1-Methyl-2-pyrrolidinone

Standard Operating Procedure

Lab: Cleanroom (MNTL 235 Gen Chem)

Department: ECE

PI/Manager of Space:

Written By: Thomas O’Brien

**Section 1: Overview**

Type of SOP: [ ] Process [x] Hazardous Material [ ] Hazardous Class of Materials [ ] Equipment

Synopsis:

*Handling and use of 1-Methyl-2-pyrrolidinone (NMP) in the gen chem lab.*

**Section 2: Risk Assessment Summary (Hazards and control measures)**

*Information obtained from performing a risk assessment should be entered into this section.*

Materials:

|  |  |
| --- | --- |
| **Material (name, CAS #, other ID)** | **Hazards** |
| *1-Methyl-2-pyrrolidinone (NMP)* | Acute toxicity (oral, dermal, inhalation), category 4 and respiratory sensitization. All documented in MSDS and on corresponding page on sigmaaldrich.com |
|  |  |

Relevant References for Material Hazards:

|  |
| --- |
| *All listed on sigmaaldrich.com under “1-Methyl-2-pyrrolidinone (NMP)”, catalog number* **M79603** |

Equipment Hazards:

*Equipment is considered a low hazard.*

Hazardous Conditions:

*Conditions are considered a low hazard.*

Technique Hazards:

*Technique is considered a low hazard.*

Personal Protective Equipment

*In addition to standard cleanroom lab safety, the following should also be used:*

*Eyeshield*

*Nitrile Gloves*

Engineering Controls

*This chemical is to only be used in a solvent fume hood*

**Section 3: Procedures**

*For a Hazardous Material: A measured amount of chemical is to be dispensed in a controlled manner from a pipette. For longer exposures or larger volumes please be sure glassware is of adequate size to accomadate.*

**Section 4: Waste Disposal/Cleanup**

*NMP is a solvent and should be stored underneath one of the solvent hoods in MNTL 235. After use, it should be disposed in the non-halogenated solvent containers inside the solvent hoods. For general disposal of non-halogenated solvents, please see SOP applicable to MNTL cleanroom or contact DRS.*

**Section 5: Emergency Response**

*As NMP is a skin and eye irritant, please be aware of the nearest eyewash and chemical showers in case of exposure.*

**Section 6: Additional Information**

Advice:

*Always work with this chemical in a fume hood as it is a respiratory irritant.*

Checklist:

*A checklist can be written in the SOP as a reminder for the steps needed to take in order to perform the procedure. Potential checklist items include:*

[ ] *Read (Material) Safety Data Sheets.*

[ ] *Another researcher is nearby and knows the hazards present.*

[ ] *All calculations are done prior to beginning the procedure.*

[ ] *The required glassware is of the proper size to accommodate all steps of the procedure.*

[ ] *Received necessary immunizations.*

References:

* *DRS Chem Waste and Storage: https://www.drs.illinois.edu/Waste/ChemicalWasteCollectionAndStorage*
* *Chemical Specfic Safety Information http://www.sigmaaldrich.com/catalog/product/sial/m79603?lang=en&region=US*

**Training Documentation**

Signing this document means that you have read and understand all aspects of this Standard Operating Procedure.

The supervisor is the person that acknowledges you took the training and understand the procedure. They can be a lab manager or researcher assigned by the PI to oversee this particular SOP.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name (Printed)** | **Name (Signed)** | **Supervisor** | **Date** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |