**Standard Operating Procedure for Laboratories**

**SODIUM AZIDE**

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| --- | --- |
| Department: | Click here to enter text. |
| Principal Investigator(s): | Click here to enter text. |
| Lab Manager/Coordinator: | Click here to enter text. |
| Location of Experiment:  (Building/Room Number) | Click here to enter text. |
| Lab Phone: | Click here to enter text. |
| Office Phone: | Click here to enter text. |
| Emergency Contact: (Name/Phone) | Click here to enter text. |

**Reviewed and Approved by**:

|  |  |  |
| --- | --- | --- |
| PI: (Typed Name) | Click here to enter text. | |
| PI: (Signature and Date) |  | Click here to enter a date. |
| Lab Manager: (if PI unavailable) |  | Click here to enter a date. |

**Hazardous Material Use and Management**

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| Hazardous Material(s) Used: (wt./volume) | Sodium Azide:  Maximum amount allowed without PI approval: |
| Hazardous Material Storage Location: | Store containers tightly closed in a dry, cool and well-ventilated place and in secondary container. Store away from metals, acids, carbon disulfide, bromine, chromyl chloride, hydrazine and dimethyl sulfate. Keep away from heat, air, light and moisture. Do not store on metal shelves  Designated Storage Area: |
| Experimental Procedure and Lab Techniques to be Used: | (If needed attach separate page) |
| Hazard Identification: (i.e., physical/health hazards) | **CAS # 26628-22-8**  **GHS Classification: Acutely toxic by ingestion and skin contact. Very toxic to aquatic life with long lasting effects.**   * Poison by ingestion, skin contact and injection. Can cause general anesthesia, sleepiness, hypotension, hypothermia, shortness of breath, and kidney changes. * Incompatible with acids, ammonium chloride and trichloroacetonitril, phosgene, cyanuric chloride, etc. reacts violently with benzoyl chloride combines with potassium hydroxide, bromine, barium carbonate, sulfuric acid. * Reacts with heavy metals to form dangerously explosive heavy metal azides, a particular problem in lab equipment and drain traps. * When heated to decomposition it emits very toxic fumes of nitrogen oxides and potassium oxides.   Review MSDS/SDS prior to working with chemical. |
| Engineering Controls: (chemical fume hood, biosafety cabinet, glove box) | Always handle in chemical fume hood with adequate exhaust ventilation or biological cabinet with negative pressure ductwork. **Do not use any metal items to handle or keep sodium azide.**  Safety shower and eyewash must be readily available. |
| Protective Equipment: | Always wear nitrile gloves, double gloves recommended. Changes gloves at least every 2 hours.  Wear tightly fitted safety classes or goggles. Faceshield may be recommended. Contact lenses should not be worn when working with this material.  Wear flame resistant lab coat, long pants and closed-toe shoes. Pay attention that your shoes don’t have any metal parts.  Check with glove manufacturer for more info. |
| Waste Collection/Disposal Method: | Waste should be collected in tightly closed one-quart container, in secondary containment and in a designated location inside a fume hood. Affix and complete hazardous waste label. Contact REHS for waste pick up. <https://halflife.rutgers.edu/forms/hazwaste.php> |
| Spill Management: | Evacuate personnel to safe place. Do not attempt to clean up a spill of pure sodium azide or it’s solution at 5% or greater. Call REHS.  Wear personal protective equipment. Absorb the spill with inert absorbent material and sweep it up, clean the surface with pH –adjusted water (pH greater than 9.0)  If a spill happened outside fume hood, on floor, on bench or outside the lab contact REHS for clean up or call 911. |
| First Aid: | Eyes: Flush eyes with warm water for 15 min. Seek medical attention.  Skin: Flush affected skin with plenty of water and mild soap. Cover affected skin with an anti-bacterial cream. Seek immediate medical attention.  Inhalation: Remove to fresh air. If breathing is difficult give oxygen. Seek medical attention.  Ingestion: Rinse mouth with water. Call poison center. Seek immediate medical attention. |

**Training**

* Prior to considering any work with sodium azide, designated personnel must be provided training specific to the hazard involved in working with the substance.
* The PI must provide his/her lab personnel with a copy of the SOP and a copy of the SDS provided with the manufacturer.
* The PI must ensure that his/her lab personnel have attended and are up to date on the appropriate laboratory safety training within the last year.

I have read and understood the content of this SOP and the SDS:

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| --- | --- | --- |
| Lab Personnel  (Running the Experiment) | Date of Hands-on Training from Department | Signature of Lab Personnel |
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**Acutely toxic by ingestion and skin contact. Very toxic to aquatic life with long lasting effects.**

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**FIRST AID**

**Eyes**: Flush eyes with warm water for 15 min. Seek medical attention.

**Skin:** Flush affected skin with plenty of water and mild soap. Cover affected skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation**: Remove to fresh air. If breathing is difficult give oxygen. Seek medical attention.

**Ingestion**: Rinse mouth with water. Call poison center. Seek immediate medical attention.