

## 2,2'-Azobis(2-methylpropionamide) dihydrochloride 2997-92-4 MSDS

### Section 1 - Chemical Product

MSDS Name: 2,2'-Azobis(2-methylpropionamide) dihydrochloride 98% (Titr. Dry Material Safety Data Sheet)

Synonym: 2,2'-Azobis(isobutyramide) dihydrochloride

### Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content
2997-92-4	2,2'-Azobis(2-methylpropionamide) dihydrochloride	98

Hazard Symbols: XN

Risk Phrases: 22 43

### Section 3 - HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Harmful if swallowed. May cause sensitization by skin contact.

Potential Health Effects

Eye:

May cause eye irritation. May cause lacrimation (tearing), blurred vision, and photophobia.

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. Olfactory fatigue may occur.

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Dust can be an explosion hazard when exposed to heat or flame.

Extinguishing Media:

Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

## **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.

Provide ventilation.

## **Section 7 - HANDLING and STORAGE**

Handling:

Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation.

Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep refrigerated. (Store below 4°C/39°F.)

## **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 ventilation to keep airborne concentrations low.

Exposure Limits CAS# 2997-92-4: Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

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: Crystalline powder

Color: white to off-white  
Odor: none reported  
pH: Not available.  
Vapor Pressure: Not available.  
Viscosity: Not available.  
Boiling Point: Not available.  
Freezing/Melting Point: Not available.  
Autoignition Temperature: Not applicable.  
Flash Point: Not applicable.  
Explosion Limits, lower: Not available.  
Explosion Limits, upper: Not available.  
Decomposition Temperature: >130 deg C  
Solubility in water: soluble  
Specific Gravity/Density: .4200g/cm<sup>3</sup>  
Molecular Formula: C<sub>8</sub>H<sub>20</sub>Cl<sub>2</sub>N<sub>6</sub>  
Molecular Weight: 271.19

## **Section 10 - STABILITY AND REACTIVITY**

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Dust generation, excess heat, temperatures above 100°C.

Incompatibilities with Other Materials:

Strong oxidizing agents.

Hazardous Decomposition Products:

Hydrogen chloride, nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

## **Section 11 - TOXICOLOGICAL INFORMATION**

RTECS#:

CAS# 2997-92-4: UE4575500 LD50/LC50:

CAS# 2997-92-4: Draize test, rabbit, skin: 500 mg Mild; Oral, rat: LD50 = 410 mg/kg; Skin, rat: LD50 = >5900 mg/kg.

Carcinogenicity:

2,2'-Azobis(2-methylpropionamidine)dihydrochloride - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

## **Section 12 - ECOLOGICAL INFORMATION**

## **Section 13 - DISPOSAL CONSIDERATIONS**

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

## **Section 14 - TRANSPORT INFORMATION**

IATA

Shipping Name: SELF-REACTIVE SOLID TYPE D \*

Hazard Class: 4.1

UN Number: 3226

Packing Group: II

IMO

Shipping Name: SELF-REACTIVE SOLID TYPE D

Hazard Class: 4.1

UN Number: 3226

Packing Group: II

RID/ADR

Shipping Name: SELF-REACTIVE SOLID, TYPE D

Hazard Class: 4.1

UN Number: 3226

Packing group: II

## **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.

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.

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 - ADDITIONAL INFORMATION**

N/A