# 1. Identification

<table>
<thead>
<tr>
<th>Product identifier</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product name</strong></td>
<td>Beta-Nicotinamide adenine dinucleotide (NAD+)</td>
</tr>
<tr>
<td><strong>Other means of identification</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Product No</strong></td>
<td>B9007</td>
</tr>
<tr>
<td><strong>Synonyms</strong></td>
<td>None</td>
</tr>
</tbody>
</table>

**Recommended use of the chemical and restrictions on use**

**Recommended use**
This product is for research and development only

**Restrictions on use**

**Details of the supplier of the safety data sheet**

**Supplier Address**
New England BioLabs
240 County Road
Ipswich, MA 01938
USA

**Emergency telephone number**

**Company Phone Number**
978-927-5054, 800-632-5227 (toll free)

**Telefax**
978-921-1350

**E-mail address**
info@neb.com

**24 Hour Emergency Phone Number**
Chemtrec +1 703-741-5970
2. Hazard(s) identification

Classification
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Hazard statements
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other information
No information available.

3. Composition/information on ingredients

Substance
Not applicable.

Mixture
The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. First-aid measures

Description of first aid measures

Inhalation
Remove to fresh air.

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact
Wash skin with soap and water.

Ingestion
Rinse mouth.

Most important symptoms and effects, both acute and delayed

Symptoms
No information available.

Effects of Exposure
No information available.

Indication of any immediate medical attention and special treatment needed
5. Fire-fighting measures

Suitable Extinguishing Media
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media
- Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical
- No information available.

Explosion data
- Sensitivity to mechanical impact: None.
- Sensitivity to static discharge: None.

Special protective equipment and precautions for fire-fighters
- Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.
- Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
- Ensure adequate ventilation.

Methods and material for containment and cleaning up

Methods for containment
- Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
- Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling
- Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions
- Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Exposure Limits
- This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Appropriate engineering controls

Engineering controls
- Showers
- Eyewash stations
- Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection
No special protective equipment required.

Skin and body protection
No special protective equipment required.

Respiratory protection
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
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</tr>
<tr>
<td>Appearance</td>
<td>Colorless</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
<td></td>
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<tr>
<td>Odor threshold</td>
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<td></td>
</tr>
<tr>
<td>pH</td>
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<td>None known</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flash point</td>
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<td>None known</td>
</tr>
<tr>
<td>Evaporation rate</td>
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<td>None known</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
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</tr>
<tr>
<td>Flammability Limit in Air</td>
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<td>None known</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
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</tr>
<tr>
<td>Lower flammability or explosive limits</td>
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<td>None known</td>
</tr>
<tr>
<td>Vapor pressure</td>
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</tr>
<tr>
<td>Vapor density</td>
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</tr>
<tr>
<td>Relative density</td>
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<tr>
<td>Water solubility</td>
<td>No data available</td>
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<tr>
<td>Solubility(ies)</td>
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<td>None known</td>
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<tr>
<td>Partition coefficient</td>
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<td>None known</td>
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<tr>
<td>Autoignition temperature</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
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</tr>
<tr>
<td>Kinematic viscosity</td>
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</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No data available</td>
<td>None known</td>
</tr>
</tbody>
</table>

Other information

Explosive properties
No information available

Oxidizing properties
No information available

Softening point
No information available
Molecular weight: No information available
VOC content: No information available
Liquid Density: No information available
Bulk density: No information available

10. Stability and reactivity

Reactivity: No information available.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: None under normal processing.
Conditions to avoid: None known based on information supplied.
Incompatible materials: None known based on information supplied.
Hazardous decomposition products: None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

- Inhalation: Specific test data for the substance or mixture is not available.
- Eye contact: Specific test data for the substance or mixture is not available.
- Skin contact: Specific test data for the substance or mixture is not available.
- Ingestion: Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

- Symptoms: No information available.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

- ATEmix (oral): 99,999.00 mg/kg
- ATEmix (dermal): 99,999.00 mg/kg
- ATEmix (inhalation-gas): 99,999.00 ppm
- ATEmix (inhalation-dust/mist): 99,999.00 mg/l
- ATEmix (inhalation-vapor): 99,999.00 mg/l

Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Skin corrosion/irritation: No information available.
- Serious eye damage/eye irritation: No information available.
- Respiratory or skin sensitization: No information available.
Germ cell mutagenicity  No information available.

Carcinogenicity  No information available.

Reproductive toxicity  No information available.

STOT - single exposure  No information available.

STOT - repeated exposure  No information available.

Aspiration hazard  No information available.

Other adverse effects  No information available.

Interactive effects  No information available.

**12. Ecological information**

Ecotoxicity

Persistence and degradability  No information available.

Bioaccumulation  There is no data for this product.

Other adverse effects  No information available.

**13. Disposal considerations**

Waste treatment methods

Waste from residues/unused products  Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging  Do not reuse empty containers.

**14. Transport information**

DOT  Not regulated

TDG  Not regulated
15. Regulatory information

International Inventories

- TSCA: Contact supplier for inventory compliance status.
- DSL/NDSL: Contact supplier for inventory compliance status.
- EINECS/ELINCS: Contact supplier for inventory compliance status.
- ENCS: Contact supplier for inventory compliance status.
- IECSC: Contact supplier for inventory compliance status.
- KECL: Contact supplier for inventory compliance status.
- PICCS: Contact supplier for inventory compliance status.
- AIIC: Contact supplier for inventory compliance status.
- NZIoC: Contact supplier for inventory compliance status.

Legend:
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AIIC - Australian Inventory of Chemical Substances
- NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.
U.S. State Right-to-Know Regulations
This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. Other information

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>Health hazards</td>
<td>Flammability</td>
<td>Physical hazards</td>
<td>Personal protection</td>
</tr>
</tbody>
</table>

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSOAL PROTECTION

<table>
<thead>
<tr>
<th>Key literature references and sources for data used to compile the SDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency for Toxic Substances and Disease Registry (ATSDR)</td>
</tr>
<tr>
<td>U.S. Environmental Protection Agency ChemView Database</td>
</tr>
<tr>
<td>European Food Safety Authority (EFSA)</td>
</tr>
<tr>
<td>EPA (Environmental Protection Agency)</td>
</tr>
<tr>
<td>Acute Exposure Guideline Level(s) (AEGL(s))</td>
</tr>
<tr>
<td>U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act</td>
</tr>
<tr>
<td>U.S. Environmental Protection Agency High Production Volume Chemicals</td>
</tr>
<tr>
<td>Food Research Journal</td>
</tr>
<tr>
<td>Hazardous Substance Database</td>
</tr>
<tr>
<td>International Uniform Chemical Information Database (IUCLID)</td>
</tr>
<tr>
<td>National Institute of Technology and Evaluation (NITE)</td>
</tr>
<tr>
<td>Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)</td>
</tr>
<tr>
<td>NIOSH (National Institute for Occupational Safety and Health)</td>
</tr>
<tr>
<td>National Library of Medicine's ChemID Plus (NLM CIP)</td>
</tr>
<tr>
<td>National Library of Medicine's PubMed database (NLM PUBMED)</td>
</tr>
<tr>
<td>National Toxicology Program (NTP)</td>
</tr>
<tr>
<td>New Zealand's Chemical Classification and Information Database (CCID)</td>
</tr>
<tr>
<td>Organization for Economic Co-operation and Development High Production Volume Chemicals Program</td>
</tr>
<tr>
<td>Organization for Economic Co-operation and Development Screening Information Data Set</td>
</tr>
<tr>
<td>World Health Organization</td>
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</tbody>
</table>

Prepared by Environmental, Health and Safety
978-927-5054

Revision date 13-Dec-2023
Revision note SDS is valid 3 years from revision date. Contact info@neb.com for latest revision.

Disclaimer
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End of Safety Data Sheet