



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 03/24/2004
Date Updated: 09/02/2002
Version 1.30

Section 1 - Product and Company Information

Product Name p-TOLUALDEHYDE, 97%
Product Number T35602
Brand Aldrich Chemical

Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS, MO 63103 US
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Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
4-METHYLBENZALDEHYDE	104-87-0	No

Formula C8H8O
Synonyms p-Formyltoluene, p-Methylbenzaldehyde, 4-Methylbenzaldehyde, p-Tolualdehyde (6CI), 4-Tolualdehyde

Section 3 - Hazards Identification

Emergency Overview
Harmful.
Harmful if swallowed. Irritating to eyes, respiratory system, and skin.
Combustible liquid.

HMIS Rating
Health: 1 Flammability: 2 Reactivity: 0

NFPA Rating
Health: 1 Flammability: 2 Reactivity: 0

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

Section 4 - First Aid Measures

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.

Dermal Exposure
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Flash Point: 162 °F 72 °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.

Specific Hazard(s)

Combustible liquid. Emits toxic fumes under fire conditions.

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

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling

User Exposure

Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed. Keep away from heat, sparks, and open flame. Store in a cool dry place.

Special Requirements

Store under inert gas.

Section 8 - Exposure Controls / PPE

Engineering Controls

Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment

Respiratory

Government approved respirator.

Hand

Compatible chemical-resistant gloves.

Eye

Chemical safety goggles.

General Hygiene Measures

Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance
Physical State Color
Clear liquid Light brown

Molecular Weight: 120.15 AMU

Property **Value** **At Temperature or Pressure**

pH	N/A	
BP/BP Range	204 - 205 °C	760 mmHg
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	1.016 g/cm3	
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	162 °F	Method: closed cup
Flash Point °C	72 °C	Method: closed cup
Explosion Limits	N/A	

Flammability N/A
Autoignition Temp N/A
Refractive Index 1.5425
Solubility N/A

N/A = not available

Section 10 - Stability and Reactivity**Stability**

Stable
Stable.

Materials to Avoid

Strong bases, Strong oxidizing agents, Strong reducing agents.

Hazardous Decomposition Products

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide.

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information**Route of Exposure****Skin Contact**

Causes skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

Causes eye irritation.

Inhalation

Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion

Harmful if swallowed.

RTECS Number: CU7034500

Toxicity Data

Oral - Rat: 1,600 mg/kg (LD50)

Remarks: Behavioral:Somnolence (general depressed activity).

Intraperitoneal - Rat: 800 MG/KG (LD50)

Remarks: Behavioral:Somnolence (general depressed activity).

Oral - Mouse: 3,200 mg/kg (LD50)

Remarks: Behavioral:Somnolence (general depressed activity).

Intraperitoneal - Mouse: 400 MG/KG (LD50)

Remarks: Behavioral:Somnolence (general depressed activity).

Behavioral:Ataxia.

Skin and Appendages: Other: Hair.

Irritation Data

Skin - Rabbit: 500 mg

Remarks: Moderate irritation effect

Eyes - Rabbit: 100 mg

Remarks: Moderate irritation effect

Section 12 - Ecological Information

No data available.

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

Contact a licensed professional waste disposal service to dispose of this material.

This combustible material may be burned 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: Combustible liquid, n.o.s.

UN#: 1993

Class: COMBUSTIBLE LIQUID

Packing Group: Packing Group III

Hazard Label: None.

PIH: Not PIH

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: Xn

Indication of Danger

Harmful.

Risk Statements R: 22 36/37/38

Harmful if swallowed. Irritating to eyes, respiratory system, and skin.

Safety Statements S: 26 36

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Classification and Label Text

Indication of Danger

Harmful.

Risk Statements

Harmful if swallowed. Irritating to eyes, respiratory system, and skin.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Statements

Combustible liquid.

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. 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.