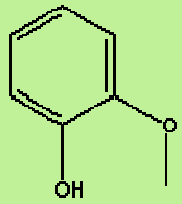
GUAIACOL



PRODUCT IDENTIFICATION	
CAS NO.	90-05-1
EINECS NO.	201-964-7
FORMULA	$C_7H_8O_2$
MOL WT.	124.14
H.S. CODE	
TOXICITY	
SYNONYMS	Pyrocatechol monomethyl ether; Pyroguaiac acid; 1-hydroxy-2-methoxybenzene; o-Hydroxyanisole; 2-Methoxyphenol; o-Methylcatechol; Catechol monomethyl ether; Guaicol; Methyl Catechol; Hydroxy-2-methoxybenzene;
DERIVATION	
CLASSIFICATION	

GENERAL DESCRIPTION OF DIHYDROXYBENZENE

There are three isomeric compounds of dihydroxybenzene molecule structure, which all have traditional names respectively. The ortho (1,2) isomer is called catechol (Also known as catechin; pyrocatechol; pyrocatechuic acid), which forms clear crystals used as a photographic developer in solution and as a starting material to produce synthetic catecholamines which have important physiological effects as neurotransmitters and hormonesany (such as epinephrine, adrenaline, norepinephrine, and dopamine). The meta (1,3) isomer is resorcinol (also known as resorcin), which forms clear needle crystals used in the production of diazo dyes and plasticizers. It is produced by sulfonating benzene with fuming sulfuric acid and fusing the resulting benzenedisulfonic acid with caustic soda. Resorcinol is used in resins as an UV absorber. It is used in manufacturing fluorescent and leather dyes and adhesives. Reaction with formaldehyde produces resins (resorcinol formaldehyde resins) used to make rayon and nylon. It is used as a pharmaceutical to treat acne and other greasy skin conditions in combination with other acne treatments such as sulfur. It is used as an anti-dandruff agent in shampoo and sunscreen cosmetics. It is also used as a chemical intermediate to synthesis pharmaceuticals and other organic compounds. The para (1,4) isomer is hydroquinone (also known as quinol), which forms clear prisms used as a photographic reducer and developer (except in color film). It is formed in large quantities by chemical reduction of benzoquinone. This compound is a general-purpose inhibitor, stabilizer, antioxidant, and intermediate. One of the major uses of hydroquinone is as an intermediate to make other inhibitors, stabilizers, antioxidants, agricultural chemicals, and dyes. Resorcinol and its derivatives are used in resins as UV absorbers. They are used in manufacturing fluorescent and leather dyes and adhesives (resorcinol formaldehyde resins). They are used as pharmaceuticals to treat acne and other greasy skin conditions in combination with other acne treatments such as sulfur. They are used as an anti-dandruff agent in shampoo and sunscreen cosmetics.

PHYSICAL AND CHEMICAL PROPERTIES	
PHYSICAL STATE	amber crystals
MELTING POINT	28 - 32 C
BOILING POINT	204 - 206 C
SPECIFIC GRAVITY	1.12
SOLUBILITY IN WATER	Slightly soluble
pH	
VAPOR DENSITY	4.3
AUTOIGNITION	385 C
NFPA RATINGS	Health: 2 Flammability: 2 Reactivity: 0
REFRACTIVE INDEX	1.5430

FLASH POINT	82 C
STABILITY	Stable under ordinary conditions. Light, air sensitive.
APPLICATIONS	
Guaiacol is the methyl ether of pyrocatechol. It is a main constituent of creosote obtained from wood tar (mainly beech) by distillation mostly between 203 and 220 C. It is synthesized from anisole also. The dimethyl ether of pyrocatechol is called veratrol. They and their derivatives are used as an external antiseptic, expectorant, gastric sedative, deodorant, and as a parasiticide. Methoxyphenols are used in manufacturing stabilizers and antioxidants for plastics and rubbers. They are also used in analgesics, local anesthetic, flavorings, biocides, antiseptics. 2-Methoxyphenol is used in manufacturing vanillin and other flavorings.	
SALES SPECIFICATION	
APPEARANCE	off-white crystals
ASSAY	97.0% min
MOISTURE	0.2% max
TRANSPORTATION	
PACKING	200kgs in drum
HAZARD CLASS	Not regulated
UN NO.	
OTHER INFORMATION	
Hazard Symbols: XN, Risk Phrases: 22-36/38, Safety Phrases: 26	
MEMBERS OF EXPECTORANT	