

Material Safety Data Sheet

pNPP Phosphatase Assay Kits

Revision Number: 5.0

Last updated 1/31/2015

1. Product and Company Identification

Trade Name: pNPP Phosphatase Assay Kits
Catalog Number: Z5030009, Z5030010, Z5030011
Manufacturer/Supplier: Biochain Institute, Inc.
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Newark, CA 94560. USA
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2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity, Oral (Category 3), H301
Acute toxicity, Inhalation (Category 3), H331
Acute toxicity, Dermal (Category 3), H311
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Chronic aquatic toxicity (Category 2), H411

GHS Label elements, including precautionary statements

Pictogram

Signal word: Danger

Hazard statements

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects

Precautionary statements

P273 Avoid release to the environment.
P280 Wear protective gloves/ clothing and eye/ face protection.
P302 + P352: *If on skin:* Wash with plenty of soap and water.
P304 + P340: *If inhaled:* Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: *If in eyes:* Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a doctor/ physician if you feel unwell.
P332 + P313: *If skin irritation occurs:* Get medical advice/ attention.
P337 + P313: *If eye irritation persists:* Get medical advice/ attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product contains the following components and mixture of the following substances with non-hazardous additions.

Reagent: 280 µL/550 µL Liquid

Contains 1-50% 4-nitrophenyl phosphate (CAS #: 4264-83-9) and 1-55% phenol (CAS#: 108-95-2)

Assay Buffer: 25 mL/50 mL Liquid

Contains 0.1-2% HEPES (CAS#: 7365-45-9)

Stop Buffer: 25 mL/50 mL Liquid

Contains 1-15% sodium carbonate (CAS #: 497-19-8)

4. FIRST AID MEASURES

Eye: Eye irritation. Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get immediate medical attention.

Skin: Itching or burning of the skin. Immediately flush the skin with plenty of water while removing contaminated clothing and shoes. Get immediate medical attention. Wash contaminated clothing before reuse.

Inhalation: Remove exposed person from source of exposure to fresh air. If not breathing, clear airway and start cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth resuscitation.

Ingestion: Get immediate medical attention. Do not induce vomiting unless directed by medical personnel.

5. FIRE FIGHTING MEASURES

Extinguishing media: water spray, carbon dioxide, dry chemical powder or appropriate foam.

Special firefighting procedures: wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosion hazards: emits toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Keep unnecessary people away; isolate hazard area and deny entry. Small spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Large spills: Dike far ahead of liquid spill for later disposal. Do not flush to sewer or waterways. Prevent release to the environment if possible.

7. HANDLING AND STORAGE

Keep receptacles tightly sealed and store according to the instructions in the assay protocol.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Follow standard laboratory safety procedures, including wearing chemical safety goggles, face shield, gloves, NIOSH approved respiratory protection and protective clothing. Wash and dry hands.

9. PHYSICAL AND CHEMICAL PROPERTIES

Refer to 3. Composition/Information On Ingredients.

10. STABILITY AND REACTIVITY

Thermal Decomposition: no decomposition if used according to specifications. **Dangerous Products of Decomposition:** nitrogen and sulfur oxides. **Dangerous Reactions:** none.

11. TOXICOLOGICAL INFORMATION

The toxicological effects of this product have not been thoroughly studied. We recommend handling all chemicals with caution.

4-Nitrophenyl phosphate - Acute toxicity, no data available; Inhalation: no data available; Dermal: no data available; Skin corrosion/irritation: no data available, Serious eye damage/eye irritation; no data available.

Phenol - Acute toxicity Oral LC50 rat: 317.0 mg/kg; Inhalation rat 8h: 900 mg/m³; Dermal rabbit: 630.0 mg/kg; Skin corrosion/irritation rabbit: 24h: Severe skin irritation; Serious eye damage/eye irritation rabbit: Corrosive.

Sodium carbonate - Acute toxicity Oral LC50 rat: 4,090 mg/kg; Inhalation rat 2h: 5,750 mg/m³; Dermal: no data available; Skin corrosion/irritation rabbit 24h: Mild skin irritation; Serious eye damage/eye irritation rabbit 24h: Eye irritation.

12. ECOLOGICAL INFORMATION

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

13. DISPOSAL INFORMATION

Dispose in accordance with local, state or national regulations.

14. TRANSPORT INFORMATION

Proper Shipping Name: Assay Kits

DOT (US) - Not dangerous goods.

IMDG - Not dangerous goods.

IATA - Not dangerous goods.

Additional Transport Information: transport in accordance with local, state and national regulations.

15. REGULATORY INFORMATION

OSHA Hazards: Target Organ Effect.

SARA 311/312 Hazards: Chronic Health Hazard.

16. OTHER INFORMATION

The above information is believed to be accurate, but does not purport to be all inclusive and shall be used only as a guide BioChain Institute makes no warranty, express or implied, and assumes no responsibility as to the accuracy or suitability of such information or application to the User's intended purpose or for consequences of its use. The Users should make independent decisions regarding the completeness of information based on all sources available.