Benzene,1-methoxy-4-(2-propen-1-yl)- (cas 140-67-0) MSDS

Section 1 - Chemical Product and Company Identification

MSDS Name: 4-allylanisole, 98%
Catalog Numbers: AC102880000, AC102880250, AC102881000, 10288-0050
Synonyms: 4-allyl-1-methoxybenzene; Chavicol Methyl Ether; Esdragol; Isoanethole; p-methoxyallylbenzene; Methoxyallylbenzene; 1-methoxy-4-(2-propenyl)benzene; Chavicol; Methyl Chavicol.

Company Identification:
Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410
For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>140-67-0</td>
<td>4-Allylanisole</td>
<td>98.0</td>
<td>205-427-8</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 81 deg C.
Caution! Causes respiratory tract irritation. Causes eye and skin irritation. Combustible liquid and vapor. May be harmful if swallowed. May cause central nervous system depression.
Target Organs: Central nervous system.

Potential Health Effects

Eye: Causes eye irritation. May cause chemical conjunctivitis and corneal damage.
Skin: Causes skin irritation. May cause dermatitis. May cause cyanosis of the extremities.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.
Inhalation: Causes respiratory tract irritation. Aspiration may lead to pulmonary edema. Can produce delayed pulmonary edema. Inhalation at high concentrations may cause CNS depression and asphyxiation.
Chronic: Effects may be delayed.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Combustible liquid. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.
Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
Flash Point: 81 deg C (177.80 deg F)
Autoignition Temperature: Not available.
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: ; Flammability: ; Instability:

Section 6 - Accidental Release Measures
General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Wash clothing before reuse. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Allylanisole</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: 4-Allylanisole: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear safety glasses and chemical goggles if splashing is possible.

Skin: Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: clear, colorless

Odor: anise odor

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: 5.11

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 215.0 - 216.0 deg C @ 760.00m

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: 0.9650 g/cm3

Molecular Formula: H2C=CHCH2C6H4OCH3

Molecular Weight: 148.20

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, strong oxidants.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, acid smoke and fumes.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 140-67-0: B29225000

LD50/LC50:

CAS# 140-67-0:

Draize test, rabbit, skin: 500 mg/24H Moderate;

Oral, mouse: LD50 = 1250 mg/kg;

Oral, rat: LD50 = 1230 mg/kg;

Skin, rabbit: LD50 = >5 g/kg;

Carcinogenicity:

CAS# 140-67-0:

ACGIH: Not listed.

California: carcinogen, initial date 10/29/99

NTP: Not listed.

IARC: Not listed.

Epidemiology: No information found

Teratogenicity: TDLo (Oral, mouse) = 97 gm/kg/1Y-C; Liver - tumors

Reproductive Effects: No information found

Mutagenicity: Mutation in microorganisms (Salmonella typhimurium) = 20 umol/plate Unscheduled DNA synthesis (rat Liver) = 1 mmol/L Unscheduled DNA
Section 12 - Ecological Information

Ecotoxicity: Bacteria: Phytobacterium phosphoreum: EC50 = 0.36-0.46 mg/L; 5,15,30 minutes; Microtox test, 15 degrees C

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>US DOT</th>
<th>Canada TDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Name:</td>
<td>Not regulated as a hazardous material</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>No information available.</td>
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<tr>
<td>UN Number:</td>
<td></td>
</tr>
<tr>
<td>Packing Group:</td>
<td></td>
</tr>
</tbody>
</table>

Section 15 - Regulatory Information

US FEDERAL

TSCA
- CAS# 140-67-0 is listed on the TSCA inventory.
- Health & Safety Reporting List
  - None of the chemicals are on the Health & Safety Reporting List.
- Chemical Test Rules
  - None of the chemicals in this product are under a Chemical Test Rule.
- Section 12b
  - None of the chemicals are listed under TSCA Section 12b.
- TSCA Significant New Use Rule
  - None of the chemicals in this material have a SNUR under TSCA.
- CERCLA Hazardous Substances and corresponding RQs
  - None of the chemicals in this material have an RQ.
- SARA Section 302 Extremely Hazardous Substances
  - None of the chemicals in this product have a TPQ.
- Section 313
  - No chemicals are reportable under Section 313.
- Clean Air Act:
  - This material does not contain any hazardous air pollutants.
  - This material does not contain any Class 1 Ozone depletors.
  - This material does not contain any Class 2 Ozone depletors.
- Clean Water Act:
  - None of the chemicals in this product are listed as Hazardous Substances under the CWA.
  - None of the chemicals in this product are listed as Priority Pollutants under the CWA.
  - None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
- OSHA:
  - None of the chemicals in this product are considered highly hazardous by OSHA.
- STATE
  - CAS# 140-67-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
- California Prop 65
  - The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:
    - WARNING: This product contains 4-Allylanisole, a chemical known to the state of California to cause cancer.
    - California No Significant Risk Level: None of the chemicals in this product are listed.
- European/International Regulations
  - European Labeling in Accordance with EC Directives
  - Hazard Symbols:
    - XN
  - Risk Phrases:
    - R 22 Harmful if swallowed.
  - Safety Phrases:
    - WGK (Water Danger/Protection)
      - CAS# 140-67-0: No information available.
      - Canada - DSL/NDSL
        - CAS# 140-67-0 is listed on Canada's DSL List.
      - Canada - WHMIS
        - This product has a WHMIS classification of D2B.
        - This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
  - Canadian Ingredient Disclosure List

Section 16 - Additional Information
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 Fisher 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 Fisher has been advised of the possibility of such damages.