

## MATERIAL SAFETY DATA SHEET

Date Printed: 04/01/2008

Date Updated: 02/01/2006

Version 1.8

## Section 1 - Product and Company Information

Product Name GUAIACOL  
Product Number G5502  
Brand SIGMA

Company Sigma-Aldrich  
Address 3050 Spruce Street  
SAINT LOUIS MO 63103 US

Technical Phone: 800-325-5832  
Fax: 800-325-5052  
Emergency Phone: 314-776-6555

## Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313 No
GUAIACOL	90-05-1	No

Formula C7H8O2  
Synonyms Guajacol \* Guaiacol \* Guaicol \* Guajakol (Czech)  
\* o-Hydroxyanisole \* 2-Hydroxyanisole \*  
1-Hydroxy-2-methoxybenzene \* o-Methoxyphenol \*  
2-Methoxyphenol \* Methylcatechol \* Pyroguaiac acid

RTECS Number: SL7525000

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Harmful.

Harmful if swallowed. Irritating to eyes and skin.

Readily absorbed through skin. Combustible.

## HMIS RATING

HEALTH: 2

FLAMMABILITY: 2

REACTIVITY: 1

## NFPA RATING

HEALTH: 2

FLAMMABILITY: 2

REACTIVITY: 1

For additional information on toxicity, please refer to Section 11.

## Section 4 - First Aid Measures

## ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

## INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

#### DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

#### EYE EXPOSURE

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

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### Section 5 - Fire Fighting Measures

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#### FLASH POINT

179.6 °F    82 °C    Method: closed cup

#### AUTOIGNITION TEMP

N/A

#### FLAMMABILITY

N/A

#### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

#### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
Specific Hazard(s): Emits toxic fumes under fire conditions.  
Combustible.

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### Section 6 - Accidental Release Measures

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#### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

#### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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### Section 7 - Handling and Storage

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#### HANDLING

User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

#### STORAGE

Suitable: Keep tightly closed. Keep away from heat and open flame. Store in a cool dry place.

#### SPECIAL REQUIREMENTS

Store under inert gas. Air and light sensitive.

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### Section 8 - Exposure Controls / PPE

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#### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN

(EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

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#### Section 9 - Physical/Chemical Properties

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Appearance	Physical State: Solid Color: Colorless Form: Crystals	
Property	Value	At Temperature or Pressure
Molecular Weight	124.14 AMU	
pH	N/A	
BP/BP Range	205 °C	760 mmHg
MP/MP Range	26 °C	
Freezing Point	N/A	
Vapor Pressure	0.11 mmHg	25 °C
Vapor Density	4.27 g/l	
Saturated Vapor Conc.	N/A	
SG/Density	1.129 g/cm <sup>3</sup>	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	Log Kow: 1.32	
Decomposition Temp.	N/A	
Flash Point	179.6 °F 82 °C	Method: closed cup
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	1.543	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	Other Solvents: MISCIBLE WITH ALCOHOL CHLOROFORM, ETHER OILS, GLACIAL ACETIC ACID BENZENE, TOLUENE	

N/A = not available

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#### Section 10 - Stability and Reactivity

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##### STABILITY

Stable: Stable.

Conditions of Instability: May discolor on exposure to light. May discolor on exposure to air.

Materials to Avoid: Strong oxidizing agents, Strong bases.

##### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

##### HAZARDOUS POLYMERIZATION

Section 11 - Toxicological Information

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ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.  
Skin Absorption: May be harmful if absorbed through the skin.  
Readily absorbed through skin.  
Eye Contact: Causes eye irritation.  
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.  
Ingestion: Harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral  
Human  
43 mg/kg  
LDLO  
Remarks: Behavioral:Tremor. Gastrointestinal:Other changes.

Oral  
Rat  
520 mg/kg  
LD50  
Remarks: Behavioral:General anesthetic.

Oral  
Mouse  
621 mg/kg  
LD50

Inhalation  
Mouse  
7,570 mg/m3  
LC50

Intravenous  
Mouse  
170 MG/KG  
LD50

Skin  
Rabbit  
4600 mg/kg  
LD50

IRRITATION DATA

Skin  
Rabbit  
500 mg  
24H  
Remarks: Severe irritation effect

Eyes  
Rabbit  
5 mg

Remarks: Mild irritation effect

CHRONIC EXPOSURE - MUTAGEN

Species: Human  
Dose: 500 UMOL/L  
Cell Type: lymphocyte  
Mutation test: Sister chromatid exchange

Mutation test: Histidine reversion (Ames)

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Section 12 - Ecological Information

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ACUTE ECOTOXICITY TESTS

Test Type: EC50 Daphnia  
Species: Daphnia magna  
Time: 48 h  
Value: 25.9 mg/l

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Section 13 - Disposal Considerations

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APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Observe all federal, state, and local environmental regulations.  
Contact a licensed professional waste disposal service to dispose  
of this material.

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Section 14 - Transport Information

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DOT

Proper Shipping Name: None  
Non-Hazardous for Transport: This substance is  
considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air  
transport.

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Section 15 - Regulatory Information

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EU DIRECTIVES CLASSIFICATION

Symbol of Danger: Xn  
Indication of Danger: Harmful.  
R: 22-36/38  
Risk Statements: Harmful if swallowed. Irritating to eyes and  
skin.  
S: 26  
Safety Statements: In case of contact with eyes, rinse  
immediately with plenty of water and seek medical advice.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Harmful.  
Risk Statements: Harmful if swallowed. Irritating to eyes and  
skin.  
Safety Statements: In case of contact with eyes, rinse  
immediately with plenty of water and seek medical advice.  
US Statements: Readily absorbed through skin. Combustible.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No  
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

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Section 16 - Other Information

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DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.