SISCO RESEARCH LABORATORIES PVT. LTD.

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Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product Name 2,2-Azobis(2-Methylpropionamidine) Dihydrochloride (AAPH) extrapure, 98%

Product Code 47138

CAS No 2997-92-4

Company Name Sisco Research Laboratories Pvt. Ltd.

Address 608, B Wing, Satellite Gazebo, Andheri Ghatkopar Link Road, Andheri (E), Mumbai - 400 099, India

Section 2 - Composition/Information on Ingredients

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Self-reactive substances and mixtures (Type D), H242

Skin sensitisation (Category 1), H317

Acute toxicity, Oral (Category 4), H302**Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Section 3 - Hazards Identification

Substances

Formula :	C8H18N6 · 2HCl
Molecular weight :	271.19 g/mol
CAS-No. :	2997-92-4
EC-No. :	221-070-0

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Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
2,2'-Azobis[2-methylpropionamidine] dihydrochloride		
CAS-No. 2997-92-4 EC-No. 221-070-0	Self-react. D; Skin Sens. 1; Acute Tox. 4; H242, H317, H302	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4 - First Aid Measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

Section 5 - Fire Fighting Measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas**Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Sweep up and shovel.\'20 Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.\'20 Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

Section 7 - Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.Keep away from sources of ignition - No smoking.Keep away from heat and sources of ignition. **Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Moisture sensitive. Heat sensitive.**Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8 - Exposure Control / Personal Protection

Exposure controls

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9 - Physical and Chemical Properties

a) Appearance Form: granular
Colour: white

b) Odour No data available

c) Odour Threshold No data available

d) pH No data available

e) Melting point/freezing point No data available

f) Initial boiling point and boiling range No data available

g) Flash point No data available

h) Evaporation rate No data available i)

Flammability (solid, gas) No data available

j) Upper/lower flammability or explosive limits

k) Vapour pressure No data available l)

Vapour density No data available m)

Relative density No data available n)

Water solubility slightly soluble

o) Partition coefficient: n- octanol/water No data available

p) Auto-ignition temperature No data available

q) Decomposition temperature No data available

r) Viscosity No data available s)

Explosive properties No data available t)

Oxidizing properties No data available

Section 10 - Stability and Reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents, Strong acids

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

Section 11 - Toxicological Information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 410 mg/kg(2,2'-Azobis[2-methylpropionamidine] dihydrochloride)

LD50 Dermal - Rat - > 5,900 mg/kg(2,2'-Azobis[2-methylpropionamidine] dihydrochloride)

Skin corrosion/irritation

Skin - Rabbit(2,2'-Azobis[2-methylpropionamidine] dihydrochloride)

Result: Mild skin irritation

Serious eye damage/eye irritation

No data available(2,2'-Azobis[2-methylpropionamidine] dihydrochloride)

Respiratory or skin sensitisation

Germ cell mutagenicity

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Specific target organ toxicity - single exposure
No data available(2,2'-Azobis[2-methylpropionamidine] dihydrochloride)

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available(2,2'-Azobis[2-methylpropionamidine] dihydrochloride)

Additional Information
RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Anorexia., Headache, Dizziness, Vomiting, Diarrhoea, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(2,2'-Azobis[2- methylpropionamidine] dihydrochloride)

Section 12 - Ecological Information

Toxicity

Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) - > 100 mg/l - 96 h(2,2'-Azobis[2-methylpropionamidine] dihydrochloride)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 4.84 mg/l - 48 h(2,2'-Azobis[2- methylpropionamidine] dihydrochloride)**Persistence and degradability**
No data available**Bioaccumulative potential**
No data available**Mobility in soil**
No data available(2,2'-Azobis[2-methylpropionamidine] dihydrochloride)
Other adverse effects
Toxic to aquatic life with long lasting effects.

Section 13 - Disposal Considerations

Waste treatment methods

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

Section 14 - Transport Information

NOT REGULATED FOR TRANSPORT

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Chemical safety assessment

For this product a chemical safety assessment was not carried out

Section 16 - Other Information

Sisco Research Laboratories Pvt. Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.