

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	Air and light sensitive material. Combustible material; avoid heat and sources of ignition. Harmful compound, minimize exposure. Irritating to skin, eyes, and the respiratory system.	

Section I. Chemical Product and Company Identification

Chemical Name	Guaiacol		
Catalog Number	M0121	Supplier	TCl America 9211 N. Harbortgate St. Portland OR 1-800-423-8616
Synonym	o-Methoxyphenol		
Chemical Formula	C ₇ H ₆ O ₂		
CAS Number	90-05-1	In case of Emergency Call	Chemtrec® (800) 424-9300 (U.S.) (703) 527-3887 (International)

Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Guaiacol	90-05-1	Min. 98.0 (GC)	Not available.	Rat LD ₅₀ (oral) 520mg/kg Rabbit LD ₅₀ (dermal) 4600mg/kg Mouse LD ₅₀ (oral) 621mg/kg

Section III. Hazards Identification

Acute Health Effects	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY Not available. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

Section IV. 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. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
Ingestion	INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. SEEK IMMEDIATE MEDICAL ATTENTION in case of ingestion of a radioactive material.

Section V. Fire and Explosion Data

Flammability	Combustible.	Auto-Ignition	Not available.
Flash Points	82°C (179.6°F).	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO ₂).		
Fire Hazards	Not available.		
Explosion Hazards	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	Combustible. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. Consult with local fire authorities before attempting large scale fire-fighting operations.		

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Emergency phone number (800) 424-9300

Section VI. Accidental Release Measures

Spill Cleanup Instructions	Air and light sensitive material. Harmful material. Irritating material. Combustible material. 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 the spill by rinsing any contaminated surfaces with copious amounts of water. Consult federal, state, and/or local authorities for assistance on disposal.
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Section VII. Handling and Storage

Handling and Storage Information	AIR AND LIGHT SENSITIVE. HARMFUL. IRRITANT. COMBUSTIBLE. Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. DO NOT ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively. Always store away from incompatible compounds such as oxidizing agents, alkalis (bases).
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Section VIII. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent.
	
Exposure Limits	Not available.

Section IX. Physical and Chemical Properties

Physical state @ 20°C	Solid. (White to yellow crystals or liquid.)	Solubility	One gram dissolves in 60-70 ml water, 1 ml glycerol. Miscible with alcohol, chloroform, ether, oils, glacial acetic acid. Slightly soluble in petroleum ether. Soluble in sodium hydroxide solution. Forms a sparingly soluble compound with moderately concentrated potassium hydroxide.
Specific Gravity	1.129 (water=1)		
Molecular Weight	124.14	Partition Coefficient	Not available.
Boiling Point	204 to 206°C (399.2 to 402.8°F)	Vapor Pressure	0.11mm Hg @25°C
Melting Point	27 to 29°C (80.6 to 84.2°F)	Vapor Density	4.27 (Air = 1)
Refractive Index	1.5429 @ 20°C	Volatility	Not available.
Critical Temperature	Not available.	Odor	Slightly phenolic.
Viscosity	Not available.	Taste	Not available.

Section X. Stability and Reactivity Data

Stability	This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability	Avoid excessive heat and light. Air sensitive. May decompose on exposure to light.
Incompatibilities	Reactive with strong oxidizing agents, strong alkalis (bases).

Section XI. Toxicological Information

RTECS Number	SL7525000
Routes of Exposure	Eye Contact. Ingestion. inhalation.
Toxicity Data	Rat LD ₅₀ (oral) 520mg/kg Rabbit LD ₅₀ (dermal) 4600mg/kg Mouse LD ₅₀ (oral) 621mg/kg
Chronic Toxic Effects	CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY Not available. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.
Acute Toxic Effects	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

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Emergency phone number (800) 424-9300

Section XII. Ecological Information

Ecotoxicity Not available.

Environmental Fate o-Methoxyphenol occurs naturally in animal wastes and in essential oil of plants. Some of the man-made sources of o-methoxyphenol are biomass combustion, wood burning, diesel exhaust, tobacco smoke, coal gasification and effluents from wood and straw pulping, brewing industry, leather tanning, organic and plastic industry and timber industry. Both photolysis and hydrolysis of o-methoxyphenol do not appear to be important in the environment. Aerobic and anaerobic biodegradation may result in the removal of o-methoxyphenol from soil. An experimental log K_{oc} value indicates it may be very mobile from soil. An estimated Henry's Law constant of 9.0X10⁻⁷ suggests volatilization should not be important from environmental waters. Based on the estimated reactivity of phenol with peroxy radicals, the reaction of o-methoxyphenol with photochemically generated peroxy radicals in water may be important. o-Methoxyphenol may undergo some biodegradation in water, based upon screening studies. Neither sorption to sediment and suspended solids in water nor bioconcentration in aquatic organisms are expected to be important in water. The half-life for the reaction of o-methoxyphenol with photochemically generated hydroxyl radicals in the atmosphere has been estimated to be 0.5 day. However, the reaction of o-methoxyphenol with nitrate radicals may be even more important than its reaction with hydroxyl radicals. The detection of o-methoxyphenol in rain water suggests partial removal from the atmosphere by wet deposition. Humans may be exposed from food products that contain o-methoxyphenol as well as from environmental contamination, especially near pulp and paper plants(SRC).

Section XIII. Disposal Considerations

Waste Disposal Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

Section XIV. Transport Information

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

PIN Number Not applicable.

Proper Shipping Name Not applicable.

Packing Group (PG) Not applicable.

DOT Pictograms

**Section XV. Other Regulatory Information and Pictograms**

TSCA Chemical Inventory (EPA) This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list.

WHMIS Classification (Canada) CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).

EINECS Number (EEC) 201-964-7

EEC Risk Statements R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R36/37/38- Irritating to eyes, respiratory system and skin.

Japanese Regulatory Data Not available.

Section XVI. Other Information

Version 1.0
Validated on 6/28/2002.
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Notice to Reader

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, household, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.