

# Ethers

## CHEMICAL FAMILY

Ethers do not occur in essential oils as simply ethers. Many ethers in essential oils are phenolic, derived from the hydroxyl group of the phenol. This occurs when hydrogen from the hydroxyl group breaks off and is replaced with a short hydrocarbon chain. Because of the stability of the benzene ring and the methyl group (-CH<sub>3</sub>), they are considered effective in reducing pain and muscle spasms. Phenolic ethers are notarized as being strong in odor and strong in action.

### THERAPEUTIC PROPERTIES

ANALGESIC	ANTI-INFECTIOUS	ANTISPASMODIC
CARMINATIVE	HEPTOTOXIC	GENOTOXIC
NEUROTOXIC	ABORTIFACIENT	PSYCHOTROPIC
ESTROGEN-LIKE		

### COMMON ETHERS CHEMICALS

#### MOLECULAR STRUCTURES

methyl chavicol (estragole)	eugenol	p-cresyl methyl ether
trans-anethole (same as (E)-anethole)	safrole	myristicin
elemicin	apiole	

ESSENTIAL OILS CONTENT OF ETHERS  
ETHERS % CONTENTS

Essential Oils	Percentage
Anise	88%
Tarragon	75%
Fennel	66%
Basil	65%
Ylang Ylang	12%
Parsley	11%
Dill	11%
White Camphor	10%
German Chamomile	9%
Davana	6%
Marjoram	6%