



Material Safety Data Sheet

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Version: 002

1. Product and Company Information

Product Name: *N,N*-Dimethylbutylammonium propionate
Company: Bioniqs Limited
Biocentre
York Science Park
York YO10 5DG
UK

Telephone: +44 (0)1904 561538
Emergency Telephone: as above
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2. Composition/Information on Ingredients

Product Name: *N,N*-Dimethylbutylammonium propionate
CAS Number: N/A
EC Number: N/A
Formula: $C_9H_{21}NO_2$
Molecular Weight: 175.27
Synonyms: *N,N*-Dimethylbutylammonium propanoate, *N,N*-Dimethylbutanaminium propionate, ABBE-003

3. Hazards Identification

Flammable. Harmful in contact with skin and if swallowed.

4. First Aid Measures

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Skin Contact: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.
Eye Contact: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers. Call a physician.
Ingestion: If swallowed, wash out mouth with water provided person is conscious. Call a physician. Do not induce vomiting.

5. Fire Fighting Measures

Extinguishing Media: Suitable: Water, carbon dioxide, dry powder or appropriate foam.
Special Risks: Emits toxic fumes under fire conditions.
Special Protective Equipment for Emergency Personnel:
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

Personal Precautions to be taken in Case of Leak or Spill:

Evacuate area. Wear rubber boots and heavy rubber gloves.

Methods of Cleaning Up:

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7. Handling and Storage

Handling: Avoid contact with eyes, skin or clothing. Avoid prolonged or repeated exposure.

Storage: Keep tightly closed and dry. Hygroscopic – store under inert gas.

8. Exposure Controls/Personal Protection

Engineering Controls:

Safety shower and eye bath.

General Hygiene Measures:

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

Personal Protective Equipment:

Hand protection – Compatible chemical-resistant gloves.

Eye protection – Chemical safety goggles.

9. Physical and Chemical Properties

Appearance:	faint yellow liquid
pH:	N/A
BP:	N/A
MP:	N/A
Flash Point:	N/A
Flammability:	N/A
Autoignition Temperature:	N/A
Oxidizing Properties:	N/A
Explosive Properties:	N/A
Explosion Limits:	N/A
Vapour Pressure:	N/A
Density:	0.85g cm ⁻³
Partition Coefficient:	N/A
Viscosity:	3.7 mPa.s
Vapour Density:	N/A
Saturated Vapour Concentration:	N/A
Evaporation Rate:	N/A
Bulk Density:	N/A
Decomposition Temperature:	N/A
Solvent Content:	N/A
Water Content:	N/A
Surface Tension:	N/A
Conductivity:	N/A
Miscellaneous Data:	N/A
Solubility:	Soluble in hexane, dichloromethane, methanol, ethanol, DMSO, acetonitrile, toluene, THF, ethylacetate and water.

10. Stability and Reactivity

Stability: Stable

Conditions to Avoid: Absorbs water from air.

Materials to Avoid: Strong acids, Strong bases, Metals, Oxidizing agents.

Hazardous Decomposition Products:

Carbon monoxide, Carbon dioxide, Nitrogen oxides.

Hazardous Polymerization:

Will not occur.

Bioniqs Ltd

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11. Toxicological Information

RTECS Number: N/A
 Acute Toxicity: Caution – Substance not yet fully tested. Exercise due care.
 Signs and Symptoms of Exposure: Caution - Substance not yet fully tested. Exercise due care.
 Route of Exposure: Skin Contact: Causes skin irritation.
 Skin Absorption: May be harmful if absorbed through skin.
 Eye Contact: Causes severe eye irritation.
 Inhalation: May be harmful if inhaled. Material is expected to be irritating to mucous membranes and upper respiratory tract.
 Ingestion: Harmful if swallowed.

12. Ecological Information

Caution – Substance not yet fully tested. Exercise due care. Material is expected to readily biodegrade.

13. Disposal Considerations

Substance Disposal: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

14. Transport Information

UN Number: N/A
 Class: Not yet classified
 PG: Not yet classified
 Proper Shipping Name: Not yet classified
 Marine Pollutant: No
 Severe Marine Pollutant: No

15. Regulatory Information

Classification and Labelling according to EU Directives

Indication of Danger: F (Flammable) Xn (Harmful)
 R-Phrases: 10 21/22
 Harmful in contact with skin and if swallowed.
 S-Phrases: 7/8, 24/25, 26, 36/37/39
 Keep container tightly closed and dry. Avoid contact with eyes and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection.

16. Other Information

Warranty: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Bioniqs Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product. See documents accompanying invoice for additional terms and conditions of sale. Copyright 2005 Bioniqs Ltd. License granted to make unlimited paper copies for internal use only.

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