

## Acetic Anhydride Safety Data Sheet (SDS)

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Acetic Anhydride

Signal Word  
**DANGER**

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261  
Chemtrec Emergency Phone Number: (800) 424-9342

Pictograms

### SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Flammable liquids (Category 3). Flammable liquid and vapor (H226). Keep away from heat, sparks, open flames, and hot surfaces. No smoking (P210).



Hazard class: Acute toxicity, oral (Category 4). Harmful if swallowed (H302). 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: Acute toxicity, inhalation (Category 4). Harmful if inhaled (H332). Avoid breathing mist, vapors or spray (P261).

### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Acetic anhydride	108-24-7	(CH <sub>3</sub> CO) <sub>2</sub> O	102.09	
Synonyms: Acetic oxide, Acetyl ether				

### 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 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 swallowed:** Rinse mouth. Do NOT induce vomiting (P301+P330+P331). Call a POISON CENTER or physician if you feel unwell (P301+P312).

### SECTION 5 — FIRE FIGHTING MEASURES

Class II combustible liquid.

NFPA Code

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

H-3

Temperature: 316 °C

F-2

When heated to decomposition, may emit toxic fumes.

R-1

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

---

**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.

---

**SECTION 7 — HANDLING AND STORAGE**

---

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

Keep dry. Reacts violently with water. Should store in a dedicated acid cabinet or Flinn Saf-Cube™.

Keep cool (P235). Keep container tightly closed (P233). Use only in a hood or in a well ventilated area.

---

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

---

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

Exposure guidelines: TLV 1 ppm Ceiling 3 ppm (ACGIH) PEL 5 ppm (OSHA)

---

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

---

Appearance: Clear, colorless liquid.	Boiling point: 140 °C
Odor: Pungent vinegar-like odor. Odor Threshold: 0.13 uL/L	Evaporation rate: 0.46
Soluble: Slowly in water. Reacts with water, exothermic. See Sections 7 and 10. Viscosity: 0.843 mPa-s @ 25 °C	Melting point: -73 °C
Vapor Pressure: 0.680 kPa (5.1 mm Hg) @ 25 °C	Specific gravity: 1.08
	Vapor density: 3.52
	Heavier than air

---

**SECTION 10 — STABILITY AND REACTIVITY**

---

Avoid contact with water, mineral acids, oxidizers, and alkalis. Reacts violently (sometimes delayed) with water. Forms ethyl acetate in solution with alcohol.

Shelf life: Good, if stored properly.

---

**SECTION 11 — TOXICOLOGICAL INFORMATION**

---

Exposure routes: inhalation, ingestion, skin and/or eye contact	ORL-RAT LD <sub>50</sub> : 1780 mg/kg
Acute effects: Corrosive to all body tissues, pulmonary edema.	IHL-RAT LC <sub>50</sub> : 1000 ppm/4 hour
Chronic effects: Pulmonary edema, blindness.	SKN-RBT LD <sub>50</sub> : 4 mL/kg
Target organs: Respiratory system, eyes and skin.	

---

**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

---

**SECTION 15 — REGULATORY INFORMATION**

---

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

---

**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).

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.**

**Revision Date:** July 13, 2015

---