

Safety Data Sheet

Acetic Anhydride

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Acetic Anhydride
Recommended Use: Science education applications
Synonyms: Ethanoic Anhydride
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



Flammable liquid and vapor. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Toxic if inhaled. Harmful to aquatic life.

GHS Classification:

Skin Corrosion/Irritation Category 1B, Serious Eye Damage/Eye Irritation Category 1, Flammable Liquid Category 3, Acute Toxicity - Inhalation Dust / Mist Category 3, Hazardous to the aquatic environment - Acute Category 3, Acute Toxicity - Oral Category 4, Acute Toxicity - Dermal Category 5

Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u> | <u>CAS #</u> | <u>%</u> |
|----------------------|--------------|----------|
| Acetic Anhydride | 108-24-7 | 100 |

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Section 5 Firefighting Procedures

Extinguishing Media: Use dry chemical, CO2 or appropriate foam.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Vapors may travel back to ignition source. Closed Containers exposed to heat may explode.
Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

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Section 6

Spill or Leak Procedures

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Do not flush spill to drain.

Section 7

Handling and Storage

Handling: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Avoid excess heat. Keep container tightly closed in a cool, well-ventilated place.

Storage: Store locked up. Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

Section 8

Protection Information

| <u>Chemical Name</u> | <u>ACGIH</u> | | <u>OSHA PEL</u> | |
|----------------------|--------------|---------------|-------------------------------------|---------------|
| | <u>(TWA)</u> | <u>(STEL)</u> | <u>(TWA)</u> | <u>(STEL)</u> |
| Acetic Anhydride | 1 ppm TWA | 3 ppm STEL | 5 ppm TWA; 20 mg/m ³ TWA | N/A |

Control Parameters

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Wear chemical splash goggles when handling this product. Have an eye wash station available.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Butyl rubber

Section 9

Physical Data

| | |
|--|---|
| Formula: CH ₃ CO*O*COCH ₃ | Vapor Pressure: 4 hPa at 20 °C |
| Molecular Weight: 102.09 | Evaporation Rate (BuAc=1): 0.46 |
| Appearance: Colorless Liquid | Vapor Density (Air=1): 3.5 |
| Odor: Strong Vinegar | Specific Gravity: 1.082 |
| Odor Threshold: No data available | Solubility in Water: Soluble |
| pH: No data available | Log Pow (calculated): -0.27 |
| Melting Point: No data available | Autoignition Temperature: No data available |
| Boiling Point: 138 - 140 C | Decomposition Temperature: No data available |
| Flash Point: 49 C | Viscosity: No data available |
| Flammable Limits in Air: LEL 2.9% UEL 10.3% | Percent Volatile by Volume: N/A |

Section 10

Reactivity Data

Reactivity: No data available

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Temperatures above flash point in combination with sparks, open flames, or other sources of ignition.

Incompatible Materials: Acids, Alcohols, Caustics (bases), Metals (powdered), Strong reducing agents

Hazardous Polymerization: Will not occur

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Section 11

Toxicity Data

Routes of Entry No information available, Inhalation, ingestion, eye or skin contact.
Symptoms (Acute): Respiratory disorders
Delayed Effects: No data available

Acute Toxicity:

| Chemical Name | CAS Number | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------|------------|-----------------------------|-------------------------------|------------------------------------|
| Acetic Anhydride | 108-24-7 | Oral LD50 Rat 1780 mg/kg | Dermal LD50 Rabbit 4 ml/kg | INHALATION LC50 Rat 1000 ppm |

Carcinogenicity:

| Chemical Name | CAS Number | IARC | NTP | OSHA |
|-------------------|------------|------------|------------|------------|
| No data available | 108-24-7 | Not listed | Not listed | Not listed |

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: None Known

Section 12

Ecological Data

Overview: This material is not expected to be harmful to the ecology.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

| Chemical Name | CAS Number | Eco Toxicity |
|------------------|------------|--|
| Acetic Anhydride | 108-24-7 | 48 HR LC50 LEUCISCUS IDUS 265 MG/L 24 HR EC50 DAPHNIA MAGNA 55 MG/L |

Section 13

Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): D001

Section 14

Transport Information

| Ground - DOT Proper Shipping Name: | Air - IATA Proper Shipping Name: |
|--|---|
| UN number: 1715 Class: 8 (3) Packing group: II Proper shipping name: Acetic anhydride Reportable Quantity (RQ): 5000 lbs Marine pollutant: No Poison Inhalation Hazard: No | UN number: 1715 Class: 8 (3) Packing group: II Proper shipping name: Acetic anhydride |

Section 15

Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

| Chemical Name | CAS Number | § 313 Name | § 304 RQ | CERCLA RQ | § 302 TPQ | CAA 112(2) TQ |
|------------------|------------|------------|------------|------------------------------------|-----------|---------------|
| Acetic Anhydride | 108-24-7 | No | 5000 lb RQ | 5000 lb final RQ; 2270 kg final RQ | No | No |

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Section 16

Additional Information

Revised: 09/09/2015

Replaces: 09/03/2014

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

| | | | |
|--------|---|------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists | NTP | National Toxicology Program |
| CAS | Chemical Abstract Service Number | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act | PEL | Permissible Exposure Limit |
| DOT | U.S. Department of Transportation | ppm | Parts per million |
| IARC | International Agency for Research on Cancer | RCRA | Resource Conservation and Recovery Act |
| N/A | Not Available | SARA | Superfund Amendments and Reauthorization Act |
| | | TLV | Threshold Limit Value |
| | | TSCA | Toxic Substances Control Act |
| | | IDLH | Immediately dangerous to life and health |