

Synple machine installation and use (MilliporeSigma demo)

Setup requirements

- Space: 26 cm x 49 cm (+ space for solvent bottles)
- Power: 110 - 240 V
- dry N₂ connection: 1 bar - 9 bar (not required for demo)

Required Lab equipment

- Chemical fume hood
- Weighing Balance (normal lab accuracy)
- Syringes or pipettes (including needles / pipette tips)
- Measuring cylinder (e.g. 100 mL)
- Spatula
- Common personal protective equipment (lab coat, lab goggles)

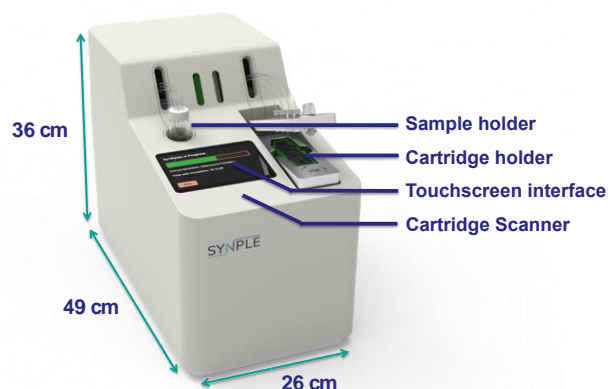
Chemicals / Solvents:

- Dichloromethane (300 mL, normal HPLC grade)
- MeOH (300 mL, normal HPLC grade)
- Diisopropylamine (35 mL, note: this is often mistaken with the more common base Diisopropylethylamine)

Installation

The machine has a footprint of 26 x 49 cm and is 36 cm high. Therefore, it fits easily into a standard size fume cupboard, leaving approximately 2/3 of the space remaining for other activities.

It requires access to a power supply (standard plug and lead supplied) and connection to a nitrogen line (max. 9 bar pressure). See the manual for further details.



Machine Solvents for use with Reductive Amination cartridges (reaction for demo)

Please connect the following solvents to the color-coded solvent lines:

		Amount for demo	Millipore-Sigma SKU Nr
Green	S1: CH ₂ Cl ₂ HPLC grade	300 mL	34856 or 32222
Blue	S2: –		
Red	S3: MeOH HPLC grade	200 mL	34860
Yellow	S4: Diisopropylamine (175 mL) in MeOH (325 mL) for 500 mL	100 mL (35 mL DIPA, 65 mL MeOH)	38290 and 34860
Orange	S5: –		

Solvents and materials required for reaction types (not training):

Materials and solvent overview

Vials for reaction setup:

Clear glass vials: SKU [27379](#)
 Amber glass vials: SKU [27382](#)
 Screw cap for vials: SKU [27186](#)

Magnetic stirbar for reaction vial: SKU [Z283789](#)
 Crossed magnetic stirbar: SKU [Z189847](#)

Heterocycle formation cartridges	
Solvent	MilliporeSigma SKU
Dichloromethane anhydrous	270997 (dry)
Hexafluoroisopropanol, anhydrous	105228
Tetrahydrofuran	186562

Reductive amination cartridges	
Solvent	MilliporeSigma SKU
Dichloromethane	34856 or 32222 or 270997 (dry)
Diisopropylamine	38290
MeOH	34860

PROTAC (degrader) cartridges	
Solvent	MilliporeSigma SKU
Dichloromethane	34856 or 32222 or 270997 (dry)
Diisopropylamine	38290
MeOH	34860
Isopropanol	34863

Biotin cartridges	
Solvent	MilliporeSigma SKU
Dichloromethane	34856 or 32222 or 270997 (dry)
Diisopropylamine	38290
MeOH	34860

N-Boc protection cartridges	
Solvent	MilliporeSigma SKU
Dichloromethane	34856 or 32222 or 270997 (dry)
MeOH	34860

N-Boc deprotection cartridges	
Solvent	MilliporeSigma SKU
Dichloromethane	34856 or 32222 or 270997 (dry)
MeOH	34860
Dimethoxyethane (DME)	259527

Mitsunobu	
Solvent	MilliporeSigma SKU
Dichloromethane	34856 or 32222 or 270997 (dry)
Ethanol	459844
Diisopropylamine	38290

Deoxyfluorination	
Solvent	MilliporeSigma SKU
Dichloromethane, anhydrous	270997 (dry)
Toluene	244511
MeOH	34860
Acetonitrile	34851

Azide formation	
Solvent	MilliporeSigma SKU
Acetonitrile	34851
MeOH	34860

Amide formation	
Solvent	MilliporeSigma SKU
Dichloromethane	34856 or 32222 or 270997 (dry)
MeOH	34860

Silyl deprotection	
Solvent	MilliporeSigma SKU
Dichloromethane	34856 or 32222 or 270997 (dry)
MeOH	34860