



Safety Data Sheet

Revision Date: 25 January 2022

Product Name: DetectX® Alkaline Phosphatase Colorimetric Activity Kit

Section 1: Identification

Product Name: DetectX® Alkaline Phosphatase Colorimetric Activity Kit
Also known as: Catalog Number K082-H1
Manufacturer / Supplier: Arbor Assays
1514 Eisenhower Place
Ann Arbor, MI 48108-3284 Telephone 734-677-1774 (U.S.)
U.S.A. Fax 734-677-6860 (U.S.)
Recommended Use: For Research Use Only

Section 2: Hazard(s) Identification

Classification: Regulation (EC) No. 1272/2008 [CLP/GHS]

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|------------------|--|
| Sodium Azide | Acute Oral Toxicity, Category 2 |
| Sodium Phosphate | Acute Dermal Toxicity, Category 1 Specific Organ Toxicity, Category 2 |
| Diethanolamine | Skin Sensitization, Category 1 Skin irritation, Class 2 Eye irritation, Class 2A |



Hazard statements: Corrosive, Caustic.
May be harmful if inhaled, absorbed through skin, swallowed. May be irritating to eyes, respiratory system, and skin.
May react with lead and copper plumbing to form highly explosive metal azides.

Precautionary statements: Wash hands thoroughly after handling.
Wear protective gloves, clothing, and eye/face protection.
Avoid release to the environment.

Section 3: Information on Ingredients

Components: Alkaline Phosphatase Standard (C294-50UL)
 p-NPP Substrate (X156-11ML)
 Assay Buffer Concentrate (X155-28ML)
 Stop solution (X158-6ML)

| Description: | <u>Chemical Name</u> | <u>CAS No.</u> | <u>Percent</u> |
|-----------------------|---------------------------|----------------|----------------|
| Stop solution X158: | Sodium Azide | 26628-22-8 | ≤ 0.09% |
| | Sodium phosphate tribasic | 10101-89-0 | ≤ 3.81% |
| p-NPP Substrate X156: | Diethanolamine | 111-42-2 | --- |

Additional components of the kit are non-hazardous or the specific chemical identity and/or exact percentage (concentration) of composition have been withheld as a trade secret.

Section 4: First-Aid Measures

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| Inhalation | If inhaled, remove to fresh air. Seek medical attention if any respiratory symptoms develop. |
| Skin Contact | Rinse with copious amounts of water and wash thoroughly with soap and water for 15 minutes. If irritation or discomfort develops seek medical attention. |
| Eye Contact | Rinse eyes with running water, checking for and removing contact lenses. Continue for at least 15 minutes. Seek medical attention. |
| Ingestion | If swallowed, wash out mouth with water if person is conscious. Seek medical attention. |

Section 5: Fire-Fighting Measures

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| Extinguishing Media | Suitable: Carbon Dioxide, dry chemical powder, or appropriate foam. |
| Firefighting Protective Equipment | Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. |

Section 6: Accidental Release Measures

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| Cleanup Procedures | Wear appropriate protective clothing, Contain spill to prevent migration. Absorb spill with inert material, place in sealed container and hold for appropriate disposal. |
| Waste Disposal | Dispose of in accordance with federal, state, and local regulations. |

Section 7: Handling and Storage

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| Handling | Avoid getting components of this kit on you or in you. Do not breathe vapor. Always wear appropriate protective clothing. Always wash hands and other exposed areas thoroughly after using this kit. Do not eat or drink while using this kit. Qualified and experienced professionals should only handle this kit. |
| Storage | Store according to the package insert instructions. |

Section 8: Exposure Controls / Personal Protection

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| Engineering Controls | No special engineering controls are required when working with this kit. Use with adequate ventilation. |
| Protective Equipment | Safety glasses are recommended to prevent eye contact. Chemical resistant gloves and a lab coat should be worn to prevent skin contact. |

Section 9: Physical and Chemical Properties

| <u>Characteristic</u> | TSP stop solution X158, (Sodium phosphate tribasic, 3.81%) | TSP stop solution X158, (Sodium Azide, ≤ 0.09%) | p-NPP Substrate X156, (DEA buffered) |
|-----------------------|--|---|---|
| Appearance | Clear, colorless liquid | Clear, colorless liquid | Clear to pale yellow liquid |
| Odor | None | None | Minimal odor |
| Boiling Point | 100°C | 100°C | N/A |
| Melting Point | N/A | N/A | N/A |
| Density | 1.0 | N/A | N/A |
| Vapor Pressure | 14 mmHg | N/A | N/A |
| Solubility in Water | 285 g/l at 20 °C (68 °F) | Complete | Complete |
| pH | 12.5 | N/A | 9.0 |

Section 10: Stability and Reactivity

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| Stability | This material is stable until the expiration date on the kit if stored as directed. |
| Conditions to Avoid | Heat, incompatibles |
| Incompatibilities | Strong oxidizing agents or acids. Sodium azide may react with lead and copper plumbing. |

Section 11: Toxicological InformationRoute of Exposure

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| Skin Contact | May cause skin irritation. |
| Skin Absorption | May be harmful if absorbed through the skin. |
| Eye Contact | May cause eye irritation. |
| Inhalation | May be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled. |
| Ingestion | Harmful if swallowed. |
| <u>Symptoms of Exposure</u> | To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |

Section 12: Ecological Information

Toxicity:

Sodium Azide: LD50 oral: 27 mg/kg (rat); LD50 skin: 20 mg/kg (rabbit)
LD50: 4.2 mg/L/96 hr (Daphnia pulex), 0.8-1.6 mg/L/96 hr (Rainbow trout)

Persistence / degradability:

Sodium Azide: Soluble in water. Persistence is unlikely based on information.
Sodium Phosphate: Readily degradable in the environment. Not bioaccumulative.
tribasic

Mobility in soil: No data available.

Results of PBT/vPvB No data available.

assessment:

Other adverse effects: Toxic to aquatic life with long lasting effects.

Section 13: Disposal Considerations

Dispose of waste materials, unused components and contaminated packaging in compliance with country, state, district and local regulations. If unsure of the applicable requirements, contact the authorities for information. Solutions containing human-sourced materials should be handled as if potentially infectious. Use safe laboratory procedures in compliance with the Federal Bloodborne Pathogens Standard (29 CFR Part 1910.1030 December 1991).

Section 14: Transport Information

U.S. and Canadian Transportation; DOT

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|--------------------------|------------------|
| Proper Shipping Name | Chemical Kits |
| UN Identification Number | 3316 |
| Class and Description | 9, Miscellaneous |
| Packing Group | N/A |
| Hazard Label | Class 9 |

International Air Transportation (IATA)

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|--------------------------|------------------|
| Proper Shipping Name | Chemical Kits |
| UN Identification Number | 3316 |
| Class and Description | 9, Miscellaneous |
| Packing Group | III |
| Hazard Label | Class 9 |

Section 15: Regulatory InformationProduct related information

The product is not subject to classification according to the sources of literature known to us.

Observe general safety regulations when handling chemicals.

Safety Statements

Avoid release to the environment.

Risk Statements

Harmful if swallowed.

U.S. Regulatory Information

Sara Listed: Yes. The sodium azide (CAS# 26628-22-8) contained in this product is subject to SARA 313 Reporting requirements.

Section 16: Other Information

Disclaimer: For Research Use Only. Not for diagnostic, therapeutic, or other uses.

Further Information: The information contained in this document is accurate to the best of our knowledge and is provided in good faith. This document is intended only as a guide to the appropriate precautionary handling of the materials contained in this kit by properly trained personnel using this kit. Final determination or suitability of any materials is the sole responsibility of the user. Arbor Assays shall not be held liable for any damage resulting from use or handling of this product.