High Hazard Operating Procedure (HHOP) Form

Instructions for HHOP at http://ehs.weill.cornell.edu/sites/default/files/highhazard.pdf .

CONTACT INFORMATION

Principal Investigator:	Phone Number:	Bldg/Room:

HIGH HAZARD SUBSTANCE (HHS) INFORMATION

Chemical Name:
Synonym:

CAS #:
Optional information: Manufacturer: Product #:

Primary High Hazard Classification: DANGER

Acutely toxic ☐ Fatal if swallowed **H300** ☐ Fatal in contact with skin **H310** ☐ Fatal if inhaled **H330**

Water reactive: ☐ In contact w/ water, release flammable gas which may ignite spontaneously **H260**

Pyrophoric liquids or solids ☐ Catches fire spontaneously if exposed to air **H250**

Explosive ☐ H200 ☐ H201 ☐ H202 ☐ H203 ☐ H204 ☐ H205

Extremely flammable gas ☐ H220 ☐ H221

Self-heating; may catch fire ☐ H251

Physical state:	**Concentration**:
Maximum quantity kept on hand:	Estimated rate of use (e.g., grams/month):

Reactivity and Incompatibility:

SIGNIFICANT ROUTE(S) OF EXPOSURE (CHECK ALL THAT APPLY)

☐ **Inhalation** ☐ **Skin contact** ☐ **Percutaneous injection** ☐ **Eye contact** ☐ **Ingestion**

ADDITIONAL MATERIALS TO BE REVIEWED BEFORE USING THIS HHS

Document Name	Location of document
☒ Safety Data Sheet (SDS)	http://ehs.weill.cornell.edu/safety/chemical-safety/material-safety-data-sheets-msdss ☐ Other:
☐ EHS Update(s): Toxic Powder Weighing	http://ehs.weill.cornell.edu/sites/default/files/powderweighing.pdf
☐ Laboratory / Experimental Protocol (specify) _____	
☐ Other:	
☐ Other:	

EXPOSURE CONTROLS

Ventilation / Isolation: Personnel must work under/in the following equipment to minimize personal exposure**:**

☐ Chemical hood ☐ Glove box /AtmosBag * ☐ BioSafety Cabinet ☐ Balance Enclosure ☐ Other (list):

* Glove box or AtmosBag, identify gas environment:

Personnel Protective Equipment (PPE) / Clothing: Lab coats, close-toed shoes, clothing that covers the legs and gloves (disposable latex or nitrile) are the minimum PPE requirements for all personnel working in the lab.

Identify additional PPE requirements for work with HHS:

Protective clothing: ☐ Disposable lab coat ☐ Fire-resistant lab coat (e.g., Nomex) ☐ Others (list):

Face / Eyes: ☐ Face shield ☐ Chemical splash goggles ☐ Safety glasses

Gloves (type): ☐ Respirator (type):

USE AND STORAGE

Authorized personnel: Identify categories of laboratory personnel who could obtain approval to handle and use this HHS:

☐ Principal Investigator ☐ WCMC Employees/Staff ☐ WCMC Students ☐ Volunteers

☐ Post-Doctoral Employees ☐ Other (describe):

☐ **Personnel must not work alone in the laboratory while handling this material.**

Laboratory Protocol / Procedure: Briefly outline the protocol including how it is used, starting, working, final, and waste concentrations:

Vacuum system used? ☐ Yes ☐ No If yes, ☐ Cold trap ☐ Filter ☐ other (list):

Administered to animals? ☐ Yes ☐ No If yes, is a RARC Protection and Control Form completed? ☐ Yes ☐ No

Use Location (bldg/rooms):	**Storage Location (bldg/rooms):**
Check all that apply to HHS only: ☐ Entire lab ☐ Chemical hood ☐ Designated area: ☐ Other (list):	Check all that apply to HHS only: ☐ Refrigerator / freezer ☐ Hood ☐ Double containment ☐ Vented cabinet ☐ Flammable liquid storage cabinet ☐ Other (list):

Hazard Communication and Signage: Confirm that the hazards of HHS are communicated to laboratory personnel and visitors where HHS is stored and used.

☐ All containers are clearly labeled with the identity of the High Hazard Substance.

☐ Designated storage and use locations within laboratory have signage identifying the HHS's presence.

☐ For entire lab use cases: Health and Safety Door Sign (HSDS) at all lab entrances is updated to communicate the HHS's presence.

MEDICAL ATTENTION AND FIRST-AID

Laboratory personnel should call NYP Emergency Medical Service at (212)472-2222 or 911 for immediate medical treatment.

Are special first-aid supplies or procedures required (e.g., antitoxin) for work with this material? ☐ Yes ☐ No

If Yes, attach the specific procedures to be followed post exposure to this form.

DECONTAMINATION

Are special decontamination procedures required for this HHS? ☐ Yes ☐ No If Yes, provide information below.

Identify items that require decontamination:

☐ Work areas ☐ Non-disposable equipment ☐ Glassware ☐ Disposable lab equipment and supplies

☐ Other (list):

Decontamination Method (describe):

EMERGENCY PROCEDURES AND SPILL RESPONSE

Emergency Safety Equipment: In addition to an eyewash station, emergency shower and ABC fire extinguisher are any **other specialized** emergency spill control or clean-up supplies required when working with this HHS? ☐ Yes ☐ No

If yes, list all required supplies/equipment with locations:

WASTE MANAGEMENT AND DISPOSAL

Identify waste management methods for all research and waste by-products associated with this HHS:

☐ Chemicals wastes are collected and disposed as hazardous waste via EHS including chemically-contaminated sharps.

☐ Neutralization or deactivation in laboratory prior to disposal. Requires EHS pre-approval. Describe method:

☐ HHS is EPA Acutely Toxic Chemical. Collect Sharps and used containers as Hazardous Waste.

☐ Other disposal method. Requires EHS pre-approval. Describe method:

Chemical Waste Storage Location:

TRAINING

All laboratory personnel must at a minimum complete the annual EHS Laboratory Safety Training.

The Principal Investigator is responsible for ensuring that all lab personnel complete the following prior to handling and using this HHS:

- ☒ Read the SDS and HHOP.
- ☐ Hands-on training with the PI or other knowledgeable and experienced senior laboratory staff.
- ☐ Always work under close supervision of the PI or other knowledgeable and experienced senior laboratory staff.
- ☐ Other (list):

PRINCIPAL INVESTIGATOR APPROVAL

Approval of the Principal Investigator

Signature _____ Effective Date _____