Section 1 - Chemical Product and Company Identification

**MSDS Name:** NADPH tetrasodium salt

**Catalog Numbers:** AC328740000, AC328740010, AC328742500, AC373820000, AC373822500

**Synonyms:** beta-Nicotinamide adenine dinucleotide phosphate (reduced form, beta-NADPH)

**Company Identification:**
- Janssen Pharmaceuticalaan 3a
  2440 Geel, Belgium
- Acros Organics
  One Reagent Lane
  Fair Lawn, NJ 07410
- For information in the US, call: 800-ACROS-01
- For information in Europe, call: +32 14 57 52 11
- Emergency Number, Europe: +32 14 57 52 99
- CHEMTREC Phone Number, US: 800-424-9300
- CHEMTREC Phone Number, Europe: 703-527-3887

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Section 2 - Composition, Information on Ingredients

**CAS#:** 2646-71-1

**Chemical Name:** NADPH tetrasodium salt

%: >95%

**EINECS#:** 220-163-3

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**Hazard Symbols:** None listed

**Risk Phrases:** None listed

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Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution! Light sensitive. The toxicological properties of this material have not been fully investigated. May cause eye, skin, and respiratory tract irritation. Target Organs: No data found.

Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation. May be harmful if absorbed through the skin.

**Ingestion:** May cause irritation of the digestive tract. May be harmful if swallowed.

**Inhalation:** May cause respiratory tract irritation. May be harmful if inhaled.

**Chronic:** No information found.

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Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature: Not available
Flash Point: Not available
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
NFPA Rating: health: 1; flammability: 0; instability: 1;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.
Storage: Store in a tightly closed container. Deep freeze (below -20°C).

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>NADPH tetrasodium salt</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: NADPH tetrasodium salt: None listed

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Powder
Color: off-white to light yellow
Odor: odorless
Section 10 - Stability and Reactivity

Chemical Stability: Light sensitive.
Conditions to Avoid: Incompatible materials, light, dust generation, excess heat.
Incompatibilities with Other Materials Strong oxidizing agents, strong acids, strong bases.
Hazardous Decomposition Products Nitrogen oxides, carbon monoxide, oxides of phosphorus, carbon dioxide.
Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 2646-71-1: None listed
LD50/LC50: RTECS: Not available.
Carcinogenicity: NADPH tetrasodium salt - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Not Regulated
Hazard Class:
UN Number:
Packing Group:
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols: Not available
Risk Phrases:
Safety Phrases:
S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)
CAS# 2646-71-1: 1

Canada
Canadian WHMIS Classifications: Not available
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
CAS# 2646-71-1 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 2646-71-1 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Other Information
MSDS Creation Date: 9/20/2004
Revision #3 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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