

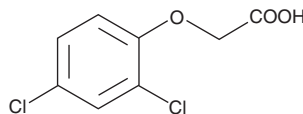
PRODUCT INFORMATION



2,4-Dichlorophenoxy Acetic Acid

Item No. 10190

CAS Registry No.: 94-75-7
Formal Name: 2-(2,4-dichlorophenoxy)-acetic acid
Synonyms: 2,4-D, Diclordon, Vidon 638
MF: C₈H₆Cl₂O₃
FW: 221.0
Purity: ≥97%
UV/Vis.: λ_{max}: 205, 229, 285 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

2,4-Dichlorophenoxy acetic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the 2,4-dichlorophenoxy acetic acid in the solvent of choice, which should be purged with an inert gas. 2,4-Dichlorophenoxy acetic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 2,4-dichlorophenoxy acetic acid in these solvents is approximately 30 mg/ml.

2,4-Dichlorophenoxy acetic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 2,4-dichlorophenoxy acetic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 2,4-Dichlorophenoxy acetic acid has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

2,4-D is a synthetic auxin, a class of plant growth regulators, that is often used as a supplement in plant cell culture media. It is also an active ingredient in herbicides that controls root elongation and cell production by disrupting the actin cytoskeleton.¹ Formulations containing 2,4-dichlorophenoxy acetic acid have been used as herbicides in agriculture, as well as in aquatic and residential areas.

Reference

1. Rahman, A., Bannigan, A., Sulaman, W., *et al.* Auxin, actin and growth of the *Arabidopsis thaliana* primary root. *Plant Journal* **50**, 514-528 (2007).

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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