

# SAFETY DATA SHEET

Creation Date 25-Oct-2010

Revision Date 19-Dec-2025

Revision Number 5

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

<b>Product Name</b>	2,4-Dimethylphenol
<b>Cat No. :</b>	<b>AC408450000; AC408450050; AC408450250; AC408451000; AC408455000</b>
<b>CAS No</b>	105-67-9
<b>Synonyms</b>	2,4-Xylenol
<b>Recommended Use</b>	Laboratory chemicals.
<b>Uses advised against</b>	Food, drug, pesticide or biocidal product use.

## Details of the supplier of the safety data sheet

<b>Company</b>	
Fisher Scientific Company	Acros Organics
One Reagent Lane	One Reagent Lane
Fair Lawn, NJ 07410	Fair Lawn, NJ 07410
Tel: (201) 796-7100	

## **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99

CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

## 2. Hazard(s) identification

### Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
Skin Corrosion/Irritation	Category 1 B
Serious Eye Damage/Eye Irritation	Category 1

## Label Elements

### **Signal Word**

Danger

### **Hazard Statements**

Causes severe skin burns and eye damage  
Toxic if swallowed or in contact with skin



### Precautionary Statements

#### Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapors/spray

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

#### Skin

Take off contaminated clothing and wash before reuse  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
Immediately call a POISON CENTER or doctor

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER or doctor/physician

#### Ingestion

Rinse mouth  
Do NOT induce vomiting  
IF SWALLOWED: Immediately call a POISON CENTER or doctor

#### Storage

Store locked up

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

Toxic to aquatic life with long lasting effects

#### **Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available

### 3. Composition/information on Ingredients

Component	CAS No	Weight %
2,4-Dimethylphenol	105-67-9	99

### 4. First-aid measures

#### Eye Contact

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

#### Inhalation

Remove from exposure, lie down. Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration.

<b>Ingestion</b>	Do NOT induce vomiting. Get medical attention.
<b>Most important symptoms and effects</b>	Causes burns by all exposure routes. Difficulty in breathing. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
<b>Notes to Physician</b>	Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

**Unsuitable Extinguishing Media** No information available

**Flash Point** 96 °C / 204.8 °F

**Method -** No information available

**Autoignition Temperature** No information available

**Explosion Limits**

**Upper** No data available

**Lower** 1.40%

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

### Specific Hazards Arising from the Chemical

Flammable. Vapors may form explosive mixtures with air.

### Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### NFPA

**Health**  
3

**Flammability**  
1

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

**Personal Precautions** Remove all sources of ignition. Take precautionary measures against static discharges.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Wear self-contained breathing apparatus and protective suit. Do not let this chemical enter the environment. Use spark-proof tools and explosion-proof equipment. Remove all sources of ignition. Take precautionary measures against static discharges.

## 7. Handling and Storage

### Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Handle product only in closed system or provide appropriate exhaust ventilation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges.

**Storage.** Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Corrosives area. Incompatible Materials. Bases. Strong oxidizing agents. Acid anhydrides. Acid chlorides. Metals. copper.

## 8. Exposure controls / personal protection

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
2,4-Dimethylphenol	TWA: 1 ppm			

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protective Equipment

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** 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.

**Recommended Filter type:** Organic gases and vapours filter. Type A. Brown. conforming to EN14387.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Appearance

**Physical State** Liquid

**Color** Light yellow

**Odor** aromatic

**Odor Threshold** No information available

### Property

**Melting Point/Range** 21 - 23 °C / 69.8 - 73.4 °F

**Softening Point** No data available

**Boiling Point/Range** 211 °C / 411.8 °F

**Flash Point** 96 °C / 204.8 °F

**Flammability (liquid)** No data available

**Flammability (solid,gas)** Not applicable

**Explosion Limits** Lower 1.4

### Remarks

### • Method

**Autoignition Temperature** No data available

**Decomposition Temperature** No data available

**pH** No information available

**Viscosity** No data available

**Water Solubility** 0.5% (25°C)

**Solubility in other solvents** No information available

**Partition Coefficient (n-octanol/water)**

**Component** log Pow

2,4-Dimethylphenol 2.42

**Vapor Pressure** 0.14 mbar @ 25 °C

**Density / Specific Gravity** 1.027

<b>Bulk Density</b>	Not applicable	Liquid (Air = 1.0)
<b>Vapor Density</b>	No data available	
<b>Particle characteristics</b>	Not applicable (liquid)	

**Other Information**

<b>Molecular Formula</b>	C8 H10 O
<b>Molecular Weight</b>	122.17

**10. Stability and reactivity**

<b>Reactive Hazard</b>	None known, based on information available
<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.
<b>Incompatible Materials</b>	Bases, Strong oxidizing agents, Acid anhydrides, Acid chlorides, Metals, copper
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

**11. Toxicological information****Information on expected route of exposure**

<b>Inhalation</b>	Avoid breathing vapors or mists.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Eyes</b>	Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness.
<b>Skin</b>	Avoid contact with skin. Causes burns. Prolonged skin contact may defat the skin and produce dermatitis. Harmful in contact with skin.

**Toxicology data for the components**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
2,4-Dimethylphenol	LD50 = 2300 mg/kg ( Rat )	LD50 = 1040 mg/kg ( Rat )	-

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** Category 1 B

**(c) serious eye damage/irritation;** Category 1

**(d) respiratory or skin sensitization;**  
 Respiratory No data available  
 Skin No data available

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;**

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
2,4-Dimethylphenol	105-67-9	Not listed	Not listed	A3	Not listed	Not listed

**(g) reproductive toxicity;** No data available

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** No data available

**Target Organs** No information available.

**(j) aspiration hazard;** No data available

**Symptoms / effects, both acute and delayed** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

### Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
2,4-Dimethylphenol	Not listed	LC50: 7.8 - 11 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: 11.3 - 13.9 mg/L, 96h flow-through (Oryzias latipes) LC50: 4.1 - 9.6 mg/L, 96h flow-through (Lepomis macrochirus) LC50: 15.4 mg/L, 96h flow-through (Pimephales promelas) LC50: 6.3 - 9.6 mg/L, 96h static (Lepomis macrochirus)	EC50 = 2.49 mg/L 5 min EC50 = 2.61 mg/L 15 min EC50 = 2.67 mg/L 30 min	EC50: 1.77 - 3.17 mg/L, 48h (Daphnia magna)

**Persistence and Degradability** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

Component	log Pow
2,4-Dimethylphenol	2.42

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and

national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
2,4-Dimethylphenol - 105-67-9	U101	-

## 14. Transport information

### DOT

UN-No	UN2928
Proper Shipping Name	TOXIC SOLIDS, CORROSIVE, ORGANIC, N.O.S.
Technical Shipping Name	(2,4-DIMETHYLPHENOL)
Hazard Class	6.1
Subsidiary Hazard Class	8
Packing Group	II

### TDG

UN-No	UN2928
Proper Shipping Name	TOXIC SOLIDS, CORROSIVE, ORGANIC, N.O.S.
Technical Shipping Name	(2,4-DIMETHYLPHENOL)
Hazard Class	6.1
Subsidiary Hazard Class	8
Packing Group	II

### IATA

UN-No	UN2928
Proper Shipping Name	TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S.
Technical Shipping Name	(2,4-DIMETHYLPHENOL)
Hazard Class	6.1
Subsidiary Hazard Class	8
Packing Group	II

### IMDG/IMO

UN-No	UN2928
Proper Shipping Name	Toxic solid, corrosive, organic, n.o.s.
Technical Shipping Name	(2,4-DIMETHYLPHENOL)
Hazard Class	6.1
Subsidiary Hazard Class	8
Packing Group	II

## 15. Regulatory Information

### United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
2,4-Dimethylphenol	105-67-9	X	ACTIVE	-

#### Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

U - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b) - Notices of Export** Not applicable

### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
2,4-Dimethylphenol	105-67-9	-	X	203-321-6	X	X	X	X	X	KE-11763

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### U.S. Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting thresholds
2,4-Dimethylphenol	105-67-9	99	1.0 %	-

#### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### **CWA (Clean Water Act)**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
2,4-Dimethylphenol	-	-	X	X

**Clean Air Act** Not applicable

**OSHA - Occupational Safety and Health Administration** Not applicable

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

Component	Hazardous Substances RQs	CERCLA Extremely Hazardous Substances RQs	SARA Reportable Quantity (RQ)
2,4-Dimethylphenol	100 lb	-	100 lb 45.4 kg

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

#### **U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
2,4-Dimethylphenol	X	X	X	-	-

#### **U.S. Department of Transportation**

Reportable Quantity (RQ): Y

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

#### Other International Regulations

**Mexico - Grade** No information available

#### **Authorisation/Restrictions according to EU REACH**

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
2,4-Dimethylphenol	105-67-9	-	Use restricted. See entry 75. (see link for restriction details)	-

**REACH links**

<https://echa.europa.eu/substances-restricted-under-reach>

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
2,4-Dimethylphenol	105-67-9	Listed	Not applicable	Not applicable	Not applicable

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

**Other International Regulations**

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
2,4-Dimethylphenol	105-67-9	Not applicable	Not applicable	Not applicable	Not applicable

**16. Other Information****Prepared By**

Product stewardship (Regulatory Affairs)  
Thermo Fisher Scientific  
email - begel.sdsdesk@thermofisher.com

**Creation Date**

25-Oct-2010

**Revision Date**

19-Dec-2025

**Print Date**

19-Dec-2025

**Revision Summary**

Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**