



SIGMA-ALDRICH

## Material Safety Data Sheet

Date Printed: 08/06/2004  
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Version 1.20

### Section 1 - Product and Company Information

**Product Name** 3,4-Dimethylphenol, 99%  
**Product Number** D175404  
**Brand** Aldrich Chemical

**Company** Sigma-Aldrich  
**Street Address** 3050 Spruce Street  
**City, State, Zip, Country** SAINT LOUIS, MO 63103 US  
**Technical Phone:** 314 771 5765  
**Fax:** 800 325 5052

**Emergency Phone:** 414 273 3850 Ext. 5996

### Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
3,4-DIMETHYLPHENOL	95-65-8	No	202-439-5	604-006-00-X

**Formula** C<sub>8</sub>H<sub>10</sub>O  
**Synonyms** 3,4-Dimethylphenol, 4,5-Dimethylphenol, Phenol, 3,4-dimethyl-, (9CI), 1,3,4-Xylenol

### Section 3 - Hazards Identification

#### Emergency Overview

Corrosive.  
Causes burns. Harmful by inhalation, in contact with skin and if swallowed.  
Readily absorbed through skin.

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

### Section 4 - First Aid Measures

#### Immediate Treatment - Work Site

In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.

#### 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.

#### Eye Exposure

Assure adequate flushing of the eyes by separating the eyelids with fingers.

### Section 5 - Fire Fighting Measures

#### Conditions of Flammability

Under fire conditions, material may decompose to form flammable and/or explosive mixtures in air.

**Flash Point:** 230 °F 110 °C

**Autoignition Temp:** 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.

#### Exposure Hazard(s)

##### Material

Toxic, Corrosive.

### Section 6 - Accidental Release Measures

#### Procedure to be Followed in Case of Leak or Spill

Evacuate area.

#### Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

#### Methods for Cleaning Up

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

### Section 7 - Handling and Storage

#### Handling

##### User Exposure

Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

#### Storage

##### Suitable

Keep tightly closed. Store in a cool dry place.

### Section 8 - Exposure Controls / PPE

#### Engineering Controls

Use only in a chemical fume hood. Safety shower and eye bath.

#### Personal Protective Equipment

##### Other

Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing. Faceshield (8-inch minimum).

**General Hygiene Measures**

Wash thoroughly after handling. Discard contaminated clothing and shoes.

**Section 9 - Physical/Chemical Properties****Appearance****Color**

Faintly brown

**Form**

Crystals

Molecular Weight: 122.17 AMU

Property	Value	At Temperature or Pressure
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pH	N/A	
BP/BP Range	227 °C	760 mmHg
MP/MP Range	63 °C	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	N/A	
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	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point °F	230 °F	
Flash Point °C	110 °C	
Explosion Limits	N/A	

Method: closed cup  
Method: closed cup

Flammability	N/A
Autoignition Temp	N/A
Solubility	N/A

N/A = not available

**Section 10 - Stability and Reactivity****Stability****Materials to Avoid**

Bases, Acid chlorides, Acid anhydrides, Oxidizing agents, Brass, Copper, Copper alloys.

**Hazardous Decomposition Products****Hazardous Decomposition Products**

Carbon monoxide, Carbon dioxide.

**Section 11 - Toxicological Information****Route of Exposure****Multiple Routes**

Harmful if swallowed, inhaled, or absorbed through skin. Causes burns.

**Signs and Symptoms of Exposure**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

RTECS Number: ZE6300000

**Toxicity Data**

Oral - Rat: 727 mg/kg (LD50)

Intraperitoneal - Rat: 200 MG/KG (LD50)

Remarks: Behavioral: Somnolence (general depressed activity).  
Kidney, Ureter, Bladder: Other changes in urine composition.  
Skin and Appendages: Other: Hair.

Oral - Mouse: 400 mg/kg (LD50)

Remarks: Behavioral: Ataxia.  
Behavioral: Muscle contraction or spasticity.  
Lungs, Thorax, or Respiration: Dyspnea.

Intraperitoneal - Mouse: 50 MG/KG (LD50)

Remarks: Behavioral: Somnolence (general depressed activity).  
Behavioral: Ataxia.  
Skin and Appendages: Other: Hair.

Oral - Rabbit: 800 mg/kg (LD50)

Remarks: Behavioral: Ataxia.  
Behavioral: Muscle contraction or spasticity.  
Lungs, Thorax, or Respiration: Dyspnea.

**Chronic Exposure - Carcinogen**

Mouse - Skin: 4000 MG/KG 20W I

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.

**Section 12 - Ecological Information**

No data available.

**Section 13 - Disposal Considerations****Appropriate Method of Disposal of Substance or Preparation**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

**Section 14 - Transport Information****DOT**

Proper Shipping Name: Xylenols

UN#: 2261

Class: 6.1

Packing Group: Packing Group II

Hazard Label: Toxic substances.

PIH: Not PIH

**IATA**

Proper Shipping Name: Xylenols

IATA UN Number: 2261

Hazard Class: 6.1

Packing Group: II

## Section 15 - Regulatory Information

### EU Directives Classification

Symbol of Danger: T N

Indication of Danger

Toxic, Dangerous for the environment.

**Risk Statements** R: 24/25 34 51/53

Toxic in contact with skin and if swallowed. Causes burns. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Statements** S: 26 36/37/39 45 61

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/safety data sheets.

### US Classification and Label Text

Indication of Danger

Corrosive.

**Risk Statements**

Causes burns. Harmful by inhalation, in contact with skin and if swallowed.

**Safety Statements**

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Take off immediately all contaminated clothing. Wear suitable protective clothing, gloves, and eye/face protection.

**US Statements**

Readily absorbed through skin.

### 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

## Section 16 - Other Information

### 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 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

