

## Bensulfuron-methyl

## Chemical Properties

|                   |                                                                        |
|-------------------|------------------------------------------------------------------------|
| CAS No.:          | 83055-99-6                                                             |
| Formula:          | C <sub>16</sub> H <sub>18</sub> N <sub>4</sub> O <sub>7</sub> S        |
| Molecular Weight: | 410.4                                                                  |
| Appearance:       | N/A                                                                    |
| Storage:          | 0-4°C for short term (days to weeks), or -20°C for long term (months). |

## Biological Description

|             |                                                                    |
|-------------|--------------------------------------------------------------------|
| Description | Bensulfuron-methyl is a broad-spectrum herbicide for paddy fields. |
|-------------|--------------------------------------------------------------------|

## Solubility Information

|            |                                                                                  |
|------------|----------------------------------------------------------------------------------|
| Solubility | DMSO: Soluble<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|----------------------------------------------------------------------------------|

## Preparing Stock Solutions

|       | 1mg      | 5mg       | 10mg      |
|-------|----------|-----------|-----------|
| 1 mM  | 2.437 mL | 12.183 mL | 24.366 mL |
| 5 mM  | 0.487 mL | 2.437 mL  | 4.873 mL  |
| 10 mM | 0.244 mL | 1.218 mL  | 2.437 mL  |
| 50 mM | 0.049 mL | 0.244 mL  | 0.487 mL  |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

## Reference

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3. Zhou J, Wang Z, Huang Z, Lu C, Han Z, Zhang J, Jiang H, Ge C, Yang J. Expression of sulfur uptake assimilation-related genes in response to cadmium, bensulfuron-methyl and their co-contamination in rice roots. *J Environ Sci (China).* 2014 Mar 1;26(3):650-61. doi: 10.1016/S1001-0742(13)60446-5. PubMed PMID: 25079279.
4. Zhang Y, Wang J, Wang G, Gao C, Yan Y, Wen B. Optimization of derivatization procedure and gas chromatography-mass spectrometry method for determination of bensulfuron-methyl herbicide residues in water. *J Chromatogr B Analyt Technol Biomed Life Sci.* 2015 Jul 15;995-996:31-7. doi: 10.1016/j.jchromb.2015.05.008. Epub 2015 May 14. PubMed PMID: 26021849.

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