

Material Safety Data Sheet

(Acetic anhydride)-d6, 98.5 atom % D

ACC# 28673

Section 1 - Chemical Product and Company Identification

MSDS Name: (Acetic anhydride)-d6, 98.5 atom % D

Catalog Numbers: AC174670000, AC174670050

Synonyms: None.

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
16649-49-3	(Acetic anhydride)-d6,	98.5	240-697-0

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 52 deg C.

Danger! Causes eye and skin burns. Causes digestive and respiratory tract burns. **Flammable liquid and vapor.** Moisture sensitive.

Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

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

Skin: Contact with liquid is corrosive and causes severe burns and ulceration.

Ingestion: Causes gastrointestinal tract burns.

Inhalation: Causes chemical burns to the respiratory tract. May be harmful if inhaled.

Chronic: No information found.

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. Do NOT allow victim to rub eyes or keep eyes closed.

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. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. 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. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Use water spray to keep fire-exposed containers cool. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water spray to cool fire-exposed containers.

Flash Point: 52 deg C (125.60 deg F)

Autoignition Temperature: 332 deg C (629.60 deg F)

Explosion Limits, Lower:2.9%

Upper: 10.3%

NFPA Rating: (estimated) Health: 3; Flammability: 2; Instability: 1

Section 6 - Accidental Release Measures

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

Spills/Leaks: Use water spray to dilute spill to a non-flammable mixture. Avoid runoff into storm sewers and ditches which lead to waterways. Use water spray to disperse the gas/vapor. Remove all sources of ignition. Spill may be carefully neutralized with lime (calcium oxide, CaO). Cover with material such as dry soda ash or calcium carbonate and place into a closed container for disposal. Do not get water inside containers.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Do not allow water to get into the container because of violent reaction. Ground and bond containers when transferring material. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Do not store in direct sunlight. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Store protected from moisture.

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 explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
(Acetic anhydride)-d6,	none listed	none listed	none listed
Acetic anhydride	5 ppm TWA	200 ppm IDLH	5 ppm TWA; 20 mg/m3 TWA

OSHA Vacated PELs: (Acetic anhydride)-d6,: No OSHA Vacated PELs are listed for this chemical. Acetic anhydride: No OSHA Vacated PELs are listed for this chemical.

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: Liquid

Appearance: clear, colorless

Odor: pungent, acetic odor

pH: Not available.

Vapor Pressure: 4 mm Hg @ 20 deg C

Vapor Density: Not available.

Evaporation Rate:Not available.

Viscosity: Not available.

Boiling Point: 139 deg C

Freezing/Melting Point:-74 deg C

Decomposition Temperature:Not available.

Solubility: Decomposes.

Specific Gravity/Density:1.14

Molecular Formula:C4D6O3

Molecular Weight:108.14

Section 10 - Stability and Reactivity

Chemical Stability: Stable. However, may decompose if exposed to moist air or water. Substance is readily hydrolyzed. Reacts with water to form corresponding acid.

Conditions to Avoid: Light, ignition sources, contact with water.

Incompatibilities with Other Materials: Acetic acid + water, ammonium nitrate + hexamethylenetetraminium acetate + nitric acid, barium peroxide, boric acid, bromohydroxybiphenyl + pyridine + water, N-tert-butylphthalamic acid + tetrafluoroboric acid, chromic acid, chromium trioxide, 1,3-diphenyltriazine, ethanol + sodium hydrogen sulfate, glycerol + phosphoryl chloride, hydrochloric acid + water, hydrogen peroxide, hypochlorous acid, metal nitrates, nitric acid, perchloric acid + water, peroxyacetic acid, polyphosphoric acid + water, potassium permanganate, sodium percarbonate, tetrafluoroboric acid, 4-toluenesulfonic acid + water, water,

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 16649-49-3 unlisted.

CAS# 108-24-7: AK1925000

LD50/LC50:

Not available.

CAS# 108-24-7:

Inhalation, rat: LC50 = 1000 ppm/4H;

Oral, rat: LD50 = 1780 mg/kg;

Skin, rabbit: LD50 = 4 mL/kg;

Carcinogenicity:

CAS# 16649-49-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 108-24-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.**Teratogenicity:** No data available.**Reproductive Effects:** No data available.**Mutagenicity:** No data available.**Neurotoxicity:** No data available.**Other Studies:****Section 12 - Ecological Information**

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.**RCRA U-Series:** None listed.**Section 14 - Transport Information**

	US DOT	Canada TDG
Shipping Name:	DOT regulated - small quantity provisions apply (see 49CFR173.4)	Acetic Anhydride
Hazard Class:		8(3)
UN Number:		UN1715
Packing Group:		II

Section 15 - Regulatory Information**US FEDERAL****TSCA**

CAS# 16649-49-3 is not listed on the TSCA inventory. It is for research and development use only.

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

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

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

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 108-24-7: immediate, delayed, fire, reactive.

Section 313 No chemicals are reportable under Section 313.**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

CAS# 108-24-7 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 16649-49-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 108-24-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

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# 16649-49-3: No information available.
CAS# 108-24-7: 1

Canada - DSL/NDSL

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

Canada - WHMIS

This product has a WHMIS classification of B3, E.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 108-24-7 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 10/31/1997

Revision #5 Date: 2/24/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.