

FLINN SCIENTIFIC, INC.

Safety Data Sheet (SDS)

SDS #: 352.00

Revision Date: April 15, 2016

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Formaldehyde Solution

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

CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word **DANGER**

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%
Water	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.

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

When heated, releases flammable fumes.

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

NFPA CODE

H-3

F-2

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
Soluble: Water and alcohol	Specific gravity: 1.08

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 & contact, ingestion, inhalation.	ORL-RAT LD ₅₀ : 100 mg/kg (as formaldehyde)
Acute effects: Severe eye irritant, sensitizer.	IHL-RAT LC ₅₀ : 203 mg/m ³
Chronic effects: Pulmonary edema, carcinogen, mutagen.	SKN-RBT LD ₅₀ : 0.27 mL/kg

Target organs: Eyes, kidneys. Effects may be delayed.
N.A. = Not available, not all health aspects of this substance have been fully investigated.

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

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

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

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

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

Revision Date: April 15, 2016