

MSDS # 293.00

Formaldehyde, 5% Solution**Section 1: Product and Company Identification****Formaldehyde, 5% Solution****Synonyms/General Names:** Formaldehyde Solution, 5%**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**

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

Section 2: Hazards Identification*Clear colorless solution, strong odor.***WARNING!** Inhalation hazard, body tissue irritant, known carcinogen. Moderately toxic by ingestion, inhalation, and skin absorption. Contains flammable materials.

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

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

HMS (0 to 4)

Health	2
Fire Hazard	1
Reactivity	0

Section 3: Composition / Information on Ingredients

Formaldehyde, 37% (50-00-0), 5%.

Water (7732-18-5), 95%.

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. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

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 or 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**Green****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 General Storage Area [Green Storage] with other items with no specific storage hazards. 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 solution.
Molecular weight	30.03.	Odor	Strong odor.
Specific Gravity	1.01 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	0.7 (water).	Solubility	Soluble in water.
Melting Point	0°C.	Evaporation rate	> 1 (<i>Butyl acetate = 1</i>).
Boiling Point/Range	100°C.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	14 (water).	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.**Incompatibility:** Oxidizing materials, acids, alkalis, phenols, hydrochloric acid, ammonia, iodine, tannin, iron products, gelatin, bisulfite.**Shelf life:** Indefinite if stored properly.**Section 11: Toxicology Information****Acute Symptoms/Signs of exposure:** *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.**Ingestion:** Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,**Chronic Effects:** Formaldehyde is a known 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: Environmental Hazardous Substance, . liquid, n.o.s., (Formaldehyde and Methanol).	Canada TDG: Environmental Hazardous Substance, . liquid, n.o.s. (Formaldehyde and Methanol).
DOT Hazard Class: 9, pg III.	Hazard Class: 9, pg III.
Identification Number: UN3082.	UN Number: UN3082.

Section 15: Regulatory Information**EINECS:** Listed (200-001-8).**WHMIS Canada:** Not WHMIS Controlled.**TSCA:** All components are listed or are exempt.**California Proposition 65:** Listed as 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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