SAFETY DATA SHEET

507731 GUAIACOL NATURAL

1. IDENTIFICATION

Product Description: GUAIACOL NATURAL

CAS # 90-05-1

FEMA Number 2532

Other means of identification
Vigon Item # 507731

Recommended use Concentrated aromatic and flavor ingredient which may be used in flavor and fragrance compounds according to legal and IFRA or FEMA GRAS/FDA guidelines.

Recommended restrictions For Manufacturing Use Only

Company Vigon International, Inc.

24 Hour Emergency Response Information
INFOTRAC (ACCT# 78928); 1-800-535-5053 WITHIN THE U.S.A.
1-352-323-3500 OUTSIDE THE U.S.A.

For information call: 570-476-6300
Web Site: www.vigon.com

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Vigon International, Inc.

Address 127 Airport Road
E. Stroudsburg, PA 18301
United States

Telephone For information call: 570-476-6300
Website www.vigon.com
E-mail regulatory@vigon.com

Emergency phone number INFOTRAC (ACCT# 78928);
1-800-535-5053 WITHIN THE U.S.A.
1-352-323-3500 OUTSIDE THE U.S.A.

2. HAZARD(S) IDENTIFICATION

Physical hazards Flammable liquids Category 4

Health hazards Acute toxicity, oral Category 4
Acute toxicity, dermal Category 5
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 3

Label elements

![Warning Symbol]
SAFETY DATA SHEET

507731 GUAIACOL NATURAL

Signal word Warning
Hazard statement Combustible liquid. Harmful if swallowed. May be harmful in contact with skin. Causes skin irritation. Causes skin and eye irritation. Causes serious eye irritation. Harmful to aquatic life.
Precautionary statement
Prevention Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Response IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
Storage Store in a well-ventilated place.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOCl) None known.
Supplemental information 100% of the substance consists of component(s) of unknown acute inhalation toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUAIACOL</td>
<td>2-methoxyphenol</td>
<td>90-05-1</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>1- hydroxy-2-methoxybenzene</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ortho- methoxyphenol</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>pyrocatechol methyl ester</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ortho- hydroxyanisole</td>
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<td></td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.
Skin contact Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.
Eye contact Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids.
Ingestion Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.
Most important symptoms/effects, acute and delayed Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
SAFETY DATA SHEET

507731 GUAIACOL NATURAL

Indication of immediate medical attention and special treatment needed

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Water spray, fog, CO2, dry chemical, or alcohol resistant foam.

Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
Fire may produce irritating, corrosive and/or toxic gases.

Special protective equipment and precautions for firefighters
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.

Fire fighting equipment/instructions
In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.

Specific methods
Use water spray to cool unopened containers.

General fire hazards
Static charges generated by emptying package in or near flammable vapor may cause flash fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

Methods and materials for containment and cleaning up
Collect and dispose of spillage as indicated in section 13 of the SDS.

Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions
Retain and dispose of contaminated wash water. Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.
7. HANDLING AND STORAGE
Precautions for safe handling Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Occupational exposure limits This substance has no PEL, TLV, or other recommended exposure limit.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Use explosion-proof ventilation equipment to stay below exposure limits.

Individual protection measures, such as personal protective equipment

   Eye/face protection Wear safety glasses with side shields (or goggles).

   Skin protection Chemical resistant gloves.

   Hand protection

   Other Not available.

   Respiratory protection Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided.

   Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Refer to Spec Sheet

   Physical state Liquid.

   Form Liquid.

   Color Refer to Spec Sheet

Odor Characteristic.

Odor threshold Not available.

pH Not available.

Melting point/freezing point 89.6 °F (32 °C)

Initial boiling point and boiling range

   399.2 - 402.8 °F (204 - 206 °C)

Flash point 179.0 °F (81.7 °C) Closed Cup

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

   Flammability limit - lower (%) Not available.
SAFETY DATA SHEET

507731 GUAIACOL NATURAL

Flammability limit - upper (%) Not available.
Explosive limit - lower (%) Not available.
Explosive limit - upper (%) Not available.
Vapor pressure 100 mm Hg at 144°C
Vapor density 4.3
Relative density Not available.
Solubility(ies) Solubility (water) Insoluble
Partition coefficient (n-octanol/water) 1.32
Auto-ignition temperature Not available.
Decomposition temperature Not available.
Viscosity Not available.
Other information Density 1.13 g/cm3 estimated at 21 °C
Explosive properties Not explosive.
Flammability class Combustible IIIA estimated
Molecular formula C7-H8-O2
Molecular weight 124.13 g/mol
Oxidizing properties Not oxidizing.
Specific gravity 1.13 at 25 °C

10. STABILITY AND REACTIVITY

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.
Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials Strong oxidizing agents. Alkaline metals.
Hazardous decomposition products No hazardous decomposition products if stored and handled as indicated.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation Knowledge about health hazard is incomplete.
Skin contact May be harmful in contact with skin. Causes skin irritation.
Eye contact Causes serious eye irritation.
Ingestion Harmful if swallowed.
**SAFETY DATA SHEET**

**507731 GUAIACOL NATURAL**

**Revision Date: 05-29-2020**

**Version # 04**

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**Symptoms related to the physical, chemical and toxicological characteristics**

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

**Information on toxicological effects**

**Acute toxicity**

Harmful if swallowed. May be harmful in contact with skin.

**Product**

**Species**

**Test Results**

**GUAIACOL (CAS 90-05-1)**

<table>
<thead>
<tr>
<th>Acute</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal LD50</td>
<td>Rabbit</td>
<td>4600 mg/kg</td>
</tr>
<tr>
<td>Inhalation LD50</td>
<td>Mouse</td>
<td>7570 mg/m3</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>Rat</td>
<td>520 mg/kg Remarks: Behavioral: General anesthetic.</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**

Causes skin irritation.

Skin - rabbit

Result: Severe skin irritation - 24 h (Draize Test)

**Serious eye damage/eye irritation**

Direct contact with eyes may cause temporary irritation.

Eyes - rabbit

Result: Mild eye irritation - 24 h (Draize Test)

**Respiratory or skin sensitization**

**Respiratory sensitization**

Due to partial or complete lack of data the classification is not possible.

**Skin sensitization**

Due to partial or complete lack of data the classification is not possible.

**Germ cell mutagenicity**

Result: Equivocal evidence.

Histidine reversion (Ames)

Human lymphocyte

Sister chromatid exchange Due to partial or complete lack of data the classification is not possible.

**Carcinogenicity**

Due to partial or complete lack of data the classification is not possible.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

**Reproductive toxicity**

Due to partial or complete lack of data the classification is not possible.

**Specific target organ toxicity - single exposure**

Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure: Due to partial or complete lack of data the classification is not possible.
Aspiration hazard: Due to partial or complete lack of data the classification is not possible.

### 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Harmful to aquatic life.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUAIACOL (CAS 90-05-1)</td>
<td>Aquatic Crustacea</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
</tbody>
</table>

#### Persistence and degradability

No data is available on the degradability of this substance.

#### Bioaccumulative potential

- **Partition coefficient n-octanol / water (log Kow)**: 1.32
- **Mobility in soil**: No data available.
- **Other adverse effects**: No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal instructions

Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Local disposal regulations

Dispose in accordance with all applicable regulations.

#### Hazardous waste code

Not established.

#### Waste from residues / unused products

Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

#### Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. TRANSPORT INFORMATION

#### ADN

Not regulated as dangerous goods.

#### ADR

Not regulated as dangerous goods.

#### RID

Not regulated as dangerous goods.

#### DOT

<table>
<thead>
<tr>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Hazard class</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA1993</td>
<td>COMBUSTIBLE LIQUID, N.O.S. (GUAIACOL)</td>
<td>Combustible liq</td>
</tr>
</tbody>
</table>
Packing group
   III

Environmental hazards
   Marine pollutant
      No

Packaging exceptions
   150

Packaging bulk
   242

Labels required
   3

DOT

NON-BULK
   Not regulated as dangerous goods.

IATA
   Not regulated as dangerous goods.

IMDG
   Not regulated as dangerous goods.

15. REGULATORY INFORMATION

US federal regulations
   This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

   Toxic Substances Control Act (TSCA)
      TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
         Not regulated.

      CERCLA Hazardous Substance List (40 CFR 302.4)
         Not listed.

      SARA 304 Emergency release notification
         Not regulated.

      OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
         Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
   SARA 302 Extremely hazardous substance
      Not listed.

   SARA 311/312 Hazardous chemical
      Yes

      Classified hazard categories
         Flammable (gases, aerosols, liquids, or solids)
         Acute toxicity (any route of exposure)
         Skin corrosion or irritation
         Serious eye damage or eye irritation

   SARA 313 (TRI reporting)
      Not regulated.

Other federal regulations
   Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
      Not regulated.
16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Issue date: 09-20-2017
Revision date: 05-29-2020
Version #: 04
HMIS® ratings:
  - Health: 2
  - Flammability: 2
  - Physical hazard: 0

Disclaimer:
Vigon International, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, and disposal and should not be considered as a guarantee or quality specification. This product has not been evaluated for safe use in e-cigarettes or any vaping application where the product(s) is/are intentionally vaporized and inhaled. Vigon International, Inc. has performed no testing on these products in e-cig/vaping applications. It is the sole responsibility of the individual(s) purchasing this product to assess its' safety in the final application. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, disposal, and should not be considered as a guarantee or quality specification. The above information is based on data provided by and collected from recognized sources such as distributors, manufacturers, and technical groups and is considered to be accurate to the best of Vigon's knowledge as of the date of this document. It is the responsibility of the user to review all safety information about this product and determine its safety and suitability in their own processes and operations. Appropriate warnings and safe handling procedures should be provided to all handlers and users, taking into account the intended use and the specific conditions and factors relating to such use in accordance with all applicable laws and regulations.

Revision information:
- EXPOSURE CONTROLS/PERSONAL PROTECTION: Eye/face protection
- Physical & Chemical Properties: Multiple Properties
- Toxicological Information: Toxicological Data
- ECOLOGICAL INFORMATION: Ecotoxicity
- GHS: Classification