



The Buchi 20/40/60 rule

Recommended settings on a rotary evaporator.

1. Set **bath temperature** at **60°C** – It does not need to be higher!!!
2. The **cooling water** temperature should be below **20°C**.
3. Adjust the needed **vacuum** for a boiling point of **40°C** according to list of solvents below.

LIST OF SOLVENTS		BUCHI
Solvent	Formula	Vacuum (mbar) for bp at 40°C
Acetic acid	C ₂ H ₄ O ₂	44
Acetone	C ₃ H ₆ O	556
Acetonitrile	C ₂ H ₃ N	226
N-Amyl alcohol, n-Pentanol	C ₅ H ₁₂ O	11
n-Butanol	C ₄ H ₁₀ O	25
tert. Butanol, 2-Methyl-2-Propanol	C ₄ H ₁₀ O	130
Butylacetate	C ₆ H ₁₂ O ₂	39
Chlorobenzene	C ₆ H ₅ Cl	36
Chloroform	CHCl ₃	474
Cyclohexane	C ₆ H ₁₂	235
Dichloromethane, Methylenechloride	CH ₂ Cl ₂	atm. press.*
Diethylether	C ₄ H ₁₀ O	atm. press.*
1,2,-Dichloroethylene (trans)	C ₂ H ₂ Cl ₂	751
Diisopropylether	C ₆ H ₁₄ O	375
Dioxane	C ₆ H ₁₀ O ₂	107
Dimethylformamide (DMF)	C ₃ H ₇ NO	11
Ethanol	C ₂ H ₅ O	175
Ethylacetate	C ₄ H ₈ O ₂	240
Ethylmethylketone	C ₅ H ₁₀ O	243
Heptane	C ₇ H ₁₆	120
Hexane	C ₆ H ₁₄	335
Isopropylalcohol	C ₃ H ₈ O	137
Isoamylalcohol, 3-Methyl-1-Butanol	C ₅ H ₁₂ O	14
Methanol	CH ₃ O	337
Pentane	C ₅ H ₁₂	atm. press.*
n-Propylalcohol	C ₃ H ₇ O	67
Pentachloroethane	C ₂ HCl ₅	13
1,1,2,2,-Tetrachloroethane	C ₂ H ₂ Cl ₄	35
1,1,1,-Trichloroethane	C ₂ HCl ₃	300
Tetrachloroethylene	C ₂ Cl ₄	53
Tetrachloromethane	CCl ₄	271
Tetrahydrofurane (THF)	C ₄ H ₈ O	357
Toluene	C ₇ H ₈	77
Trichloroethylene	C ₂ HCl ₃	183
Water	H ₂ O	72
Xylene	C ₈ H ₁₀	25

* -850 mbar recommended