

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name :  $\beta$ -Nicotinamide adenine dinucleotide phosphate hydrate

Product Number : N5755  
Brand : Sigma

Company : Sigma-Aldrich Canada, Ltd  
2149 Winston Park Drive  
OAKVILLE ON L6H 6J8  
CANADA

Telephone : +1 9058299500  
Fax : +1 9058299292  
Emergency Phone # : 800-424-9300

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Triphosphopyridine nucleotide  
NADP  
 $\beta$ -NADP  
TPN  
Coenzyme II

Formula :  $C_{21}H_{28}N_7O_{17}P_3 \cdot xH_2O$   
Molecular Weight : 743.41 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Nadide phosphate hydrate			
-	200-178-1	-	-

## 3. HAZARDS IDENTIFICATION

## Emergency Overview

## Target Organs

Liver, Kidney

## WHMIS Classification

D2B Toxic Material Causing Other Toxic Effects Moderate skin irritant  
Moderate respiratory irritant  
Moderate eye irritant

## HMIS Classification

Health Hazard: 2  
Chronic Health Hazard: \*  
Flammability: 0

Sigma - N5755

Sigma-Aldrich Corporation  
www.sigma-aldrich.com

Page 1 of 5

Physical hazards: 0

Potential Health Effects

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation.  
**Ingestion** May be harmful if swallowed.

## 4. FIRST AID MEASURES

## General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

## 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

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

## If swallowed

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

## 5. FIRE-FIGHTING MEASURES

## Flammable properties

Flash point no data available

Ignition temperature no data available

## Suitable extinguishing media

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

## Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

## Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

## Environmental precautions

Do not let product enter drains.

## Methods for cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

## Handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

## Storage

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

Recommended storage temperature: -20 °C

Sigma - N5755

Sigma-Aldrich Corporation  
www.sigma-aldrich.com

Page 2 of 5

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

## Personal protective equipment

## Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## Hand protection

Handle with gloves.

## Eye protection

Safety glasses

## Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

## Hygiene measures

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## Appearance

Form solid

## Safety data

pH no data available

Melting point no data available

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility no data available

## 10. STABILITY AND REACTIVITY

## Storage stability

Stable under recommended storage conditions.

## Materials to avoid

Strong oxidizing agents

## Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Oxides of phosphorus

## 11. TOXICOLOGICAL INFORMATION

Sigma - N5755

Sigma-Aldrich Corporation  
www.sigma-aldrich.com

Page 3 of 5

## Acute toxicity

no data available

## Irritation and corrosion

no data available

## Sensitisation

no data available

## Chronic exposure

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.

## Signs and Symptoms of Exposure

Dermatitis

## Potential Health Effects

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation.  
**Ingestion** May be harmful if swallowed.  
**Target Organs** Liver, Kidney,

## 12. ECOLOGICAL INFORMATION

## Elimination information (persistence and degradability)

no data available

## Ecotoxicity effects

no data available

## Further information on ecology

no data available

## 13. DISPOSAL CONSIDERATIONS

## Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

## Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

## DOT (US)

Not dangerous goods

## IMDG

Not dangerous goods

## IATA

Not dangerous goods

Sigma - N5755

Sigma-Aldrich Corporation  
www.sigma-aldrich.com

Page 4 of 5

## 15. REGULATORY INFORMATION

## DSL Status

All components of this product are on the Canadian DSL list.

## WHMIS Classification

D2B Toxic Material Causing Other Toxic Effects Moderate skin irritant  
Moderate respiratory irritant  
Moderate eye irritant

## 16. OTHER INFORMATION

## Further information

Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only. 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. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Sigma - N5755

Sigma-Aldrich Corporation  
www.sigma-aldrich.com

Page 5 of 5