



MATERIAL SAFETY DATA SHEET

2522 Plantation Center Drive
Matthews, NC 28105
(704) 845 9440
www.ciscochem.com

1. PRODUCT NAME: ACETIC ANHYDRIDE
2. CHEMICAL NAME:
3. SYNONYMS:
4. CAS NUMBER: 108-24-7
5. COMPOSITION: ACETIC ANHYDRIDE (108-24-7) -98%

IN CASE OF
TRANSPORT EMERGENCY
CONTACT CHEMTREC
USA: 1-800-424-9300
INTERNATIONAL: 1-703-527-3887

6. PROPERTIES: PHYSICAL STATE: Liquid
COLOR: Colorless
ODOR: Pungent Acrid
MOLECULAR WEIGHT: 102.09 AMU
PH: N/A
BP/BP Range: 139 – 140 C – 760 mmHg
MP/MP Range: -73 c
FREEZING POINT: N/A
VAPOR PRESSURE: 4 mmHg – 20 c
VAPOR DENSITY: 3.5 g/l
SATURATED VAPOR CRONC. : N/A
SG/DENSITY: 1.08 g/cm 3
BULK DENSITY: N/A
ODOR THRESHOLD: N/A
VOLATILE %: N/A
VOC CONTENT: N/A
WATER CONENT: N/A
SOLVENT CONTENT: N/A
EVAPORATION RATE: N/A
VISCOSITY: 0.91 Pas – 20 c
PARTITION COEFFICIENT: N/A
DECOMPOSITION TEMP: 136 c
FLASH POINT F: 120.2 F
FLASH POINT C: 49 c
EXPLOSION LIMITS: lower: 2.7% - Upper: 10.3%
FLAMMABILITY LIMITS: N/A
AUTOIGNITION TEMP: 332 c
REFRACTIVE INDEX: 1.39
SOLUBILITY: N/A
STABILITY: Stable
CONDITIONS TO AVOID: Do not allow water to enter container because of violent reaction
MATERIALS TO AVOID: Acids, Bases, Reducing agents, Finely powered metals.
HAZADOUS DECOMPOSITION PRODUCTS: Carbon monoxide, Carbon dioxide
HAZARDOUS POLYMERIZATION: Will not occur

7. HAZARDS: EMERGENCY OVERVIEW: Combustible (USA) Flammable (EU). Corrosive. Reacts violently with water. Harmful by inhalation and if swallowed. Causes burns. Lachrymator.
HMIS RATING: Health – 3, Flammability – 2, Reactivity – 2
NFPA RATINGS: Health – 3, Flammability – 2, Reactivity – 2
(Special Hazards: Water Reactive)



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8. FIRE FIGHTING FLASH POINT: 120.2 F/49 C
INFORMATION: EXPLOSION LIMITS: Lower: 2.7%, Upper: 10.3%
AUTOIGNITION TEMP: 332 c
EXTINGUISHING MEDIA: SUITABLE: carbon dioxide, dry chemical powder, or appropriate foam.
UNSUITABLE: Do not use water.
FIRE-FIGHTING: PROTECTIVE EQUIPMENT: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
SPECIFIC HAZARDS: Combustible liquid. Emits toxic fumes under fire conditions.
9. PERSONAL ENGINEERING CONTROLS: Safety shower and eye bath. Use only in a chemical fume hood.
PROTECTION PERSONAL PROTECTIVE EQUIPMENT
MEASURES: RESPIRATORY: NIOSH/MSHA-approved respirator
HAND: Compatible chemical-resistant gloves
EYE: Chemical safety goggles
OTHER: Faceshield (8-inch minimum).
GENERAL HYGIENE MEASURES: Wash contaminated clothing reuse. Discard contaminated shoes.
Wash thoroughly after handling
10. FIRST AID ORAL EXPOSURE: If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. Do not induce vomiting.
PROCEDURES: INHALATION EXPOSURE: If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.
DERMAL EXPOSURE: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.
EYE EXPOSURE: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call physician.
11. EXPOSURE USA – ACGIH – TWA – 5PPM
LIMITS: USA – MSHA standard-air – Ceiling Concentration – 5 PPM (20 MG/M3)
USA – OSHA – PEL – 8H TWA 5 PPM (20 MG/M3)
USA – NIOSH – Ceiling Concentration – 5 PPM
12. TOXICOLOGICAL ROUTE OF EXPOSURE
INFORMATION: SKIN CONTACT: Causes burns
SKIN ABSORPTION: May be harmful if absorbed through skin
EYE CONTACT: Causes burns. Lachrymator.
INHALATION: Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
INGESTION: Harmful if swallowed
SIGNS AND SYMPTOMS OF EXPOSURE: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.
TOXICITY DATA
ORAL – Rat: 1,780 mg/kg (LD50)
INHALATION –!
Rat: 1
,000 ppm (LC50)
SKIN – Rabbit: 4 ml/kg (LD50)
IRRITATION DATA



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SKIN – Rabbit
Remarks: Mild irritation effect
EYES – Rabbit
Remarks: severe irritation effect
SKIN – Rabbit: 540 mg
Remarks: Open irritation test
ACUTE ECOTOXICITY TESTS
TEST TYPE: LC50 Fish
SPECIES: Other Fish
TIME: 48.0 h
VALUE: 265-279 mg/l
TEST TYPE
EC50 Daphnia
SPECIES: Daphnia
TIME: 96.0 h
VALUE: 55mg/l

13. ECOLOGICAL INFORMATION: NE

14. DISPOSAL CONSIDERATIONS: Contact a licensed professional waste disposal service to dispose of this material. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

15. CARCINOGENIC PROPERTIES & NOTIFICATIONS: NE

16. TRANSPORT INFORMATION: DOT
PROPER SHIPPING NAME: Acetic anhydride
UN#: 1715
CLASS: 8
PACKING GROUP: Packing group II
HAZARD LABEL: Corrosive
FLAMMABLE LIQUID: Flammable liquid
PIH: Not PIH
IATA
PROPER SHIPPING NAME: Acetic anhydride
IATA Number: 1715
HAZARD CLASS: 8
PACKING GROUP: II
EU DIRECTIVES CLASSIFICATION
SYMBOL OF DAMAGE: C
INDICATION OF DANGER: Corrosive
RISK STATEMENTS: Flammable. Harmful by inhalation and swallowed. Causes burns, R: 10 20/22 34
SAFETY STATEMENTS: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S: 26 36/37/39 45
US CLASSIFICATION AND LABEL TEXT
INDICATION OF DANGER: Combustible (USA) Flammable (EU) Corrosive
RISK STATEMENTS: Reacts violently with water. Causes burns. Harmful by inhalation and if swal-



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SAFETY STATEMENTS: Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

US STATEMENTS

Lachrymator

UNITED STATES REGULATORY INFORMATION

SARA LISTED: no

TSCA INVENTORY ITEM: yes

17. HANDLING & HANDLING

STORAGE: **USER EXPOSURE:** Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

SUITABLE: Keep tightly closed. Store in a cool dry place

SPECIAL REQUIREMENTS: Reacts violently with water

18. ACCIDENTAL PROSEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL: Evacuate area

RELEASE PROCEDURES OF PERSONAL PRECAUTIONS: Wear self-contained breathing apparatus, rubber

MEASURES: boots, and heavy rubber gloves

METHODS FOR CLEANING: Cover with an activated carbon absorbent, take up and place in closed containers. Transport outdoors. Ventilate area and wash spill site after material pickup is complete.



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