

**MSDS****Material Safety Data Sheet**

24 HOUR EMERGENCY  
TELEPHONE NUMBER  
CALL CHEMTREC  
1-800-424-9300

189 Twin County Road • Morgantown, PA 19543 • (610) 524-5810

### FORMALIN SOLUTION 10% Neutral Buffered MATERIAL SAFETY DATA SHEET

The following information is believed to be correct but is not warranted as such, nor does it purport to be all inclusive.

#### Product Identification

**Product Name:** 10% Neutral Buffered Formalin  
**Product Code:** PFNBF-180, PFNBF-240, PFNBF-360, PFNBF-480, PFNBF-1000  
**Product Description:** A buffered aqueous solution of formaldehyde and methanol

|                 |      |
|-----------------|------|
| Health          | 2    |
| Flammability    | 1    |
| Reactivity      | 0    |
| Physical Hazard | None |

#### Section 1 - Shipping Data

**DOT Shipping Name:\*** Ground shipments Not regulated **Tel. # for information:** (610) 524-5810  
**DOT Hazard Class:** Not applicable **Emergency Tel. #:** (800) 424-9300  
**DOT Identification:** Not applicable **Prepared by:** P.B.

#### Section 2 - Hazardous Ingredients / Identity Information

| CHEMICAL COMPONENTS       | CAS#      | %    | OSHA PEL    | ACGIH TLV    |
|---------------------------|-----------|------|-------------|--------------|
| Formaldehyde              | 50-00-0   | 3-4% | 0.75 ppm    | 1 ppm STEL   |
| Methyl Alcohol            | 67-56-1   | ~1%  | 200 ppm TWA | 200 ppm STEL |
| Sodium Phosphate, Mono    | 7758-80-7 | < 1% | N/A         | N/A          |
| Sodium Phosphate, Dibasic | 7558-79-4 | < 1% | N/A         | N/A          |

Formaldehyde and Methyl Alcohol are subject to the reporting requirements of SARA 313 and 40CFR372.

**Section 3 - Physical / Chemical Characteristics**

|  |         |  |          |
|--|---------|--|----------|
| <b>Boiling Point:</b>                          | ~100° C | <b>Specific Gravity (H<sub>2</sub>O = 1):</b>  | 1.01     |
| <b>Vapor Pressure (mm Hg and Temperature):</b> | 18@20°C | <b>Evaporation Rate ( n-butyl alcohol= 1):</b> | 1        |
| <b>Vapor Density (AIR=1):</b>                  | 1       | <b>Solubility in Water:</b>                    | Complete |

**Appearance and Odor:** Clear, colorless solution. Characteristic odor of formaldehyde.

**Section 4 - Fire and Explosion Hazard Data**

**Flash Point (Method Used):** Not applicable                      **Flammability Limits:** Not applicable  
**Extinguishing Media:** Dry Chemical, carbon dioxide or alcohol type foam.  
**Special Fire Fighting Procedures:** Use self-contained breathing apparatus and full protective clothing.  
**Unusual Fire and Explosive Hazards:** Pyrolysis will release toxic compounds such as carbon monoxide and formaldehyde.

**Section 5 - Reactivity Data**

**Stability:** Stable under normal conditions                      **Conditions to Avoid:** Heat, flames and sparks.  
Polymerizes slowly to form paraformaldehyde.  
**Incompatibility (Materials to Avoid):** Strong oxidizers, strong alkalis, acids, phenol and urea.  
**Precautions to be taken in Handling and Storage:** Store at room temperature. Do not freeze.

**Section 6 - Health Hazard Data**

|                                |                           |                                |                               |
|--------------------------------|---------------------------|--------------------------------|-------------------------------|
| <b>Routes of Entry</b>         | <b>Inhalation?</b><br>yes | <b>Skin Absorption?</b><br>yes | <b>Ingestion?</b><br>yes      |
| <b>Carcinogenicity?</b><br>yes | <b>NTP?</b><br>no         | <b>IARC Monographs?</b><br>yes | <b>OSHA Regulated?</b><br>yes |

**Health Hazards (Acute and Chronic):** . Inhalation can lead to congestion, coughing and shortness of breath. Frequent skin contact leads to drying and scaling. Ingestion will damage the throat, stomach and intestines resulting in nausea, vomiting, abdominal pain and diarrhea. Lowered blood pressure, spontaneous abortion, loss of consciousness and kidney damage may result. Inhalation of high concentrations of vapor (14 ppm) has caused cancer in laboratory animals. Genetic damage in bacteria has been demonstrated.

**Medical Conditions Generally Aggravated by Exposure:** People who regularly work with formaldehyde are required to have regular medical surveillance.

**Emergency and First Aid Procedures:** *Seek medical assistance for further treatment, observation and support if necessary.*

**Eye Contact:** Irrigate immediately with large quantity of water for at least 15 minutes. Get medical attention immediately.

**Skin Contact:** Remove contaminated clothing and flush with water.

**Ingestion:** Dilute immediately with water or milk. Induce vomiting followed by a slurry of activated charcoal.. Do not induce vomiting if patient is unconscious or drowsy, contact physician.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. Contact physician.

**All other means of exposure:** Contact poison control center immediately. Be prepared to provide hazardous ingredient information.

**Section 7 - Precautions For Safe Handling and Use**

**Steps to be Taken In Case of Spill Or Release:** Absorb with a suitable absorbent (such as paper towel) and dispose.

**Waste Disposal Methods:** The disposal of formaldehyde is usually restricted. Incineration is the preferred method of disposal. Waste water disposal permits sometimes allow small quantities to be flushed down drain with excess water. Ensure compliance with all government regulations.

**Section 8- Control Measures**

**Respiratory Protection (Specify Type):** Recommended.

**Ventilation:** Use local mechanical exhaust such as a chemical fume hood.

**Protective Gloves:** Use rubber or plastic gloves that are impervious to formaldehyde.

**Eye Protection:** Laboratory safety goggles or similar products are recommended as part of good laboratory practice.

**Other Protective Clothing And Equipment:** Use chemical resistant clothing.

**Hygienic Work Practices:** Wash well after handling, especially before eating and smoking.

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