

MATERIAL SAFETY DATA SHEET

EASTMAN KODAK COMPANY
343 State Street
Rochester, New York 14650

MSDS # 03841

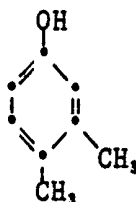
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Date of Preparation: 2/12/83

Approved by U.S. Department of Labor

SECTION I. IDENTIFICATION

- Product Name: 3,4-Dimethylphenol
- Size(s): 100 g
- Synonym(s): 3,4-Xylenol; 4-Hydroxy-1,2-dimethylbenzene
- Formula: $(\text{CH}_3)_2\text{C}_6\text{H}_3\text{OH}$



- Kodak Laboratory Chemicals Catalog Number(s): 1155
- Kodak Accession Number: 901155

SECTION II. PRODUCT AND COMPONENT HAZARD DATA

A. COMPONENT(S):	Percent	TLV*	Kodak Accession No.	CAS Reg. No.
3,4-Dimethylphenol	~ 100	---	901155	95-65-8

B. PRECAUTIONARY LABEL STATEMENT(S):

DANGER!**CAUSES BURNS**

Avoid contact with eyes, skin, and clothing.

Avoid breathing dust.

Use with adequate ventilation.

Wash thoroughly after handling.

First Aid: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms persist. Wash contaminated clothing before reuse. Destroy contaminated shoes.

SECTION III. PHYSICAL DATA

- Appearance and Odor: White crystalline solid
- Melting Point: 65 °C (149 °F)
- Boiling Point: 225 °C (437 °F) @ 760 mmHg
- Vapor Pressure: Not Available
- Evaporation Rate (n-butyl acetate = 1): Not Applicable
- Vapor Density (Air = 1): 4.23
- Volatile Fraction by Weight: Not Available
- Specific Gravity (H₂O = 1): 1.02
- Solubility in Water (by Weight): Negligible
- Heat of Decomposition: -0.46 kcal/g*

* Calculated by ASTM Program CHETAH.

SECTION IV. FIRE AND EXPLOSION HAZARD DATA

- Extinguishing Media: Water spray; Dry chemical; CO₂; Foam
- Special Fire Fighting Procedures:
 - Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- Unusual Fire and Explosion Hazards:
 - Fire or excessive heat may cause production of hazardous decomposition products.

SECTION V. REACTIVITY DATA

- Stability: Stable
- Incompatibility: Strong oxidizers
- Hazardous Decomposition Products:
 - As with any other organic material, combustion will produce carbon dioxide and probably carbon monoxide.
- Hazardous Polymerization: Will not occur.

SECTION VI. TOXICITY AND HEALTH HAZARD DATA

A. THRESHOLD LIMIT VALUE: Not established

B. EXPOSURE EFFECTS:

Eyes: May cause eye burns.

Skin: May cause burns.

C. FIRST AID:

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.

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Skin: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash contaminated clothing before reuse.

D. ANIMAL TOXICITY DATA:

<u>Test</u>	<u>Species</u>	<u>Result</u>	<u>Classification</u> ⁽²⁾
Oral LD ₅₀	Rat	~ 1600 mg/kg (1)	Slightly toxic
Oral LD ₅₀	Mouse	~ 400 mg/kg (1)	
Oral LD ₅₀	Rabbit	~ 800 mg/kg (3)	
Skin Irritation	Guinea Pig	Strong (1)	
Skin Absorption	Guinea Pig	No evidence at 1.0 g/kg	
Eye Irritation	Rabbit	Permanent damage although washing within a reasonable length of time minimized the irritation and avoided the permanent affects.	

SECTION VII. PERSONAL PROTECTION AND CONTROLS

A. RESPIRATORY PROTECTION:

An appropriate NIOSH-approved respirator for dusts should be worn if needed.

B. VENTILATION:

Local Exhaust: Recommended

Mechanical (General): Recommended

C. SKIN AND EYE PROTECTION:

Protective gloves should be worn.
Safety glasses with side shields or goggles or face shield are recommended.

SECTION VIII. SPECIAL STORAGE AND HANDLING PRECAUTIONS

Keep from contact with oxidizing materials.

SECTION IX. SPILL, LEAK, AND DISPOSAL PROCEDURES

Avoid skin contact.
Sweep material onto paper and place in fiber carton.
Dispose in an approved incinerator.
Contract with licensed chemical waste disposal service.
Federal, state, and local regulations take precedence.

SECTION X. ENVIRONMENTAL EFFECTS DATA

A. SUMMARY:

This chemical has been tested for environmental effects. Some published data are available for this chemical, and these data have been used to provide the following estimate of environmental impact:⁴

This chemical has a high biological oxygen demand, and it is expected to cause significant oxygen depletion in aquatic systems. It is not likely to bioconcentrate. If diluted with a large amount of water, a small quantity of this chemical released directly or indirectly into the environment is not expected to have a significant impact.

B. OXYGEN DEMAND DATA:

Using a fully acclimated activated sludge and the subject compound as the sole carbon source, Pitter⁽⁴⁾ showed that 3,4-dimethylphenol was 97.5 percent degraded, as judged by COD removal.

SECTION XI. TRANSPORTATION

- o Proper Shipping Name or Description: XYLENOLS
- o DOT Hazard Classification: ORM A
- o UN or DOT Number: 2261

SECTION XII. REFERENCES

1. Toxicity results are from unpublished data, Health, Safety, and Human Factors Laboratory, Eastman Kodak Company, Rochester, New York.
2. Hodge, H.C. and Sterner, J.H., American Industrial Hygiene Association Quarterly., 10, 93 (1949).
3. Hygiene and Sanitation: English Translation of Gigiiena Sanitariya, 33 (9), 329 (1968).
4. Pitter, P., "Determination of Biological Degradability of Organic Substances," Water Res., 10 (3), 231-5 (1976).

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