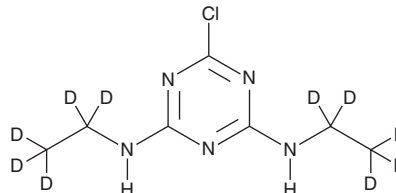


PRODUCT INFORMATION



Simazine-d₁₀ Item No. 35209

CAS Registry No.: 220621-39-6
Formal Name: 6-chloro-N²,N⁴-di(ethyl-1,1,2,2,2-d₅)-1,3,5-triazine-2,4-diamine
MF: C₇H₂ClD₁₀N₅
FW: 211.7
Chemical Purity: ≥98% (Simazine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₁₀); ≤1% d₀
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

Simazine-d₁₀ is intended for use as an internal standard for the quantification of simazine (Item No. 36491) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Simazine-d₁₀ is supplied as a solid. A stock solution may be made by dissolving the simazine-d₁₀ in the solvent of choice, which should be purged with an inert gas. Simazine-d₁₀ is slightly soluble in DMSO and dimethyl formamide.

Description

Simazine is a triazine herbicide.¹⁻³ Pre-emergent application of simazine (1 kg/ha) controls annual and perennial monocot and dicot weeds and increases crop yield in sorghum crops.¹ It also controls weed emergence in kharif maize crops when applied at a concentration of 2 kg/ha.² Simazine (200 and 400 mg/kg) induces spleen cell apoptosis and reduces the proliferation of B and T cells in mice.³ Formulations containing simazine have been used in the control of broadleaf weeds and annual grasses in agriculture.

References

1. Patro, G.K., Tosh, G.C., and Nayak, B.C. Weed control in sorghum through cultural and chemical methods. *Indian J. Agric. Sci.* **42**(12), 1128-1131 (1972).
2. Jadhav, S.N. and Khuspe, V.S. Relative efficacy of varying levels and times of application of simazine and atrazine on the control of weeds and yield of kharif maize (*Zea mays* Linn). *J. Maharashtra Agric. Univ.* **6**(2), 169-171 (1981).
3. Ren, R., Sun, D.-J., Yan, H., *et al.* Oral exposure to the herbicide simazine induces mouse spleen immunotoxicity and immune cell apoptosis. *Toxicol. Pathol.* **41**(1), 63-72 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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