

# FLINN SCIENTIFIC, INC.

## Safety Data Sheet (SDS)

SDS #: 355.00

Revision Date: December 13, 2013

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Formic Acid

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 (Category 4). Harmful if swallowed (H302).

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

Hazard class: Acute toxicity, inhalation (Category 3). Toxic if inhaled (H331). Avoid breathing gas, mist, vapors or spray (P261).

### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Formic acid	64-18-6	HCOOH	46.03	88% (23.4M)
Synonyms: Aminic acid solution; Methanoic acid solution				

### SECTION 4 — FIRST AID MEASURES

Immediately call a POISON CENTER or physician (P310). **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. 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 swallowed:** Rinse mouth. Do NOT induce vomiting (P301+P330+P331).

### SECTION 5 — FIRE FIGHTING MEASURES

Class II combustible liquid.

Flash point: 50 °C Flammable limits: Lower: 18% Upper: 57% Autoignition Temperature: 601 °C

When heated to decomposition, may emit toxic fumes.

**In case of fire:** Use 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 the spill with sand or other inert absorbent material, neutralize with sodium bicarbonate or calcium hydroxide, and deposit in a sealed bag or container. See Sections 8 and 13 for further information.

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**SECTION 7 — HANDLING AND STORAGE**

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Flinn Suggested Chemical Storage Pattern: Organic #1. Store with acids, anhydrides, and peracids. Keep cool (P235). Keep container tightly closed (P233). Store in a dedicated acid cabinet and away from any source of water; if an acid cabinet is not available, store in a Flinn Saf-Cube™. Avoid prolonged storage (see Section 10). Use only in a hood or in a well-ventilated area (P271).

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**SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION**

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Wear protective gloves, protective clothing, and eye protection (P280). Wash thoroughly after handling (P264). Use only in a hood or in a well-ventilated area (P271).

Exposure guidelines: PEL/TLV 5 ppm, Ceiling 10 ppm (OSHA, ACGIH)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Clear, colorless, fuming liquid. Penetrating odor.

Soluble: Water, alcohol, and ether

Boiling point: 101 °C

Melting point: 8.3 °C

Refractive index: 1.3714

Specific gravity: 1.22

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**SECTION 10 — STABILITY AND REACTIVITY**

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Avoid contact with strong oxidizers, strong bases, and finely powdered metals.

Shelf life: Poor. Avoid extended storage. Upon aging, decomposes to carbon monoxide and water thus creating potential explosive danger in a tightly sealed bottle. Explosions have occurred.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Irritating to eyes, skin, and respiratory tract, blisters.

Chronic effects: Skin irritation.

Target organs: Eyes, skin, respiratory tract.

ORL-RAT LD<sub>50</sub>: 1100 mg/kg

IHL-RAT LC<sub>50</sub>: 15 g/m<sup>3</sup>/15m

SKN-RBT LD<sub>50</sub>: N.A.

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

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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

Flinn Suggested Disposal Method #24a is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Formic acid. Hazard class: 8, Corrosive. UN number: UN1779.

N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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TSCA-listed, EINECS-listed (200-579-1), RCRA code U123.

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**SECTION 16 — OTHER INFORMATION**

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