



## MATERIAL SAFETY DATA SHEET

**Hacco, Inc.**  
**110 Hopkins Drive**  
**Randolph, WI 53956**  
**(920) 326-2461**  
**(Regulatory Office)**  
**(920) 326-5141**  
**(Manufacturing Location)**

**In Case of Emergency, Call:**  
**1-800-498-5743 (U.S. Medical Emergency)**  
**1-651-523-0318 (International, Medical Emergency)**  
**1-800-424-9300 (U.S. CHEMTREC)**  
**1-703-527-3887 (International, CHEMTREC)**  
**(collect calls will be accepted on all lines)**

### 1. PRODUCT IDENTIFICATION

Product Name: **Formalin 10%**  
EPA Signal Word: Not Applicable  
Chemical Name: Formaldehyde  
Chemical Class: Reagent  
EPA Registration Number: Not Required

**Section(s) Revised: Regulatory Review**

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen	Percentage By Weight
Formaldehyde (CAS No. 50-00-0)	0.75 ppm (8 hr TWA) 2.00 ppm STEL	0.37 mg/m <sup>3</sup>	Not Established	NTP-Suspect Carcinogen IARC-Group 1 OSHA-Yes, 1910.1048	10.0%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

### 3. HAZARDS IDENTIFICATION

#### Health Effects

Eyes: This product is a significant eye hazard.  
Skin: This product is a strong skin sensitizer.  
Inhalation: This product is a significant inhalation hazard.  
Ingestion: This product is a significant ingestion hazard.

#### Physical Properties

Appearance: Clear liquid  
Odor: Pungent formaldehyde odor

#### Unusual Fire, Explosion, and Reactivity Hazards

None known.

#### 4. FIRST AID MEASURES

Have the product container, label, or Material Safety Data Sheet with you when calling a poison control center or doctor, or going for treatment. **FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL 1-800-498-5743 (U.S. Medical Emergencies) or 1-651-523-0318 (International Medical Emergencies, Collect Calls will be accepted).**

**Ingestion:** **SEEK MEDICAL TREATMENT IMMEDIATELY.** Have the person sip 2-4 glasses of water or milk if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Eye Contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. **SEEK MEDICAL TREATMENT IMMEDIATELY.**

**Skin Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. **SEEK MEDICAL TREATMENT IMMEDIATELY.** Wash contaminated clothing before reuse.

**Inhalation:** Move person to fresh air. If person is not breathing, call **911** or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible. If breathing is difficult, give oxygen. **SEEK MEDICAL TREATMENT IMMEDIATELY.**

Notes to Physician

None.

Medical Condition Likely to be Aggravated by Exposure

None known.

#### 5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method):	> 200° F	
Flammable Limits (% in Air):	Lower: % Not Available	Upper: % Not Available
Autoignition Temperature:	Not Available	
Flammability:	Not Flammable	
Extinguishing Media:	Fog or Water Spray, Alcohol Foam, Carbon Dioxide	

Hazardous Decomposition Products:

Irritating and Toxic Gases, Oxides of Carbon

Unusual Fire, Explosion, and Reactivity Hazards

None known.

In Case of Fire

Evacuate personnel to a safe area. Cool containers by flooding with quantities of water until well after the fire is out. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear. Avoid using heavy streams of water.

#### 6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Wear appropriate personal protective equipment during cleanup. Isolate spill or leak area immediately. Ventilate closed spaces before entering. Do not touch or walk through spilled material. Keep unauthorized personnel away.

**Small Spills:** Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

**Large Spills:** Dike ahead of liquid spill for later disposal.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

## 7. HANDLING AND STORAGE

Store the material in original container, in a secure, dry, well-ventilated area out of reach of children and domestic animals. Avoid freezing or excessive heat. Keep container tightly closed. Avoid inhalation. Avoid breathing spray vapors or mists of this product. Avoid contact with eyes, skin, or clothing. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling. Wash clothing after use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING, AND USE OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Wear chemical goggles.

Skin Contact: Wear chemical-resistant (such as nitrile or butyl) gloves. **Gloves must be chemically resistant to formaldehyde.** Wear body protective clothing (long sleeved shirt and long pants) chemically resistant to formaldehyde solutions.

Inhalation: Use only with proper ventilation. Wear a NIOSH-approved respirator with a formaldehyde vapor cartridge if Airborne Exposure Limits are exceeded.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid
Odor:	Pungent formaldehyde odor
Boiling Point:	100° C
Specific Gravity:	1.0 g/ml (water=1)
Vapor Density:	>1 (air=1)
pH:	3.9
Solubility in H <sub>2</sub> O:	Completely Soluble
Vapor Pressure:	70 mm Hg
Percent Volatile:	Not Established
Evaporation Rate:	Similar to water (Butyl Acetate=1)

Note: The physical data presented here are typical values based on material tested, but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

## 10. STABILITY AND REACTIVITY

Stability:	Stable under normal use and storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Excessive heat will release formaldehyde vapors and/or nitrogen oxides.
Materials to Avoid:	Incompatible with strong oxidants, caustic soda, nitromethane, magnesium carbonate, peroxide, ash and alkalis, amines, and acids.
Hazardous Decomposition Products:	Irritating and Toxic Gases, Oxides of Carbon.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity/Irritation Studies

Ingestion:	<u>Acute Toxicity</u> 100 mg/kg (rat)
Dermal:	<u>Acute Dermal Effects</u> Not Available
Inhalation:	<u>Acute Inhalation Effects</u> Not Available

### Signs and Symptoms of Exposure:

Coughing, wheezing, difficulty breathing, nausea, skin rashes and/or burns, dizziness.

### Carcinogenicity

NTP:	Suspected Carcinogen
IARC:	Group 1
OSHA:	Yes, 1910.1048

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Not Available

### Environmental Fate

Not Available

## 13. DISPOSAL CONSIDERATIONS

### Container Disposal

*Plastic Containers:* Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

*For containers 1 gallon or less:* Do not reuse empty container (bottle, can, bucket). Wrap container and put in trash.

Do not contaminate water, food or feed by storage or disposal.

## 14. TRANSPORT INFORMATION

### DOT Classification (for container sizes 20 – 200 liter)

Proper Shipping Name:	Aviation regulated liquid, n.o.s. (formaldehyde)
Hazard Class:	9 (when shipped by air)
UN Number:	3334
Packing Group:	Not Applicable
Label:	Class 9
Special Instructions:	Not Applicable

### DOT Classification (for container sizes 4x1 gallon)

Proper Shipping Name:	Aviation regulated liquid, n.o.s. (formaldehyde)
Hazard Class:	9 (when shipped by air)
UN Number:	3334
Packing Group:	Not Applicable
Label:	Class 9
Special Instructions:	Not Applicable

IMDG Classification (for container sizes 20 – 200 liter)

Proper Shipping Name: Aviation regulated liquid, n.o.s. (formaldehyde)  
Hazard Class: 9 (when shipped by air)  
UN Number: 3334  
Packing Group: Not Applicable  
Label: Class 9  
Special Instructions: Not Applicable

IMDG Classification (for container sizes 4x1 gallon)

Proper Shipping Name: Aviation regulated liquid, n.o.s. (formaldehyde)  
Hazard Class: 9 (when shipped by air)  
UN Number: 3334  
Packing Group: Not Applicable  
Label: Class 9  
Special Instructions: Not Applicable

IATA Classification (for container sizes 20 – 200 liter & 4x1 gallon)

Proper Shipping Name: Aviation regulated liquid, n.o.s. (formaldehyde)  
Hazard Class: 9 (when shipped by air)  
UN Number: 3334  
Packing Group: Not Applicable  
Label: Class 9  
Special Instructions: Not Applicable

Canadian Classification (for container sizes 20 – 200 liter)

Proper Shipping Name: Aviation regulated liquid, n.o.s. (formaldehyde)  
Hazard Class: 9 (when shipped by air)  
UN Number: 3334  
Packing Group: Not Applicable  
Label: Class 9  
Special Instructions: Not Applicable

Canadian Classification (for container sizes 4x1 gallon)

Proper Shipping Name: Aviation regulated liquid, n.o.s. (formaldehyde)  
Hazard Class: 9 (when shipped by air)  
UN Number: 3334  
Packing Group: Not Applicable  
Label: Class 9  
Special Instructions: Not Applicable

**15. REGULATORY INFORMATION**

EPA SARA Title III Hazard Classification

Immediate N Fire N Sudden Release of Pressure N  
Delayed N Reactive N

Section 313 Toxic Chemicals

Not Listed

California Proposition 65

Not Listed

CERCLA/SARA 302 Reportable Quantity (RQ)

Not Listed

RCRA Hazardous Waste Classification (40 CFR 261)

Not Listed

**16. OTHER INFORMATION**

NFPA Hazard Ratings

Health: 1  
Flammability: 0  
Instability: 0

HMIS Hazard Ratings

Health: 1  
Flammability: 0  
Reactivity: 0

0 - Minimal  
1 - Slight  
2 - Moderate  
3 - Serious  
4 - Extreme

For Non-Emergency Questions About This Product Call:

1-800-621-8829

Neogen Corporation

Lexington, KY

[www.Hacco.com](http://www.Hacco.com)

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