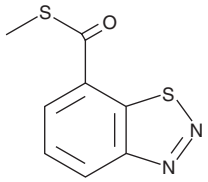
PRODUCT INFORMATION

Acibenzolar-S-methyl

Item No. 24212

CAS Registry No.:	135158-54-2
Formal Name:	1,2,3-benzothiadiazole-7-carbothioic acid, S-methyl ester
Synonyms:	CGA 245704, Benzothiadiazole
MF:	$C_8H_6N_2OS_2$
FW:	210.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 254, 291, 326 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Acibenzolar-S-methyl is supplied as a solid. A stock solution may be made by dissolving the acibenzolar-S-methyl in the solvent of choice, which should be purged with an inert gas. Acibenzolar-S-methyl is soluble in the organic solvent dimethyl formamide (DMF) at a concentration of approximately 1 mg/ml mg/ml. Acibenzolar-S-methyl is slightly soluble in ethanol.

Acibenzolar-S-methyl is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, acibenzolar-S-methyl should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Acibenzolar-S-methyl has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Acibenzolar-S-methyl is a fungicide that induces systemic acquired resistance (SAR) in a variety of plants leading to infection resistance.[1] It induces resistance in wheat concomitant with expression of wheat chemically-induced (WCI) genes when applied at 30 g per hectare.[2] Acibenzolar-S-methyl | (0.4 g/L) is protective against *V. inaequalis* in apple trees when used in combination with light integrated pest management (IPM) and increases fruit yield in comparison to the IPM-only group.[1] Formulations containing acibenzolar-S-methyl have been used in the control fungi in industrial, commercial, and residential areas.

References

1. Marolleau, B., Gaucher, M., Heintz, C., *et al.* When a plant resistance inducer leaves the lab for the field: Integrating ASM into routine apple protection practices. *Front. Plant Sci.* **8:1938**, (2017).
2. Görlach, J., Volrath, S., Knauf-Beiter, G., *et al.* Benzothiadiazole, a novel class of inducers of systemic acquired resistance, activates gene expression and disease resistance in wheat. *Plant Cell* **8(4)**, 629-643 (1996).

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