



Product Information Sheet

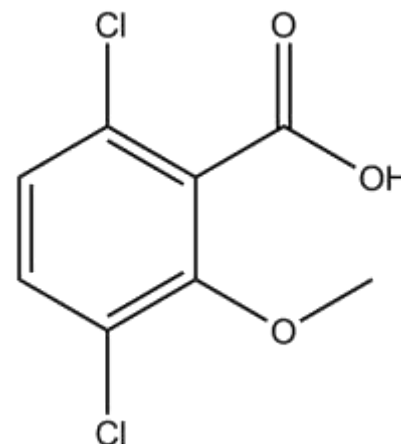
D159

Dicamba

Synonym: 3,6-Dichloro-o-anisic Acid
CAS: 1918-00-9
Formula: C₈H₆Cl₂O₃
MW: 221.04 g/mol

Properties:

Form: Powder
Appearance: White to Beige Crystalline
Application: Plant Growth Regulator
Solubility: Slightly Soluble in Water. More Soluble in KOH.
Typical Working Concentration: Varies by application, should be determined by the end user.
Storage Temp: 2-8°C
Stock Solution Storage Temp: 2-8°C
Other Notes: Plant Tissue Culture Tested; For Research Use Only



Application Notes:

Dicamba is an auxinic herbicide which can aid in adventitious root formation, inducing somatic embryos, cell division, callus formation and growth, inhibition of axillary buds, inhibition of root elongation.

Typical working concentration of dicamba varies by application and plant species. Dicamba concentrations to inducing embryogenic callus in banana at 90.5 µM and rice at 4.5 – 18.1 µM have been reported (George *et al.* 2008). Corn callus has been induced with 30 µM dicamba on seedlings (Conger *et al.* 1987).

The *DMO* (dicamba monooxygenase) gene was isolated from a soil bacterium (Behrens *et al.* 2007) and introduction to a crop allows for dicamba to be used as a selection agent.

Dicamba is stable to autoclaving (Fogerty *et al.* 1994).

PhytoTechnology Laboratories® also carries Dicamba Solution (1 mg/mL), Product No. D165.

Please Note: While PhytoTechnology Laboratories™ tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

References:

- Behrens MR, Mutlu N, Chakraborty S, Dumitru R, Jiang WZ, LaVallee BJ, Herman PL, Clemente TE, and DP Weeks (2007) Dicamba Resistance: Enlarging and Preserving Biotechnology-Based Weed Management Strategies. *Science* Vol. 316:1185-1188.
- Conger BV, Novak FJ, Afza R, and K Erdelsky (1987) Somatic embryogenesis from cultured leaf segments of *Zea mays*. *Plant Cell Reports*. Vol. 6(5):345-347
- George EF, Hall MA, and GJ De Klerk (2008). Plant Propagation by Tissue Culture. Volume 1. The Background, 3rd Ed. Springer. The Netherlands
- Fogarty AM, Traina SJ, and OH Tuovinen (1994) Determination of Dicamba by Reverse-Phase HPLC. *J. Liq. Chrom.* 17(12):2667-2674.
- Merck 13, 3065

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