

Safety Data Sheet (SDS)

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Formaldehyde Solution

Signal Word
DANGER

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261

Chemtrec Emergency Phone Number: (800) 424-9804

Pictograms

SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Flammable liquids (Category 3). Combustible liquid (H227). Keep away from heat, sparks, open flames, and hot surfaces. No smoking (P210).



Hazard class: Acute toxicity, oral, dermal, and inhalation (Category 3). Toxic if swallowed, in contact with skin or if inhaled (H301+H311+P331). Do not eat, drink or smoke when using this product (P270).



Hazard class: Skin corrosion (Category 1). Causes severe skin burns and eye damage (H314).

Hazard class: Germ cell mutagenicity (Category 2). Suspected of causing genetic defects (H341).



Hazard class: Carcinogenicity (Category 1A). May cause cancer (H350). Obtain special instructions before use (P201).

Hazard class: Reproductive toxicity (Category 1A). May damage fertility or the unborn child (H360).

Hazard class: Specific target organ toxicity, single exposure (Category 1). Causes damage to organs (H370).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Formaldehyde	50-00-0	HCHO	30.03	37%
Methyl alcohol	67-56-1	CH ₃ OH	32.04	10-12%
	7732-18-5	H ₂ O	18.00	51-53%
Synonyms: Formalin; Methanal				

SECTION 4 — FIRST AID MEASURES

If exposed or concerned: Call a POISON CENTER or physician (P307+P311). **If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340). **If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If on skin or hair:** Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353). Wash contaminated clothing before reuse (P363). **If skin irritation or rash occurs:** Get medical advice or attention (P333+P313). **If swallowed:** Rinse mouth. Do NOT induce vomiting (P301+P330+P331). Immediately call a POISON CENTER or physician (P301+P310).

SECTION 5 — FIRE FIGHTING MEASURES

Class IIIA combustible liquid.

NFPA Code

Flash point: 85 °C Flammable limits: Lower: 7% Upper: 73% Autoignition Temperature: 300 °C

H-3

When heated, releases flammable fumes.

F-2

In case of fire: Use a tri-class dry chemical fire extinguisher (P370+P378).

R-0

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Remove all ignition sources and ventilate area. Contain spill with sand or other inert absorbent material; deposit in sealed bag or container. See Sections 8 and 13 for further information.

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #3. Store with hydrocarbons, oils, esters and aldehydes.

Keep container tightly closed (P233). Keep cool (P235). Do not breathe mist, vapors or spray (P260). Use only in a hood or well-ventilated area (P271). Keep away from flames and hot surfaces (P210).

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264).

Contaminated work clothing should not be allowed out of the workplace (P272). Use only in a hood or well-ventilated area (P271).

Exposure guidelines: TLV-C 0.3 ppm (ACGIH); PEL 0.75 ppm (OSHA).

Odor threshold 0.05 - 1 ppm. If the odor of formaldehyde is detected more ventilation is needed.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Colorless liquid. Characteristic pungent odor.

Boiling point: 101 °C

37% formaldehyde gas in water. Methanol added as a stabilizer.

Flash point: 85 °C

Specific gravity: 1.08

Soluble: Water and alcohol

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong acids, strong bases, and strong oxidizers.

Shelf life: Fair. Slowly polymerizes to polyformaldehyde.

Hazardous decomposition products: Toxic gases/fumes are given off during burning or thermal decomposition. During combustion carbon monoxide may be formed. Combustion may lead to formation of formic acid.

SECTION 11 — TOXICOLOGICAL INFORMATION

Exposure route: eyes, skin absorption and contact, ingestion, inhalation.

ORL-RAT LD₅₀: 100 mg/kg (as formaldehyde)

IHL-RAT LC₅₀: 203 mg/m³

Acute effects: Severe eye irritant, sensitizer.

SKN-RBT LD₅₀: 0.27 mL/kg

Chronic effects: Pulmonary edema, carcinogen, mutagen.

Target organs: Eyes, kidneys. Effects may be delayed.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.

Flinn Suggested Disposal Method #2 is one option.

SECTION 14 — TRANSPORT INFORMATION

UN2209—FORMALDEHYDE SOLUTIONS—HAZARD CLASS 8—PG III

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (200-001-8), RCRA code U122.

SECTION 16 — OTHER INFORMATION

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N.A. = Not available, not all health aspects of this substance have been fully investigated.

N/A = Not applicable

Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.

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