

**Safety Data Sheet**

**Product No. 18508 Formaldehyde, 37%, microfiltered (Formalin)**

**Issue Date (05-08-15)**

**Review Date (08-31-17)**

**Section 1: Product and Company Identification**

**Product Name: Formaldehyde, 37%, microfiltered (Formalin),**

Synonym: Methanal, Methyl aldehyde, Methylene oxide

**Company Name**

**Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477**

Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

**CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day**

**CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day**

**Section 2: Hazard Identification**

**2.1 Classification of the substance or mixture**

**GHS Pictograms**



GHS02 GHS06 GHS08 GHS05 GHS07

**GHS Categories**

GHS02 - Flammable

Flam. Liq. 3 H226: Flammable liquid and vapor.

GHS06 - Toxic

Acute Tox. 3 H311: Toxic in contact with skin.

Acute Tox. 3 H331: Toxic if inhaled

Acute Tox. 4 H302: Harmful if swallowed

GHS08 - Health

Carc. 2 H351: Suspected of causing cancer.

STOT SE 1 H370: Causes damage to organs.

GHS05 – Corrosion

Skin Corr. 1B H314: Causes severe skin burns and eye damage.

Eye Dam. 1 H318: Causes serious eye damage.

GHS07 – Irritant

Skin Sens. 1 H317: May cause an allergic skin reaction.

**2.2 Label elements**

**Hazard pictograms**



GHS02



GHS05



GHS06



GHS08

**Signal Word: DANGER**

**Hazard-determining components of labeling:** formaldehyde, methyl alcohol

**Hazard statements:**

- H226 Flammable liquid and vapor.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H331 Toxic if inhaled.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H351 Suspected of causing cancer.
- H370 Causes damage to organs.

**Precautionary statements:**

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- P322 Specific measures (see on this label).
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

PBT: NA

vPvB: NA

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Label: T; Toxic - R23/24/25-39/23/24/25: Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Label: C; Corrosive - R34: Causes burns.

Label: Xn; Harmful - R40: Limited evidence of a carcinogenic effect.

Label: Xi; Irritant - R37: Irritating to respiratory system.

Label: Xi; Sensitizing - R43: May cause sensitisation by skin contact.

**Risk phrases:**

23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.

34 - Causes burns.

37 - Irritating to respiratory system.

39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

40 - Limited evidence of a carcinogenic effect.

43 - May cause sensitisation by skin contact.

**Safety phrases:**

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

36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

60 - This material and its container must be disposed of as hazardous waste.

**Health Effects:**

NFPA Hazard Rating: Health: 3; Fire: 2; Reactivity: 0

HMIS® Hazard Rating: Health: 4; Fire: 2; Reactivity: 0; Chronic Health Hazard: \*

(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

**Emergency overview**

Appearance: Colorless liquid.

Immediate effects: Toxic

**Potential health effects**

Primary Routes of entry: Inhalation, ingestion, contact with skin and eyes.

Signs and Symptoms of Overexposure: ND

Eyes: Toxic by contact with eye. Toxic: danger of very serious irreversible effects in contact with eyes.

Skin: Toxic in contact with skin. Toxic: danger of very serious irreversible effects in contact with skin.

Ingestion: Toxic if swallowed. Toxic: danger of very irreversible effects if swallowed.

Inhalation: Toxic by inhalation, Toxic: danger of very serious irreversible effects through inhalation.

Chronic Exposure: ND

Chemical Listed As Carcinogen Or Potential Carcinogen: Yes.

See Toxicological Information (Section 11)

**Potential environmental effects**

See Ecological Information (Section 12)

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**Section 3: Composition / Information on Ingredients**

Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)	%	OSHA PEL mg/m3	ACGIH TLV mg/m3	NTP	IARC	OSHA regulated
Formaldehyde (CAS: 50-00-0) EINECS: 200-001-8 H301; H311; H331; H351; H314; H317	25-50	TWA 0.75 ppm	0.37 mg/m <sup>3</sup> 0.3 ppm	R	Group 1	Yes
Methyl Alcohol (67-56-1) EINECS: 200-659-6 H225; H302; H312; H315; H332; H370	10-25	260 mg/m <sup>3</sup> 200 ppm	250 ppm	No	No	No

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**Section 4: First Aid Measures**

**If accidental overexposure is suspected**

General information: Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Remove breathing equipment only after contaminated clothing have been completely removed. In case of irregular breathing or respiratory arrest provide artificial respiration.

Eye(s) Contact: Rinse opened eye for several minutes under running water. Then consult a doctor.  
Skin Contact: Immediately wash with water and soap and rinse thoroughly.  
Inhalation: Supply fresh air or oxygen; call for doctor. In case of unconsciousness, place patient stably in side position for transportation.  
Ingestion: Do not induce vomiting; call for medical help immediately. Drink plenty of water and provide fresh air. Call for a doctor immediately.

**Note to physician**

Treatment: ND

Medical Conditions generally Aggravated by Exposure: ND

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**Section 5: Fire Fighting Measures**

Flash Point: 60 °C

Ignition temperature: 300 °C

Flammable Limits: Lower: 5.5 Vol %, Upper: 73.0 Vol %.

Auto-ignition point: Product is not self-igniting.

Fire Extinguishing Media: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special Fire Fighting Procedures: Use mouth respiratory protective device.

Unusual Fire and Explosion Hazards: Product does not present an explosion hazard.

Hazardous combustion products: Oxides of carbon.

DOT Class: Flammable, Corrosive.

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**Section 6: Accidental Release Measures**

Steps to be Taken in Case Material is Released or Spilled

**Personal precautions, protective equipment, and emergency procedures:** Wear protective equipment. Keep unprotected persons away.

**Environmental precautions:** Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Ensure adequate ventilation.

**Waste Disposal Methods:** Dispose of waste according to Federal, State and Local Regulations.

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**Section 7: Handling and Storage**

Precautions to be taken in Handling and Storage:

Handling: Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care. Prevent formation of aerosols. Keep ignition sources away - Do not smoke. Keep respiratory protective device available.

Storage: Keep from freezing. Keep container tightly sealed.

Storage temperature: Room temperature.

Storage Pressure: NA

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**Section 8: Exposure Controls / Personal Protection**

**Ingredients with limit values that require monitoring at the workplace**

<b>50-00-0 Formaldehyde</b>	
<b>WEL</b>	Short-term value: 2.5 mg/m <sub>3</sub> , 2 ppm Long-term value: 2.5 mg/m <sub>3</sub> , 2 ppm
<b>67-56-1 Methyl alcohol</b>	
<b>WEL</b>	Short-term value: 333 mg/m <sub>3</sub> , 250 ppm Long-term value: 266 mg/m <sub>3</sub> , 200 ppm

**General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with the eyes and skin.

### Engineering Controls

Ventilation required: Ensure good ventilation/exhaustion at the workplace. Use a chemical fume hood.

### Personal Protection Equipment

Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protective gloves: Wear protective gloves.

Skin protection: Wear protective gloves and clothing.

Eye protection: Tightly sealed goggles.

Additional clothing and/or equipment: Eye wash station.

### Exposure Guidelines

See Composition/Information on Ingredients (Section 3)

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## Section 9 Physical and Chemical Properties

Appearance and Physical State: Colorless liquid.

Odor (threshold): Strong (ND)

Specific Gravity (H<sub>2</sub>O=1): 0.9045 g/cm<sup>3</sup>

Vapor Pressure at 20 °C: 128 hPa

Vapor Density (air=1): ND

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND

Boiling Point: 64 °C

Freezing point / melting point: ND

pH: 7

Solubility in Water: Fully miscible.

Organic solvents: 49.0 %, Water: 51.0 %

VOC (EC) 49.00 %

Molecular Weight: NA

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## Section 10: Stability and Reactivity

Stability: Stable.

Conditions to Avoid: No further relevant information available.

Materials to Avoid (Incompatibility): No further relevant information available.

Hazardous Decomposition Products: No decomposition if used according to specifications.

Hazardous Polymerization: No dangerous reactions known.

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## Section 11: Toxicological Information

### Results of component toxicity test performed

Acute toxicity - LD/LC50 values relevant for classification:

50-00-0 Formaldehyde		
Oral	LD50	>200 mg/kg (Rat)
67-56-1 Methyl alcohol		
Oral	LD50	5628 mg/kg (Rat)
Dermal	LD50	15800 mg/kg (Rabbit)

### Primary irritant effect

On the skin: Caustic effect on skin and mucous membranes.

On the eye: Strong caustic effect.

Sensitization: Sensitization possible through skin contact.

### **Additional toxicological information**

The product shows the following dangers according to the calculation method of the General EU Classification. Guidelines for Preparations as issued in the latest version:

Toxic, Corrosive, Irritant, Harmful

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of the esophagus and stomach.

Human experience: Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach

This product **does** contain compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

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### **Section 12: Ecological Information**

#### **Ecological Information**

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

#### **Behavior in environmental systems**

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

#### **Additional ecological information**

General notes: Water hazard class 2 (German Regulation) (Self-assessment): Hazardous for water. Do not allow product to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or un-neutralized. Danger to drinking water if even small quantities leak into the ground.

Chemical Fate Information: ND

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### **Section 13 Disposal Considerations**

RCRA 40 CFR 261 Classification: ND

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

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### **Section 14: Transportation Information**

US DOT Information: Proper shipping name: Formaldehyde solutions, flammable

Hazard Class: 3

Subsidiary Hazard Class: 8

Packaging group: III

UN Number: UN1198

IATA: Proper shipping name: Formaldehyde solutions, flammable

Hazard Class: 3

Subsidiary Hazard Class: 8

Packaging group: III

UN Number: UN1198

Marine Pollutant: No

Canadian TDG: Formaldehyde solutions, flammable

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### **Section 15: Regulatory Information**

#### **United States Federal Regulations**

SDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.

SARA: Section 355 (extremely hazardous substances): 50-00-0 formaldehyde.

SARA Title III: Section 313 (Specific toxic chemical listings): 50-00-0 formaldehyde, 67-56-1 Methyl Alcohol

RCRA: ND

TSCA: All ingredients are listed.

CERCLA: Formaldehyde 50-00-0: RQ = 100 lbs (45.4 Kg).

#### **State Regulations**

California Proposition 65: This chemical is known to the State of California to cause cancer (50-00-0 formaldehyde).

Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.

Chemicals known to cause developmental toxicity: 67-56-1 Methyl Alcohol.

**Carcinogenic categories:**

EPA (Environmental Protection Agency): 50-00-0 formaldehyde - B1

TLV (Threshold Limit Value established by ACGIH): 50-00-0 formaldehyde - A2

NIOSH-Ca (National Institute for Occupational Safety and Health): 50-00-0 formaldehyde.

OSHA-Ca (Occupational Safety & Health Administration): 50-00-0 formaldehyde.

A Chemical Safety Assessment has not been carried out.

**International Regulations**

Canada WHMIS: Canadian Domestic Substances List (DSL): All ingredients are listed.

Canadian Ingredient Disclosure list (limit 0.1%): 50-00-0 formaldehyde.

Europe EINECS Numbers: 200-659-6

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**Section 16: Other Information**

Label Information: Flammable, Toxic, Health Hazard, Corrosive, Irritant.

European Risk and Safety Phrases: See Section 2

European symbols needed: T - Toxic, C - Corrosive, X<sub>n</sub> - Harmful, X<sub>i</sub> – Irritant, Xi – Sensitizing.

Canadian WHMIS Symbols: ND

**Abbreviations used in this document**

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

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**Disclaimer**

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