

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 352.00

Revision Date: December 7, 2011

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Formaldehyde

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

CHEMTREC Emergency Phone Number: (800) 424-9300

SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Formaldehyde (50-00-0) 37%, Methyl alcohol (67-56-1) 6-15%, and Water (7732-18-5) 48-57%.

Synonym: Formalin; Methanal

CAS#: 50-00-0

SECTION 3 — HAZARDS IDENTIFICATION

Clear, colorless solution. Pungent odor.

Formaldehyde is a known human carcinogen (IARC-1).

Highly toxic by ingestion, inhalation, and skin absorption; severe body tissue irritant. Avoid all body contact.

FLINN AT-A-GLANCE

Health-3

Flammability-1

Reactivity-2

Exposure-3

Storage-0

0 is low hazard, 3 is high hazard

SECTION 4 — FIRST AID MEASURES

Call a physician and seek medical attention for further treatment, observation, and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

Eye or External: Immediately flush with fresh water for at least 15 minutes.

Internal: Rinse mouth. Give large quantities of water for dilution. Call a physician or poison control at once.

SECTION 5 — FIRE FIGHTING MEASURES

Class IIIA combustible liquid.

Flash point: 56 °C Flammable limits: Lower: 7% Upper: 73% Autoignition Temperature: 300 °C

When heated to decomposition, emits smoke and fumes. Carcinogen.

Fire Fighting Instructions: Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

H-3

F-2

R-0

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from the area and ventilate area. Contain the spill with sand or absorbent material and deposit in a 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, esters, and aldehydes.

Use and dispense in a hood.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire). **Odor threshold** 0.05 - 1 ppm. If the odor of formaldehyde is detected more ventilation is needed. Exposure guidelines: TWA 0.016 ppm (NIOSH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Colorless liquid with a pungent odor.

Solubility: Soluble in water and alcohol. 37% Formaldehyde gas in water.

Formula: HCHO

Formula weight: 30.03

Boiling point: -19.1 °C

Melting point: -92 °C

Flash point: 50 °C (122 °F)

Specific gravity: 0.815

SECTION 10 — STABILITY AND REACTIVITY

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

Shelf life: Fair. Slowly polymerizes to polyformaldehyde.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Highly toxic, severe eye irritant, sensitizer.

Chronic effects: Pulmonary edema, carcinogen, mutagen.

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

ORL-RAT LD₅₀: 100 mg/kg

IHL-RAT LC₅₀: 203 mg/m³

SKN-RBT LD₅₀: 270 mg/kg

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

Shipping name: Formaldehyde solutions, Flammable

Hazard class: 3, Flammable

UN number: UN1198

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

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

SECTION 16 — OTHER INFORMATION

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