

Formaldehyde, 37% Solution



MSDS # 292.00

Section 1: Product and Company Identification

Formaldehyde, 37% Solution

Synonyms/General Names: Formalin Solution**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300**CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

*Clear, colorless liquid, strong odor.***HMIS (0 to 4)**

Health	3
Fire Hazard	2
Reactivity	2

DANGER! Toxic by ingestion, inhalation, and skin absorption. Severe inhalation hazard, body tissue irritant, and a known carcinogen. Flammable liquid, keep away from all ignition sources

Target organs: Eyes, central nervous system, liver, kidneys.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Formaldehyde (50-00-0), 37%.

Methanol (67-56-1), 11%.

Water (7732-18-5), 52%.

Section 4: First Aid Measures

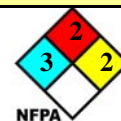
*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. **Do not induce vomiting.** Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.

Section 5: Fire Fighting Measures

Class IIIA Combustible Liquid. When heated to decomposition, emits acrid fumes

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact. Material is sensitive to static discharge.



Section 6: Accidental Release Measures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage

Red**Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Flammable Area [Red Storage] with other flammable materials and away from any strong oxidizers. Store in a dedicated flammables cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.

Section 8: Exposure Controls / Personal Protection

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines: Formaldehyde: OSHA PEL: 0.75 ppm, ACGIH TLV: 0.3 ppm ceiling, STEL: 0.37 mg/m³ ceiling

Section 9: Physical and Chemical Properties

Molecular formula	HCOH.	Appearance	Clear, colorless liquid.
Molecular weight	30.03.	Odor	Strong odor.
Specific Gravity	1.11 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	1.0.	Solubility	Completely soluble in water.
Melting Point	-8°C.	Evaporation rate	< 1 (<i>Butyl acetate = 1</i>).
Boiling Point/Range	96°C.	Partition Coefficient	N/A (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	33.2 mm Hg.	pH	N/A.
Flash Point:	62°C (144°F) CC.	LEL	7%.
Autoignition Temp.:	430°C (806°F).	UEL	70 %.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use. Avoid heat and ignition sources.

Incompatibility: Strong acids, phenols, strong oxidizers.

Shelf life: Fair shelf life, store in a cool, dry environment. May polymerize to an inert material.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. *Skin:* Redness, blistering, burning, itching, tissue destruction with slow healing. *Ingestion:* Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. *Inhalation:* Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Carcinogen. IARC group 1, NTP Reasonably expected, ACGIH A2

Sensitization: Skin and respiratory sensitizer

Formaldehyde: LD50 [oral, rat]; 100 mg/kg; LC50 [rat]; 590 mg/m³; LD50 Dermal [rabbit]; 2 mg/24H Severe Material has been found to be a carcinogen and may produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Formaldehyde, Solutions, Flammable.	Canada TDG:	Formaldehyde Solution, Flammable.
DOT Hazard Class:	3 (8), pg III.	Hazard Class:	3 (8), pg III.
Identification Number:	UN1198.	UN Number:	UN1198.

Section 15: Regulatory Information

EINECS: Listed (200-001-8) .

TSCA: All components are listed or are exempt.

WHMIS Canada: D1A, D2A, D2B Very toxic material, carcinogen.

California Proposition 65: Listed as a cancer causing agent.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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