



Qualikems Lifesciences Pvt. Ltd.

(Formerly known as Qualikems finechem Pvt Ltd)

Works: Plot No. 68-69, G.I.D. C Industrial Estate, Nandesari, Vadodara-391340 (Gujarat) Telefax: 91-265-2841531, 2841532, 2841534, 2841535.

Email: salesindia@qualikems.com, www.qualikems.com

Material Safety Data Sheet

Guaiacol

Section 1: Chemical Product and Company Identification

Product Name: Guaiacol

CAS#: 90-05-1

Synonym: 2-Methoxyphenol

Chemical Name: Guaiacol

Chemical Formula: C₇H₈O₂

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Guaiacol	90-05-1	100

Toxicological Data on Ingredients: Guaiacol: ORAL (LD50): Acute: 520 mg/kg [Rat]. 621 mg/kg [Mouse]. DERMAL (LD50): Acute: 4600 mg/kg [Rabbit].

Section 3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Combustible.

Auto-Ignition Temperature: Not available.

Flash Points: OPEN CUP: 82°C (179.6°F).

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances:

Flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:

Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids, alkalis.

Storage:

Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance:

Liquid or solid. (Actually a very low melting point solid which may be received in liquid form depending on shipping conditions)

Odor: Characteristic. Sweetish. Phenolic-like.

Taste: Not available.

Molecular Weight: 124.13 g/mole

Color: White to yellowish.

pH (1% soln/water): Not available.

Boiling Point: 205°C (401°F)

Melting Point: 27-32°C

Critical Temperature: Not available.

Specific Gravity: 1.1287 (Water = 1)

Vapor Pressure: 0 kPa (@ 20°C)

Vapor Density: 4.27 (Air = 1)

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: The product is more soluble in oil; $\log(\text{oil/water}) = 1.3$

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, diethyl ether.

Solubility:

Soluble in diethyl ether. Very slightly soluble in cold water. Partially soluble in glycerol. Miscible with alcohol, chloroform, oils, glacial acetic acid. Slightly soluble in petroleum ether. Soluble in sodium Hydroxide solution, alkalies, Miscible with esters, benzene, toluene

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, acids, alkalis.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Air Sensitive. Light Sensitive. Darkens on exposure to air and light. Also incompatible with acid chlorides, and acid anhydrides.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals:

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 520 mg/kg [Rat]. Acute dermal toxicity (LD50): 4600 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 7570 8 hours [Mouse].

Chronic Effects on Humans: May cause damage to the following organs: central nervous system (CNS).

Other Toxic Effects on Humans:

Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).

Special Remarks on Toxicity to Animals:

Lowest Published Lethal Dose LDL [Human] - Route: Oral; Dose: 43 mg/kg.

Special Remarks on Chronic Effects on Humans: May affect genetic material

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: Causes skin irritation. It is readily absorbed through skin especially if skin is abraded. Eyes: Causes eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause digestive tract irritation with nausea, vomiting and diarrhea. May affect metabolism, behavior/Central nervous system (general anesthetic, tremors).

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Guaiacol

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

R22- Harmful if swallowed. R36/38- Irritating to eyes and skin. S2- Keep out of the reach of children. S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 2

Reactivity: 0

Personal Protection: h

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 2

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

Section 16: Other Information

MSDS Creation Date: 12/12/1997

Revision #6 Date: 08/29/2004

Revision #7 Date: 08/28/2009

Revision #8 Date: 08/27/2014

Revision #9 Date: 08/26/2019

Revision #10 Date: 08/25/2024

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall QUALIKEMS be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if QUALIKEMS has been advised of the possibility of such damages.

www.qualikems.com