

Proficiency Testing (PT) at the IFA, List of Chemicals

1 PT Organic Solvents and PT VOC

| Substance | CAS No. | Purity | Product No. | Manufacturer |
|-----------------------------------|----------|--------------|-----------------|-----------------|
| Benzene | 71-43-2 | ≥ 99 % | 00156302 00250 | Sigma-Aldrich |
| 1-Butanol | 71-36-3 | 99.4 % | 31068-500ML | Alfa Aesar |
| 2-Butanol | 78-92-2 | ≥ 99 % | 20812.295 | VWR Chemicals |
| iso-Butanol | 78-83-1 | ≥ 99 % | 20833.297 | VWR Chemicals |
| Butanone | 78-93-3 | ≥ 99.50 % | 04380.1L | Fluka |
| 2-Butoxyethanol | 111-76-2 | ≥ 99 % | 8.01554.1000 | Merck |
| 2-(2-Butoxyethoxy)ethyl acetate | 124-17-4 | ≥ 99.2 % | 537535-1L | Sigma Aldrich |
| 2-Butoxyethyl acetate | 112-07-2 | > 99 % | 1.01395.1000 | Merck |
| Isobutyl acetate | 110-19-0 | ~ 99 % (GC) | U5920 | Fluka |
| n-Butyl acetate | 123-86-4 | 99.5 % | 402842-500 mL | Sigma-Aldrich |
| 3-Carene | 498-15-7 | 90 % | AB139263 | ABCR |
| Cumene | 98-82-8 | 99 % | A11864.AK | Alfa Aesar |
| Cyclohexane | 110-82-7 | ≥ 99.8 % | 1.00667.1000 | Merck Millipore |
| Decamethylcyclopentasiloxane | 541-02-6 | ≥ 97 % | 8.14751.0250 | Merck |
| n-Decane | 124-18-5 | zur Synthese | 8.20383.1000 | Merck Millipore |
| Diethylene glycol monobutyl ether | 112-34-5 | ≥ 98 % | 32250 | Fluka |
| n-Dodecane | 112-40-3 | ≥ 98 % | 44020 | Fluka |
| Ethanol | 64-17-5 | abs. | 1.00983.1011 | Merck |
| Ethyl acetate | 141-78-6 | > 99.8 % | 1.00789.1000 | Merck |
| Ethylbenzene | 100-41-4 | ≥ 99 % | 8.01372.1000 | Merck |
| 2-Ethoxy ethanol acetate | 111-15-9 | 98+ % | A13639-500 mL | Alfa Aesar |
| n-Heptane | 142-82-5 | < 99 % | A19894.AP | Alfa Aesar |
| n-Hexane | 110-54-3 | ≥ 99 % | 00139386 000500 | Sigma-Aldrich |
| 2-Methoxyethanol | 109-86-4 | 99 % | A17459-500ML | Alfa Aesar |
| 1-Methoxy-2-propanol | 107-98-2 | ≥ 99.5 % | 484407-1L | Sigma Aldrich |
| 1-Methoxy-2-propanol acetate | 108-65-6 | 99.5+ % | 484431 00100 | Sigma-Aldrich |
| Methylcyclohexane | 108-87-2 | ≥ 99 % | A16057.AP | Alfa Aesar |
| 4-Methyl-2-pentanone | 108-10-1 | 98.50 % | 360511-500mL | Sigma Aldrich |
| n-Octane | 111-65-9 | zur Synthese | 8.06910.1000 | Merck Millipore |
| n-Pentadecane | 629-62-9 | ≥ 98 % | 76510 | Fluka |
| 2-Phenoxyethanol | 122-99-6 | | P1126 | Sigma |
| α-Pinene | 80-56-8 | 98 % | 147524-250mL | Aldrich |
| 1-Propanol | 71-23-8 | > 99.5 % | 43848.AP | Alfa Aesar |
| 2-Propanol | 67-63-0 | for Analysis | 1.09634.1000 | Merck |

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| n-Tetradecan | 629-59-4 | ≥ 99 % | 172456100gr | Aldrich |
| 1,2,3-Trimethylbenzene | 526-73-8 | 90 % | SAFAT3202-50ML | Aldrich |
| 1,2,4-Trimethylbenzene | 95-63-6 | ≥ 98 % | 8.14505.0500 | Merck |
| Toluene | 108-88-3 | for Analysis | 1.083.251.000 | Merck Millipore |
| m-Xylene | 108-38-3 | 99 % | 00134449 000500 | Sigma-Aldrich |
| p-Xylene | 106-42-3 | 99 % | 134449-500ml | Sigma-Aldrich |

Updated: 11/2018

2 PT Aldehydes

| Substance | CAS No. | Purity [%] | Product No. | Manufacturer |
|------------------|------------|------------------------|---------------|--------------|
| Acetaldehyde | 75-07-0 | ≥ 99 % | 8.00004.0500 | Merck |
| Butyraldehyde | 123-72-8 | ≥ 99 % | 8.015555.0100 | Merck |
| Glyoxal-solution | 107-22-2 | Assay~40 % in water | 50649 | Fluka |
| Paraformaldehyde | 30525-89-4 | ≥ 95 % | 8.18715.0100 | Merck |
| Propionaldehyde | 123-38-6 | ≥ 98 % | 8.22133.0100 | Merck |

Updated: 11/2018

3 PT Inorganic Acids

| Substance | CAS No. | Product No. | Manufacturer |
|--------------------------------|-----------|---------------|--------------|
| Anhydrous sodium carbonate | | 71350 | Fluka |
| Sodium hydrogen carbonate | | 1.06329.0500 | Merck |
| Orthophosphoric acid 85 % | 7664-38-2 | 1.00573.1000 | Merck |
| Nitric acid 65 % | 7697-37-2 | 1.00441.1000 | Merck |
| Fuming Hydrochloric acid, 37 % | 7647-01-0 | 1.00317.25000 | Merck |
| Sulfuric acid 2.5 mol/L | 7664-93-9 | 1.09912.0001 | Merck |

Updated: 11/2018

4 PT Metals

| Substance | CAS No. | Purity [%] | Product No. | Manufacturer |
|---------------------------------|-----------|--------------|--------------|---------------|
| Lead(II) acetate trihydrate | 6080-56-4 | > 99.5 % | 26483.231 | VWR Chemicals |
| Cobalt(II) acetate tetrahydrate | 6147-53-1 | > 99 % | 1.02530.0250 | Merck |
| Acetic acid 100% | | 99.0-100.5 % | 20102.292 | VWR Chemicals |
| Copper(II) acetate monohydrate | 6046-93-1 | 99-102 % | 1.02711.0250 | Merck |
| Anhydrous manganese(II) acetate | 638-38-0 | > 98 % | B23708 | Alfa Aesar |
| Nickel(II) acetate tetrahydrate | 6018-89-9 | 98+ % | A13026 | Alfa Aesar |
| Zinc acetate dihydrate | 5970-45-6 | 98 – 101 % | 11559 | Alfa Aesar |

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