



Eastman DE solvent

**Polar, low-odor, water-miscible solvent
for crop protection formulations**

CAS No. 111-90-0

DE solvent (diethylene glycol monoethyl ether) is a highly polar, water-miscible solvent with low odor, low VOC and a slow evaporation rate. It provides strong solvency for a broad range of crop protection active ingredients, including herbicides, fungicides and insecticides. With its balanced polarity and compatibility profile, DE solvent can be used as a primary solvent or cosolvent to support formulation stability in DC, SL and EC systems.

Applications

DE solvent is designed for use in agricultural crop protection and non-crop professional uses such as turf and ornamentals, where strong solvency, formulation robustness and favorable regulatory acceptance are required.

- Solvent for dispersible concentrate (DC) formulations
- Cosolvent in soluble concentrate (SL) formulations
- Cosolvent in emulsifiable concentrate (EC) formulations

Key attributes

Formulation performance

- Excellent solvent activity for a wide range of crop-protection active ingredients
- Effective compatibilizer for coformulants
- Supports stable, homogeneous formulations across multiple formulation types

Handling and safety

- Miscible with water and most organic solvents
- Low viscosity
- Low freezing point
- Low odor, low VOC and slow evaporation rate
- No hazard pictograms

Regulatory and sustainability

- Approved as an inert ingredient for use in food-use and nonfood-use pesticide products*
- Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulation compliant
- Readily biodegradable

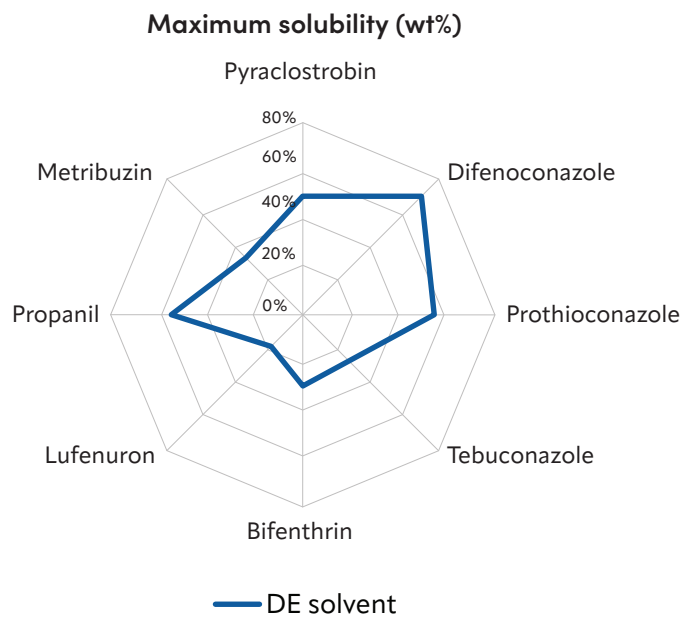
*Approved by the U.S. EPA. For other countries, refer to the local applicable regulatory listings and use-specific approvals.

Regulatory compliance

DE solvent is listed as an inert ingredient regulated by the U.S. EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) with permitted uses and limitations defined in applicable EPA regulations (40 CFR). DE solvent is approved for both food and nonfood uses. For details on specific applications and country-specific limitations, refer to the applicable U.S. EPA inert ingredient listings. For details on approved uses and country-specific limitations, please refer to the applicable U.S. EPA inert ingredient listings.

Solvency performance across active ingredients

DE solvent provides consistent solvency across multiple crop-protection active ingredients and chemical classes, supporting versatile formulation platforms. The following figure shows representative maximum solubility levels in DE solvent.



Representative data for formulation guidance only.

Property	Typical value
Boiling point (760 mm Hg)	198°C (388°F)
Flash point (tag closed cup)	91°C (195°F)
Freezing point	−90°C (−130°F)
Hansen solubility parameters — total	MPa _{1/2}
Hansen solubility parameters — nonpolar (dD)	16.1 MPa _{1/2}
Hansen solubility parameters — polar (dP)	9.2 MPa _{1/2}
Hansen solubility parameters — hydrogen bonding (dH)	12.2 MPa _{1/2}
Liquid viscosity (20°C)	4.5 mPa·s
Solubility in water (20°C)	Complete
Specific gravity (20°C/20°C)	0.99
Surface tension (20°C)	32.2 dynes/cm
Vapor pressure (20°C)	0.095 mm Hg

The suitability of Eastman DE solvent for a specific formulation should be confirmed by the customer under their intended use and regulatory conditions. Regulatory status may vary by geography and application.

Protect your crops.

Learn how Eastman DE solvent can support your formulation.



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