



## Material Safety Data Sheet

### Acetic anhydride

#### Section 1 - Chemical Product and Company Identification

MSDS Name: Acetic anhydride

Catalog 14949-0000, 14949-0010, 14949-0025, 14949-0250, 22213-0000, 22213-0010, 22213-0025,  
Numbers: 22213-5000, 42323-0000, 42323-0010, 42323-0050, 42323-5000

Synonyms: Acetyl oxide

Company Identification:

Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

Company Identification: (USA)

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call:

800-ACROS-01

For information in Europe, call:

+32 14 57 52 11

Emergency Number, Europe:

+32 14 57 52 99

Emergency Number US:

201-796-7100

CHEMTREC Phone Number, US:

800-424-9300

CHEMTREC Phone Number, Europe:

703-527-3887

#### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
108-24-7	Acetic anhydride	>97%	203-564-8

Hazard Symbols:

C



Risk Phrases:

10 20/22 34

#### Section 3 - Hazards Identification

##### EMERGENCY OVERVIEW

Flammable. Harmful by inhalation and if swallowed. Causes burns.

##### Potential Health Effects

Eye: Causes eye burns. Lachrymator (substance which increases the flow of tears).

Skin: Causes skin burns.

Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns.

Inhalation: Harmful if inhaled. Causes chemical burns to the respiratory tract.

Chronic:

#### Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Will burn if involved in a fire. Flammable liquid and vapor.

Extinguishing Media: Use foam, dry chemical, or carbon dioxide.

### Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

### Section 7 - Handling and Storage

Handling: Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only in a chemical fume hood.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area. Corrosives area.

### Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

CAS# 108-24-7:

United Kingdom, WEL - TWA: 0.5 ppm TWA; 2.5 mg/m<sup>3</sup> TWA United Kingdom, WEL - STEL: 2 ppm STEL; 10 mg/m<sup>3</sup> STEL

United States OSHA: 5 ppm TWA; 20 mg/m<sup>3</sup> TWA

Belgium - TWA: 5 ppm VLE; 21 mg/m<sup>3</sup> VLE

France - VLE: 5 ppm VLE; 20 mg/m<sup>3</sup> VLE

Germany: 5 ppm TWA; 21 mg/m<sup>3</sup> TWA

Japan: 5 ppm Ceiling; 21 mg/m<sup>3</sup> Ceiling

Malaysia: 5 ppm TWA; 21 mg/m<sup>3</sup> TWA

Spain: 5 ppm VLA-ED; 21 mg/m<sup>3</sup> VLA-ED

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color: colorless

Odor: acetic odor - pungent odor

pH: 3 (10 g/l aq.sol (20°C))

Vapor Pressure: 5mbar @20 deg C

Viscosity: 0.91 mPa.s @20 deg C

Boiling Point: 140 deg C @760mmHg ( 284.00°F)

Freezing/Melting Point: -73.1 deg C ( -99.58°F)

Autoignition Temperature: 316 deg C ( 600.80 deg F)

Flash Point: 54 deg C ( 129.20 deg F)

Explosion Limits: Lower: 2 Vol %

Explosion Limits: Upper: 12 Vol %

Decomposition Temperature: Not available

Solubility in water: Reacts

Specific Gravity/Density: 1.087

Molecular Formula: C4H6O3

Molecular Weight: 102.09

#### Section 10 - Stability and Reactivity

Chemical Stability: Moisture sensitive.

Conditions to Avoid: Incompatible materials, ignition sources, exposure to moist air or water.

Incompatibilities with Other Materials: Metals, strong oxidizing agents, reducing agents, bases, alcohols, amines, ammonia, nitrates, nitric acid, permanganates, phenols, sodium hydroxide, hydrogen peroxide, chromium trioxide, potassium hydroxide, perchloric acid, ethanol.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

#### Section 11 - Toxicological Information

RTECS#: CAS# 108-24-7: AK1925000

RTECS:

**CAS# 108-24-7:** Inhalation, rat: LC50 = 1000 ppm/4H;

LD50/LC50: Oral, rat: LD50 = 1780 mg/kg;

Skin, rabbit: LD50 = 4 mL/kg;

Other: Oral, rat: LD50 = 630 mg/kg

Carcinogenicity: Acetic anhydride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information. Mutagenicity: Ames-test: negative.

#### Section 12 - Ecological Information

Ecotoxicity: Fish: Leuciscus idus: LC50 = 265 mg/l; 48H; DIN38412

Daphnia: Daphnia: EC50 = 55 mg/l; 24H; DIN38412

Other: Do not empty into drains. Readily biodegradable.

log Pow = -0.2 Biodegradation: >95% (OECD 302B)

#### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

#### Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	ACETIC ANHYDRIDE	ACETIC ANHYDRIDE	ACETIC ANHYDRIDE
Hazard Class:	8 (3)	8 (3)	8 (3)
UN Number:	1715	1715	1715
Packing Group:	II	II	II

USA RQ: CAS# 108-24-7: 5000 lb final RQ; 2270 kg final RQ

#### Section 15 - Regulatory Information

##### European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 10 Flammable.

R 20/22 Harmful by inhalation and if swallowed.

R 34 Causes burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 108-24-7: 1

Canada

CAS# 108-24-7 is listed on Canada's DSL List

US Federal

TSCA

CAS# 108-24-7 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 9/23/1996

Revision #2 Date 2/06/2008

Revisions were made in Sections: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,

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