

ACUP ID number: EP-2		
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EP – 2: SOP on MPTP Protocol

If possible, order the MPTP solutions at the required concentrations directly from the manufacturer. This would eliminate the risk associated with preparing the solutions in the lab. If pre-made solutions cannot be obtained, purchase the MPTP in hydrochloride or tartrate salt form rather than as free base. Preparation of the solutions must take place within a chemical fume hood or exhausted bio-safety cabinet (BSC)

Use a 10% bleach solution to deactivate MPTP.

Purchase the smallest quantity of MPTP needed for the research. MPTP and MPTP-solutions must be stored in labeled, tightly capped containers. The container must be properly labeled with the identity of the hazardous contents (i.e., MPTP) and the appropriate hazard warning (i.e., neurotoxin). The primary container for MPTP must be placed in a sealed, leak-proof, unbreakable secondary container, which must also be labeled as described above. The MPTP and MPTP solutions must be stored in a locked area or cabinet to prevent unauthorized use.

Before working with MPTP, post the appropriate signage.

In preparing solutions, line the fume hood/BSC with chux pads and wear appropriate PPE. After completion, saturate the chux pads with freshly-prepared* 10% bleach solution and wait 10 minutes. Then, carefully fold up the chux pad and place in a trash bag. Seal this bag and place into a second bag. After sealing the second bag, discard into a biohazard box.

Injection of the mice should be done in a similar manner in a chemical fume hood/BSC.

After injection, the mice should be kept in a chemical fume hood, exhausted BSC, or segregated animal cage rack for 72 hours. The bedding should not be changed during this time period. After the 72 hour period, the mice can be moved to clean cages. The cage change must be done in a fume hood or exhausted BSC.

We would strongly recommend that disposable cages be used to house the mice for the 72 hour post injection period. If disposable cages are used, after removing the lid, thoroughly saturate the bedding with freshly prepared 10% bleach solution in the fume hood and spray down the interior and exterior of the cage. This should be done by trained laboratory staff (not Animal Services staff) and left for 10 minutes. After 10 minutes, follow the double bagging procedure described above and disposed of the entire cage in a biohazard box. The lids should be soaked in a 10% bleach solution for 10 minutes, after which time they can be given to Animal Service staff for processing.

If re-usable cages are used, the bedding material in the cage should be saturated with the freshly prepared 10% bleach solution and left to sit for 10 minutes. After 10 minutes, dispose of the decontaminated bedding using double bags as described above. The cage and lids should be soaked in the 10% bleach solution for 10 minutes, after which time they can be given to Animal Service staff for processing.

Spills of MPTP solutions should be neutralized with the 10% bleach solution as for procedures described above (10-minute contact time). After neutralization, the pads/paper towels used to clean up the spill should be doubled bagged and disposed of in a biohazard box.

Any unwanted MPTP solutions can be neutralized by combining with 10% bleach. The neutralized solution can then either be disposed of down the drain or by placing the sealed container in the biohazard box.

Preparing the solution, and injecting and storing the mice in a certified chemical fume hood, exhausted BSC, or segregated/exhausted cage rack for 72 hours post-injection, will eliminate the need for respiratory protection. If your staff should desire to wear respiratory protection, they must first be cleared by Occupational Health Services and then be fit-tested by HSE.

* The bleach solution should be prepared daily, as bleach will degrade over time.

James Bukowski MS, CIH
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I acknowledge that I have read and understand the JHU Animal Care and Use Program document “**SOP on MPTP Protocol**” and I will follow this procedure. I agree to bring any deviations in this procedure to the attention of my supervisor/GPS Working Group.

Name (Print)

Date

Signature