

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 6.00

Revision Date: April 28, 2011

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Acetic Anhydride

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

Acetic Anhydride

Synonyms: Acetic oxide, Acetyl ether

CAS#: 108-24-7

### SECTION 3 — HAZARDS IDENTIFICATION

Colorless liquid. Pungent vinegar-like odor.

Corrosive, a lachrymator, and moderately toxic by ingestion and inhalation. Slightly toxic by skin absorption. Avoid contact with skin, eyes, and mucous membranes. Avoid breathing vapor.

Class II Combustible liquid.

#### FLINN AT-A-GLANCE

Health-2

Flammability-2

Reactivity-2

Exposure-3

Storage-3

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: Do NOT induce vomiting. Rinse mouth. Give large quantities of water for dilution. May also give gastric antacids such as milk of magnesia. Call a physician or poison control at once.

### SECTION 5 — FIRE FIGHTING MEASURES

Class II combustible liquid.

Flash point: 49 °C (CC) Flammable limits: Lower: 2.7% Upper: 10.3% Autoignition Temperature: 316 °C

**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-1

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from the area. 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.

### SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #1. Store with acids, anhydrides, and peracids. Store away from nitric acid.

Store away from any source of water. Should store in a dedicated acid cabinet or Flinn Saf-Cube.

Use and dispense in a hood. Moisture sensitive material.

### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant 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).

Exposure guidelines: PEL 5 ppm (OSHA)

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

Clear, colorless liquid with a pungent vinegar-like odor.  
Solubility: Slowly soluble in water. Reacts with water, exothermic  
Formula: (CH<sub>3</sub>CO)<sub>2</sub>O  
Formula weight: 102.09  
Vapor density: 3.52 **Heavier than air**

Boiling point: 140 °C  
Evaporation rate: 0.46  
Melting point: -73 °C  
Specific gravity: 1.08  
Vapor pressure: 4 mmHg

**SECTION 10 — STABILITY AND REACTIVITY**

Avoid contact with water, mineral acids, oxidizers, and alkalis. Reacts violently (sometimes delayed) with water.  
Shelf life: Good, if stored properly.

**SECTION 11 — TOXICOLOGICAL INFORMATION**

Acute effects: Corrosive, lachrymator.  
Chronic effects: N.A.  
Target organs: Respiratory system, eyes and skin.

ORL-RAT LD<sub>50</sub>: 1780 mg/kg  
IHL-RAT LC<sub>50</sub>: 1000 ppm/4 hour  
SKN-RBT LD<sub>50</sub>: 4 g/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 #24a is one option.

**SECTION 14 — TRANSPORT INFORMATION**

Shipping name: Acetic Anhydride  
Hazard class: 8, Corrosive, Flammable Liquid  
UN number: UN1715  
N/A = Not applicable

**SECTION 15 — REGULATORY INFORMATION**

TSCA-listed, EINECS-listed (203-564-8). RCRA code D001, D002

**SECTION 16 — OTHER INFORMATION**

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