

NICOTINAMIDE ADENINE DINUCLEOTIDE

SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

Product Name: NICOTINAMIDE ADENINE DINUCLEOTIDE

Product Code: 3179

CAS#: 53-84-9

Synonym: DPN; NAD

Chemical Name: Not available

Chemical Formula: C₂₁ H₂₇ N₇ O₁₄ P₂

Formula weight: 663.43

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

Composition:

Name: NICOTINAMIDE ADENINE DINUCLEOTIDE

Toxicological Data on Ingredients: Not available

SECTION 3: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 :not a hazards substance or mixture

Classification according to EU Directives 67/548/EEC or 1999/45/EC not a hazards substance or mixture

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 delay: No data available

Indication of any immediate medical attention and special treatment needed: No data available

SECTION 5: FIRE AND EXPLOSION DATA

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)

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

Environmental precautions: Do not let product enter drains.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers.



SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Not available

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place, store in cool place, heat sensitive.

Storage Class: Not Available.

Specific end use(s) A part from the uses: No other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/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: Safety glasses with side-shields conforming to EN166 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.

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: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance Form	: White color fine powder
Color	: Not available
Odor	: Not available
Odor Threshold	: Not available
pH	: Not available
Melting point/freezing point	: Not available
Initial boiling point and boiling range	: Not available
Flash point	: Not available
Evaporation rate	: Not available
Flammability (solid, gas)	: Not available
Upper/lower flammability or explosive limits	: Not available
Vapor pressure	: Not available
Vapor density	: Not available
Relative density	: Not available
Water solubility	: Not available
Partition coefficient	: Not available
Auto-ignition temperature	: Not available

SECTION 10: STABILITY AND REACTIVITY DATA

Reactivity: Not available

Chemical stability: The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions: Not Available

Conditions to avoid: Heat

Incompatible materials: Oxidizing agents, Strong acids, Nitrites, Nitrates Strong oxidizing agents



Hazardous decomposition products Other decomposition products: In the event of fire

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - Rat - male and female - > 2.000 mg/kg

LC50 Inhalation - Not available

(OECD Test Guideline 403)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

Remarks: (anhydrous substance)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irreversible effects on the eye

(OECD Test Guideline 405)

Remarks: (anhydrous substance)

Respiratory or skin sensitisation

Germ cell mutagenicity

Ames test

Result: negative

(National Toxicology Program)

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.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: Not available

Persistence and degradability: Not Available

Bio accumulative potential: Not available

Mobility in soil: Not available

Results of PBT and vPvB assessment PBT/vPvB assessment: Not available

Other adverse effects: Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Product Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

UN number:

ADR/RID:

IMDG:

IATA:

UN proper shipping name

ADR/RID: Not dangerous goods



IMDG: Not dangerous goods

IATA: Not dangerous goods

Transport hazard class(es):

ADR/RID:

IMDG:

IATA:

Packaging group:

ADR/RID:

IMDG:

IATA:

Environmental hazards:

ADR/RID: No

IMDG Marine pollutant: No

IATA: No

SECTION 15: OTHER REGULATORY INFORMATION

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

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

Other regulations:

Take note of Dir 94/33/EC on the protection of young people at work.

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements: Not available

Special Considerations: Not available

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user's obligation to investigate and determine the suitability of the information for their particular purpose.