

Material Safety Data Sheet



Formalin, 37% Formaldehyde

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Carolina Biological Supply Company

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CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Formaldehyde, 37%

Product Code(s): 86-3161, 86-3461, 86-3463, 86-3465, 86-3467, 86-3480, 86-3482, 86-3484

Size: Various

Chemical Name: Formaldehyde, aqueous solution

CAS Number: 50-00-0

Formula: CH₂O in H₂O

Synonyms: Methanal, Formalin

Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: **DANGER** - May cause cancer. Flammable. Causes burns.

Potential Health Effects:

Eyes: Causes severe burns and eye damage upon direct contact. Vapor is irritating.

Ingestion: May severely irritate or damage digestive tract.

Skin: May cause severe irritation or chemical burns.

Inhalation: May severely irritate or damage mucous membranes and respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Formaldehyde (CAS # 50-00-0) 37%; Methanol (CAS # 67-56-1) 12%

TLV units: Formaldehyde: Ceiling 0.3 ppm

Methanol: 200 ppm (TWA), STEL 250 ppm (skin)

PEL units: Formaldehyde: OSHA-PEL: 0.75 ppm (TWA), STEL 2 ppm, Ceiling 5 ppm

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Ingestion - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): 50 °C

NEPA Rating:

Health: 3

Fire: 2

Reactivity: 1

Extinguisher Media: Use dry chemical, CO₂ or appropriate foam.

Flammable Limits in Air % by Volume: 7% 73%

Autoignition Temperature: 424 °C

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Vapours may travel back to ignition source. Closed Containers exposed to heat may explode.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Do not breathe dust/vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution. Keep container tightly closed in a cool, well-ventilated place.

Store in a secure area suitable for corrosives.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: N/A

Boiling Point: 97.6 to 100 °C

Vapor Density(Air=1): Approx. 1

Percent Volatile by Volume: N/A

Solubility in Water: Soluble

Melting Point: -92 °C

Vapor Pressure: 17-20 mmHg at 25 °C

Specific Gravity (H₂O=1): 1.08

Evaporation Rate (BuAc=1): N/A

Appearance and Odor: Clear, colorless liquid with pungent odor.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition.

Incompatibility (Materials to Avoid): Oxidizers, Acids, Nitrates, Reducing agents, Bases, Isocyanates, Amines, Sulfides, Cyanides,

Hazardous Decomposition Products: N/A

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: orl-rat LD50: 100 mg/kg

Effects of Overexposure:

Acute: See Section 2

Chronic: Listed by NTP, IARC as causing cancer.

Conditions Aggravated by Overexposure: Eye disorders, Liver disorders, Impaired Kidney Function, Cardiovascular system,

Target Organs: Kidneys, Liver, Skin, Eyes, Cardiovascular system,

Primary Route(s) of Entry: Inhalation, ingestion, eye or skin contact.

Section 12 - Ecological Data

EPA Waste Numbers: U122, U154

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: UN1198, Formaldehyde solutions, flammable, 3, III

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

WARNING: This product contains a chemical known to the state of California to cause cancer.

Hazard Category for SARA Section 311/312 Reporting: Acute Fire Chronic

Name List:

Formaldehyde - Yes

Methanol - Yes

Chemical Category:

Formaldehyde - No

Methanol - No

CERCLA Section 103 RQ(lb.): Formaldehyde - 100 lbs (45.4 kg)

Methanol - 5000 lbs (2270 kg)

RCRA Section 261.33: Formaldehyde - Yes

Methanol - Yes

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act