



Ethyl Vinyl Ether (EVE)

PRODUCT IN FOCUS



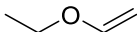
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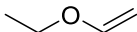
INTRODUCTION

Ethyl vinyl ether is a reactive, flammable, volatile liquid with a strong ether-like odor. Featuring two conjugated functional groups—an ether and an alkene—this molecule act as important building block, especially in polymer synthesis. Its applications span multiple industrial sectors, including semiconductors, coatings, inks, fragrances, adhesives, paints, oil viscosity modifiers and pharmaceuticals, with promising potential as a dietary supplement.

Manufacture

i) EVE can be synthesized through the base-catalyzed reaction of acetylene and ethanol- **Reppe method**,
ii) Dehydration of ethylene glycol mono-ethyl ether using silica supported potassium phosphate,
iii) Transvinylation of vinyl phenyl ether and
iv) Vinylation of ethanol using 10-vinylphenothiazine are the few common methods available to prepare ethyl vinyl ether.

Synonyms	Ethoxyethylene, Vinamar
CAS no.	109-92-2
EINECS no.	203-718-4
Molecular formula	C_4H_8O
Molecular weight	72.11
Structure	



Applications

Ethyl vinyl ether is a key monomer and versatile intermediate in organic chemistry. The main areas of application include:

- ⚡ **Polymer Chemistry:** Used to prepare poly(ethyl vinyl ether) and copolymers with maleic anhydride, acrylates, or vinyl esters. These copolymers find applications in: adhesives & coatings, dispersants, personal care and cosmetic formulations. Certain derivatives of EVE-based copolymers are used in photoresist formulations for **semiconductor industries**.
- ⚡ **Pharmaceutical & Fine Chemicals:** Serves as a building block in the synthesis of heterocycles, pharmaceuticals, and active pharmaceutical ingredients (APIs). Also, EVE is widely used as a reagent to introduce vinyl ether **protecting groups** for aldehydes and ketones, forming acetals that can later be removed under mild acidic conditions.
- ⚡ **Substrate for various organic reactions:** Ethyl Vinyl Ether could be employed as a substrate for reactions such as Diels–Alder reaction, Claisen rearrangement, Nazarov cyclization, etc. for the synthesis of many valuable chemicals due to the electron-rich nature of the C=C bond. Ethyl Vinyl Ether can also serve as monomers in polymer chemistry.
- ⚡ **Agrochemicals:** Used as a starting material or intermediate for certain pesticides, herbicides, and fungicides due to its high reactivity with electrophiles.
- ⚡ **UV-Curing Systems:** Used in UV-curable inks, coatings, and adhesives (vinyl ether monomers copolymerize rapidly under cationic UV curing).



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SPECIFICATIONS

Test	Unit	Specification
Appearance	-	Colorless transparent liquid
Purity (By GC)	% Area	≥99.0
Ethanol	%	≤0.1
Water Content	%	≤0.3
KOH	ppm	100

STORAGE & PRECAUTION

Keep sealed at room temperature, protected from light

PACKING

Globally compliant packaging

REACH Status

Not registered

ExSyn offers Ethyl Vinyl Ether (EVE) on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.