

## Material Safety Data Sheet



# Formaldehyde Solution, 10% Formalin, Neutral Buffered

**Revised:** 02/10/2012  
**Replaces:** 01/03/2012  
**Printed:** 02/10/2012

**Carolina Biological Supply Company**

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

**CAROLINA**  
www.carolina.com

### Section 1 - Product Description

**Product Name:** Formaldehyde Solution. 10% Formalin Neutral buffered

**Product Code(s):** 86-3551, 86-3553

**Size:** Various

**Chemical Name:** Formaldehyde, aqueous solution

**CAS Number:** See Section 3

**Formula:** CH<sub>2</sub>O in H<sub>2</sub>O

**Synonyms:** N/A

**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:** **WARNING** - Irritating to eyes and skin. May cause cancer by inhalation.

**Potential Health Effects:**

**Eyes:** May cause irritation.

**Skin:** May cause irritation to skin.

**Ingestion:** May cause gastrointestinal discomfort.

**Inhalation:** May cause irritation to respiratory tract.

### Section 3 - Composition / Information on Ingredients

**Principal Hazardous Components:** Sodium Dihydrogen Phosphate (CAS#7558-80-7) 0.4%; Sodium Phosphate, Dibasic (CAS#7558-79-4) 0.65%; Methanol (CAS#67-56-1) 1.2%; Formaldehyde (CAS#50-00-0) 3.7%

**TLV units:** Methanol: ACGIH-TLV 200 ppm (TWA); 250 ppm (STEL) (Skin)

Formaldehyde: ACGIH-TLV 0.3 ppm (Ceiling)

**PEL units:** Methanol: OSHA-PEL 200 ppm (TWA)

Formaldehyde: OSHA-PEL 0.75 ppm (TWA); 2 ppm (STEL)

### 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. If swallowed, rinse mouth with water (only if the person is conscious).  
**Inhalation** - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

## Section 5 - Firefighting Procedures

**Flash Point (Method Used):** N/A

**NFPA Rating:**

**Health:** 2

**Fire:** 1

**Reactivity:** 0

**Extinguisher Media:** Use media suitable to extinguish surrounding fire.

**Flammable Limits in Air % by Volume:** (Formaldehyde) LEL: 7% UEL: 73%

**Autoignition Temperature:** N/A

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

**Unusual Fire and Explosion Hazards:** N/A

## 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:** Keep container tightly closed in a cool, well-ventilated place.

Avoid excess heat.

Avoid creating and inhaling spray or mist.

Avoid contact with skin and eyes. Suitable for any general chemical storage.

## 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:** Approx. 100 °C

**Vapor Density(Air=1):** N/A

**Percent Volatile by Volume:** N/A

**Solubility in Water:** Soluble

**Melting Point:** N/A

**Vapor Pressure:** 17 to 20 mmHg at 25 °C

**Specific Gravity (H<sub>2</sub>O=1):** Approx. 1

**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):** Acids, Alkalis, Isocyanates, Halogens, Sulfides, Reducing agents, Nitrates, Oxidizers,

**Hazardous Decomposition Products:** COx, Aldehydes,

**Hazardous Polymerization:** Will not occur

## Section 11 - Toxicity Data

**Toxicity Data:** (Sodium Dihydrogen Phosphate) orl-rat LD50 8290 mg/kg

(Sodium Phosphate, Dibasic) orl-rat LD50 17 g/kg

(Methanol) orl-rat LD50 5600 mg/kg

(Formaldehyde) orl-rat LD50 800 mg/kg

**Effects of Overexposure:**

**Acute:** See Section 2

**Chronic:** Mutation data cited. Reproductive data cited. Listed by NTP, IARC as causing cancer. Tumorigenic data cited.

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

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

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

## Section 12 - Ecological Data

**EPA Waste Numbers:** Formaldehyde (U122) and methanol (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:** N/A

## 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 Chronic

**Name List:**

Sodium Dihydrogen Phosphate - No

Sodium Phosphate, Dibasic - No

Methanol - Yes

Formaldehyde - Yes

**Chemical Category:**

Sodium Dihydrogen Phosphate - No

Sodium Phosphate, Dibasic - No

Methanol - No

Formaldehyde - No

**CERCLA Section 103 RQ(lb.):** Sodium Dihydrogen Phosphate - No

Sodium Phosphate, Dibasic - 5000

Methanol - 5000 lbs (2270 kg)

Formaldehyde - 100 lbs (45.4 kg)

**RCRA Section 261.33:** Sodium Dihydrogen Phosphate - No  
Sodium Phosphate, Dibasic - No  
Methanol - Yes  
Formaldehyde - 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