



Material Safety Data Sheet

2,2'-Azobis(2-methylpropionamidine) dihydrochloride, 98%

MSDS# 99348

Section 1 - Chemical Product and Company Identification

MSDS Name: 2,2'-Azobis(2-methylpropionamidine) dihydrochloride, 98%

Catalog Numbers: AC401560000, AC401560250, AC401560500

Synonyms: 2,2'-Azobis(isobutyramidine) dihydrochloride; AAPH; 2,2'-Azobis(2-amidinopropane) dihydrochloride.

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#: 2997-92-4
Chemical Name: 2,2'-Azobis(2-methylpropionamidine)dihydrochloride
%: 98
EINECS#: 221-070-0

Hazard Symbols: XN



Risk Phrases: 22 43 5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! May cause allergic skin reaction. Harmful if swallowed. May be harmful if inhaled. Self-reactive substance. Heating may cause an explosion. May cause eye, skin, and respiratory tract irritation. Target Organs: Skin.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation. May cause an allergic reaction in certain individuals.

Ingestion: Harmful if swallowed. May cause nausea, vomiting, abdominal pain, and increased salivation.

Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.

Chronic: No information found.

Section 4 - First Aid Measures

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

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

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

Notes to Physician:

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. This material may become self-reactive and possibly explosive.

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

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Not available

Lower:

Explosion Limits: Not available

Upper:

NFPA Rating: health: 2; flammability: 0; instability: 3;

Section 6 - Accidental Release Measures

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

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation. Use only non-sparking tools and equipment.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Use spark-proof tools and explosion proof equipment. Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, and clothing. Take precautionary measures against static discharges. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation.

Storage: Keep away from sources of ignition. Store in a tightly closed container. Keep refrigerated. (Store below 4°C/39°F.)

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2,2'-Azobis(2-methylpropionamidine)dihydrochloride	none listed	none listed	none listed

OSHA Vacated PELs: 2,2'-Azobis(2-methylpropionamidine)dihydrochloride: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

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: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Granules

Color: white to off-white

Odor: none reported

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 160-169 deg C (dec)

Decomposition Temperature:

Solubility in water: soluble

Specific Gravity/Density: 0.4200 g/cm³

Molecular Formula: C₈H₂₀Cl₂N₆

Molecular Weight: 271.19

Section 10 - Stability and Reactivity

Chemical Stability: Thermally unstable.

Conditions to Avoid: Dust generation, excess heat, temperatures above 40°C.

Incompatibilities with Other Materials: Strong oxidizing agents, strong acids.

Hazardous Decomposition Products: Hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide, ammonia.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 2997-92-4: UE4575500

RTECS:

CAS# 2997-92-4: Draize test, rabbit, skin: 500 mg Mild;

LD50/LC50: Oral, rat: LD50 = 410 mg/kg;
Skin, rat: LD50 = >5900 mg/kg;

Carcinogenicity: 2,2'-Azobis(2-methylpropionamidine)dihydrochloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

US DOT

Shipping Name: SELF-HEATING SOLID, ORGANIC, N.O.S.

Hazard Class: 4.2

UN Number: UN3088

Packing Group: III

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 22 Harmful if swallowed.

R 43 May cause sensitization by skin contact.

R 5 Heating may cause an explosion.

Safety Phrases:

S 24 Avoid contact with skin.

S 37 Wear suitable gloves.

WGK (Water Danger/Protection)

CAS# 2997-92-4: 2

Canada

CAS# 2997-92-4 is listed on Canada's DSL List

Canadian WHMIS Classifications: D1B, F

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.

CAS# 2997-92-4 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 2997-92-4 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #9 Date 7/20/2009

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 the company 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 the company has been advised of the possibility of such damages.
