

Safety Data Sheet

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

Issue Date (04-05-13)

Review Date (01-09-15)

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

Domestic Phone (800) 237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

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Chemtrec Emergency Number 1-800-424-9300 24 hrs a day.

Section 2: Hazard Identification

GHS Pictograms:



Flammable



Toxic



Health hazard



Corrosive



Irritant

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 hazard - Carc. 2, H351, Suspected of causing cancer.

- STOT SE 1 H370-H335-H336 Causes damage to organs.

May cause respiratory irritation. May cause drowsiness or dizziness.

GHS05: Corrosion - Skin Corr. 1B, H314, Causes severe skin burns and eye damage.

GHS07: Irritant.

Signal Word: DANGER

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: 3; Fire: 2; Reactivity: 0; Chronic Health Hazard: *
(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

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)

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 ³ 0.3 ppm	R	Group 1	Yes
Methyl Alcohol (67-56-1) EINECS: 200-659-6 H225; H301; H311; H331; H370	10-25	260 mg/m ³ 200 ppm	250 ppm	No	No	No

Section 4: First Aid Measures

If accidental overexposure is suspected

General information: Immediately remove any clothing soiled by the product. 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: No further relevant information available.

Medical Conditions generally Aggravated by Exposure: No further relevant information available.

Section 5: Fire Fighting Measures

Flash Point: 60 °C

Ignition temperature: 455 °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: Advice for fire-fighters. Use protective equipment:

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.

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: Wear protective equipment. Keep unprotected persons away. 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.

Section 7: Handling and Storage

Precautions to be taken in Handling and Storage: 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. Keep from freezing. Keep container tightly sealed.

Storage temperature: Store room temperature.

Storage Pressure: NA

Section 8: Exposure Controls / Personal Protection

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)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Colorless liquid.

Odor (threshold): Strong (ND)

Specific Gravity (H₂O=1): 0.9045 g/cm³

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

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.

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
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 any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

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

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.

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

Section 15: Regulatory Information

United States Federal Regulations

MSDS 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:

Chemicals known 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

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_n - Harmful, X_i – 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

Disclaimer

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