest control products and other financial or commercial information provided pursuant to the PCPA 2002 or the Regulations; or the identity and concentration of the formulants and contaminants in a pest control product, other than those considered to be of health or environmental concern that are identified on a list to be made available to the public.

Compound X is a by-product formed during the manufacture of rimsulfuron technical (DPX-E9636) and is not on the list of Pest Control Formulants and Contaminants of Health and Environmental Concern. Therefore, the identity of compound X is CBI and cannot be divulged.

### Purpose of Application

The purpose of this submission is to increase the upper limit of compound X from 0.11% to 0.5% in Rimsulfuron Technical Herbicide. The nominal value remains the same at 0.1%.

### Chemistry Assessment

**Common Name:** Rimsulfuron  
**IUPAC Chemical Name:** 1-(4,6-dimethoxypyrimidin-2-yl)-3-(3-ethylsulfonyl-2-pyridylsulfonyl)urea  
**CAS Chemical Name:** N-[[4,6-dimethoxy-2-pyrimidinyl]amino]carbonyl]-3-(ethylsulfonyl)-2-pyridinesulfonamide

Rimsulfuron Technical Herbicide has the following properties:

| Property                              | Result   |    |              |   |       |   |       |
|---------------------------------------|--|----|--------------|---|-------|---|-------|
| Colour and physical state             | colourless crystal   |    |              |   |       |   |       |
| Nominal concentration                 | 99.0%  |    |              |   |       |   |       |
| Odour                                 | not provided   |    |              |   |       |   |       |
| Specific Gravity at 25°C              | 0.784  |    |              |   |       |   |       |
| Vapour pressure                       | $1.5 \times 10^{-3}$ mPa   |    |              |   |       |   |       |
| pH                                    | 4.5  |    |              |   |       |   |       |
| Solubility in water                   | <10 mg/L (unbuffered)<br>7.3 g/L (buffered, pH 7)  |    |              |   |       |   |       |
| n-Octanol/water partition coefficient | <table> <thead> <tr> <th>pH</th> <th>Log <math>K_{ow}</math></th> </tr> </thead> <tbody> <tr> <td>5</td> <td>0.288</td> </tr> <tr> <td>7</td> <td>-1.47</td> </tr> </tbody> </table> | pH | Log $K_{ow}$ | 5 | 0.288 | 7 | -1.47 |
| pH                                    | Log $K_{ow}$   |    |              |   |       |   |       |
| 5                                     | 0.288  |    |              |   |       |   |       |
| 7                                     | -1.47  |    |              |   |       |   |       |

The chemistry requirements for Rimsulfuron Technical Herbicide have been completed.

### Health Assessments

In order to assess the health risk associated with an increase in the upper limit of compound X we have referred to other published documents in lieu of a toxicity data package. The toxicology profile of compound X is well characterized. Environment Canada has conducted a thorough review and determined that it is not CEPA toxic. The increase of compound X from 0.11% to 0.5% does not represent a significant increase in risk to pesticide handlers and is not expected to alter the residues in food and feed crops treated with end use products containing rimsulfuron technical.

### Environmental Assessment

Environmental assessments were not required since the use pattern, including host crops, application rates and timings, of the component products remained unchanged and compound X is not CEPA toxic.

### Value Assessment

A value assessment is not required for a manufacturing concentrate.

## Conclusion

An assessment of the submission to amend the specification for rimsulfuron has been conducted. An increase in the percentage of this manufacturing by-product from 0.11% to 0.5% does not represent a significant increase in risk.

## References

### 7.1.1 Studies/Information Provided by Applicant/Registrant

- 1087907 2005, Technical Grade DPX-E9636 (Rimsulfuron) Manufacturing Description and Formation of Impurities, DACO: 2.11.1,2.11.2,2.11.3
- 1087908 2005, Justification of the Proposed Increase in the Level of Phenol in Rimsulfuron Technical from 0.11% max to 0.5% max in Canada, N/S, N/S, MRID: N/S, DACO: 2.11.4,2.12.1,2.13.4
- 1087909 2002, Toxicological Review of Phenol, N/S, N/S, MRID: N/S, DACO: 2.11.4,2.13.4
- 1087910 2005, Establishing Certified Limits. Note to Reviewer., N/S, N/S, MRID: N/S, DACO: 2.12.1
- 1087911 2001, Technical Grade Rimsulfuron Analysis and Certification of Product Impurities, N/S, N/S, MRID: N/S, DACO: 2.13.1,2.13.3
- 1087908 2005, **Justification of the Proposed Increase in the level of X a Manufacturing by-product in Rimsulfuron Technical from 0.11% max to 0.5% max in Canada.** E.I. du Pont de Nemours and Company, Dupont Crop Protection, Global Technology Division. Stine-Haskell Research Centre Newark, Delaware 19714-0030. DuPont Project Identification DuPont-17481. June 28 2005.
- 1358691 2000 Canadian Environmental Protection Act.. **Priority Substances List Assessment Report, X Environment Canada.** 351 St. Joseph Blvd, Hull Quebec K1A 0H3 Health Canada, Turney's Pasture, Ottawa, Ontario K1A 0L2

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