MATERIAL SAFETY DATA SHEET
AAPH

Cayman Chemical Company
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108

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1. Product and Company Identification

Product Code: 82235
Product Name: AAPH
Reference #: 82235
Manufacturer Information
Company Name: Cayman Chemical Company
Emergency Contact: Cayman Chemical Company (800)364-9897
Information: Cayman Chemical Company (734)971-3335
Chemical Family: Prostaglandin
CAS Number: 2997-92-4
Synonyms: 2,2'-azobis-2-methyl-propanimidamide, dihydrochloride

2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	OSHA PEL	ACGIH TLV	Other Limits
1. AAPH	2997-92-4	100.0 %	No data.	No data.	No data.

3. Hazards Identification

Emergency Overview: No data available.
Route(s) of Entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection
Potential Health Effects (Acute and Chronic): Harmful if inhaled.
Harmful if swallowed.
Irritating and highly toxic gas may be generated by thermal decomposition or combustion.
Material may be irritating to the mucous membranes and upper respiratory tract.
May cause eye, skin, or respiratory system irritation.
The toxicological properties of this compound have not been fully evaluated.
Signs and Symptoms Of Exposure: Irritating to the skin, eyes, nose, throat, and respiratory tract.

4. First Aid Measures

Emergency and First Aid Procedures: If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.
In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

5. Fire Fighting Measures

Flash Pt: No data. Method Used: See note below
Explosive Limits: LEL: No data. UEL: No data.
Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
Flammable Properties and Hazards: Emits toxic, irritating dust, or smoke under fire conditions.
Heat may decompose material and rupture containers.
Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.

Unsuitable Extinguishing Media: No data available.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled: Vacuum or sweep up material and place in disposal container.
Avoid raising dust.
After removal, ventilate contaminated area and flush thoroughly with water.

7. Handling and Storage

Hazard Label Information: Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

Precautions To Be Taken in Handling: Avoid contact with eyes, skin, and clothing.
Do not reuse this container.
Use with adequate ventilation.
Wash thoroughly after handling.

Precautions To Be Taken in Storing: Store at correct temperature.

8. Exposure Controls/Personal Protection

Protective Equipment Summary - Hazard Label Information: Eye wash station in work area Lab coat Latex disposable gloves Safety glasses Safety shower in work area Vent Hood

Respiratory Equipment (Specify Type): No data available.

Eye Protection: Safety glasses

Protective Gloves: Latex disposable gloves

Other Protective Clothing: Lab coat

Engineering Controls (Ventilation etc.): Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Work/Hygienic/Maintenance Practices: Do not take internally.
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Wash thoroughly after handling.

9. Physical and Chemical Properties

Physical States: [ ] Gas [ ] Liquid [X] Solid

Melting Point: No data.

Boiling Point: No data.

Autoignition Pt: No data.

Flash Pt: No data. Method: See note below

Explosive Limits: LEL: No data. UEL: No data.

Specific Gravity (Water = 1): N.A.

Vapor Pressure (vs. Air or mm Hg): N.A.

Vapor Density (vs. Air = 1): N.A.

Evaporation Rate (vs Butyl Acetate=1): N.A.

Solubility in Water: 10 mg/ml* at 25.0 C

Other Solubility Notes: *PBS (pH 7.2), insoluble in EtOH, DMF, & DMSO, see product insert

Percent Volatile: No data.

Corrosion Rate: No data.

Formula: $C_8H_{18}N_6 \cdot 2HCl$

Molecular Weight: 271.20

pH: No data.

Appearance and Odor: A crystalline solid

10. Stability and Reactivity

Stability: Unstable [ ] Stable [X]

Conditions To Avoid - Instability:
protect from light
protect from heat
protect from high temperatures
protect from friction
protect from static electrical charge
protect from ignition sources

Incompatibility - Materials To Avoid:
strong oxidizers
strong acids
strong alkalis
persulfates

Hazardous Decomposition Or Byproducts:
carbon monoxide
nitrogen oxides
nitrogen gas
ammonium gas
hydrogen chloride

Hazardous Polymerization: Will occur [ ] Will not occur [X]

Conditions To Avoid - Hazardous Polymerization: No data available.

11. Toxicological Information

Toxicological Information: The toxicological effects of this compound have not been thoroughly studied.

AAPH - Toxicity Data:
Oral (rat) LD50:410 mg/kg
Oral (mouse) LD50: 800 mg/kg
Skin (rat) LD50:>5,900 mg/kg

Carcinogenicity/Other Information: No data available.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

Ecological Information: This material is expected to be toxic to aquatic life.
Runoff from fire control or dilution water may cause pollution.

13. Disposal Considerations

Waste Disposal Method: Dispose in accordance with local, state and federal regulations.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name: Self-heating, solid, organic, n.o.s. (2,2'-Azobis(2-amidinopropane)dihydrochloride)

DOT Hazard Class: 4.2

DOT Hazard Label: FLAMMABLE SOLID

UN/NA Number: 3088

Packing Group: II

Additional Transport Information: Transport in accordance with local, state, and federal regulations.

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. AAPH	2997-92-4	No	No	No	No

US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. AAPH	2997-92-4	No	No	Inventory	No

Regulatory Information: Regulatory information on this product is not available.

16. Other Information

Company Policy or Disclaimer

For research use only, not for human or veterinary clinical use.

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