GUAIACOL

PRODUCT IDENTIFICATION
CAS NO. 90-05-1
EINECS NO. 201-964-7
FORMULA C₇H₈O₂
MOL WT. 124.14
H.S. CODE

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 hormones (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.

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
<table>
<thead>
<tr>
<th><strong>FLASH POINT</strong></th>
<th>82 C</th>
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<td><strong>STABILITY</strong></td>
<td>Stable under ordinary conditions. Light, air sensitive.</td>
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**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**

<table>
<thead>
<tr>
<th><strong>APPEARANCE</strong></th>
<th>off-white crystals</th>
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<tbody>
<tr>
<td><strong>ASSAY</strong></td>
<td>97.0% min</td>
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<tr>
<td><strong>MOISTURE</strong></td>
<td>0.2% max</td>
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**TRANSPORTATION**

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<tr>
<th><strong>PACKING</strong></th>
<th>200kgs in drum</th>
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<tr>
<td><strong>HAZARD CLASS</strong></td>
<td>Not regulated</td>
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**UN NO.**

Hazard Symbols: XN, Risk Phrases: 22-36/38, Safety Phrases: 26

**MEMBERS OF EXPECTORANT**