**Standard Operating Procedure for Laboratories**

**ORGANIC MERCURY COMPOUNDS**

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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) | Organic Mercury Compounds:Maximum amount allowed without PI approval: |
| Hazardous Material Storage Location: | Click here to enter text. |
| Experimental Procedure and Lab Technics to be Used:  | Click here to enter text. |
| Hazard Identification: (i.e., physical/health hazards) | **CAS #** **GHS Classification: Acutely toxic.*** Toxicity of the organomercury compounds differ depending on the chemical composition.
* Alkyl mercury compounds have very high toxicity;
* Aryl compounds are much less toxic. The alkyls and aryls commonly cause skin burns and irritation and both can absorb through the skin.
* Alkyl mercury exposure is known to cause fatal poisoning and permanent brain damage.
* Phenyl mercury appear to be moderately less toxic.
* Generally, exposure to organomercury compounds affect central nervous system. Many organic mercury compounds are explosively unstable or undergo hazardous reaction.
* When heated to decomposition they emit highly toxic fumes of mercury.

OSHA PEL: TWA 0.01mg/m3, CL 000.04mg/m3NIOSH REL: TWA 0.01mg/m3, STEL 0.03mg/m3Review MSDS/SDS prior to working with particular organomercury chemical. |
| Engineering Controls: (chemical fume hood, biosafety cabinet, glove box) | Use only in the chemical fume hood with adequate exhaust ventilation. Safety shower and eye wash must be readily available.  |
| Protective Equipment: | Always handle with gloves that appropriate for particular organic mercury compound you are using. Nitrile or chloroprene gloves usually sufficient for most of the organimercury compounds, but always check with glove manufacturer. Wear safety glasses with side shields, faceshield may be recommended. Wear lab coat, long pants and closed-toe shoes.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:  | 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: | Click here to enter text. |

**Training**

* Prior to conduction any work with organic mercury compounds, 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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