



## EXTRA

## Reference Standards

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### To calibrate your Analytical Instruments

- Large Selection
- Certified
- Cost-Effective



## 1 Sucrose (Brix) Standards

**Reagecon**

Certified stabilized Sucrose (Brix) Standards.

- ISO17025 accredited
- Uncertainty of measurement of 0.11% for all Brix values @ 20°C
- 12 month shelf life
- Provided in high quality HDPE 15 ml dropper bottles.

Brix	PK	Cat. No.
%		
0	1	BS00S
5	1	BS05S
10	1	BS10S
15	1	BS15S
20	1	BS20S
30	1	BS30S
40	1	BS40S
50	1	BS50S
60	1	BS60S

## 2 Refractive Index standards

**Reagecon**

Certified standards with values expressed in Refractive Index (R.I) units nD.

- ISO17025 accredited with an uncertainty of measurement up to  $\pm 0.00014$  nD units @ 20°C
- 12 month shelf life
- Aqueous Based
- Convenient high quality 15 ml HDPE dropper bottle.

Refractive Index at 20 °C	PK	Cat. No.
1.34325nD	1	RIBS07S
1.34782nD	1	RIBS10S
1.37233nD	1	RIBS25S
1.38115nD	1	RIBS30S
1.39032nD	1	RIBS35S
1.40978nD	1	RIBS45S
1.42009nD	1	RIBS50S
1.44193nD	1	RIBS60S

# Calibration standards

## Standards for Flame photometers



**Reagecon**

Suitable for calibration, control, IQ/OQ and method validation. Compatible with all Flame Photometry Instruments. Available as single element analytical standards (in ppm) or Multi-element standards (in mmol/l). NIST traceable. HDPE bottles of 500 ml.

Type	Measuring range	PK	Cat. No.
Barium	1000 ppm	1	FIBA1
Barium	3000 ppm	1	FIBA3
Lithium	1 mmol/L	1	FCL1001
Lithium	1000 ppm	1	FIL11
Potassium	1000 ppm	1	FIK1
Sodium	1000 ppm	1	FINA1
Calcium	1000 ppm	1	FICA1
Sodium / Potassium	100 / 100 mmol/L	1	FCNK3
Sodium / Potassium	120 / 2 mmol/L	1	FCNK4
Sodium / Potassium	140 / 5 mmol/L	1	FCNK5
Sodium / Potassium	160 / 8 mmol/L	1	FCNK1
Sodium / Potassium	160 / 80 mmol/L	1	FCNK2
Rinse solution	-	1	FIRINSE5

## Turbidity Standards



**Reagecon**

Highly accurate turbidity standards composed of suspended microspheres, suitable for Instrument calibration and control of all turbidity meters. Stable, shelf life of 2 years (from Date of Manufacturing). NIST traceable, US EPA approved and tested in compliance with ISO 7027. HDPE bottles of 100 ml.

Two ranges available:

- Ratio range for Ratio Turbidity Measuring instruments (measure of the scattered light from the sample at a 90° angle from the incident light, plus at additional angles (several detectors))
- Non Ratio for Non Ratio Turbidity Measuring instruments will measure the scattered light from the sample at a 90° angle from the incident light (one detector)

Type	Description	PK	Cat. No.
CRS-0.0	Non Ratio 0.0 NTU	1	CRS-0.0-100
CRS-0.1	Non Ratio 0.1 NTU	1	CRS-0.1-100
CRS-20	Non Ratio 20 NTU	1	CRS-20-100
CRS-200	Non Ratio 200 NTU	1	CRS-200-100
CRS-800	Non Ratio 800 NTU	1	CRS-800-100
CRSR-0	Ratio 0.0 NTU	1	CRSR-0-100
CRSR-0.1	Ratio 0.1 NTU	1	CRSR-0.1-100
CRSR-15	Ratio 15 NTU	1	CRSR-15-100
CRSR-100	Ratio 100 NTU	1	CRSR-100-100

## Chemical Oxygen Demand (COD) Standards



**Reagecon**

These standards are ideal for use as Control Standards to verify that correct analysis for COD has taken place. Extensive range (10 to 60,000 ppm), NIST traceable, 2 years shelf-life. HDPE bottle of 500 ml.

Type	Measuring range mg / l	PK	Cat. No.
COD10	10	1	COD10
COD20	20	1	COD20
COD50	50	1	COD50
COD100	100	1	COD100
COD200	200	1	COD200
COD500	500	1	COD500
COD600	600	1	COD600
COD1000	1000	1	COD1000
COD1300	1300	1	COD1300
COD1500	1500	1	COD1500
COD2000	2000	1	COD2000
COD3000	3000	1	COD3000
COD5000	5000	1	COD5000
COD6000	6000	1	COD6000

## Melting point Standards



**Reagecon**

High Purity range compatible with all Melting Point Instruments. Available as Single Melting Point Standard or as a Set of 3 different Standards. Glass bottles of 1 g. Sets include 3 bottles of 1 g

Type	Description	PK	Cat. No.
RMP048	Benzophenone +47 to +49 °C	1	RMP048
RMP082	Vanillin +81 to +83 °C	1	RMP082
RMP122	Benzoic Acid +121 to +123 °C	1	RMP122
RMP132	Phenacetin +133 to +135 °C	1	RMP132
RMP159	Salicylic Acid +158 to +160 °C	1	RMP159
RMP236	Caffeine +235 to +237 °C	1	RMP236
RMP284	Anthraquinone +283 to +286 °C	1	RMP284
RMPSET1	Sulphanilamide, Caffeine, Vanillin	3	RMPSET1
RMPSET2	Benzophenone, Benzoic Acid, Anthraquinone	3	RMPSET2

## Cryoscope standards



Reagecon

Compatible for use on all Cryoscopes compliant to International Reference Standard ISO5764/IDF108 for the determination of Freezing Point in milk. High accuracy, 1 year shelf-life (from Date of Manufacturing). Supplied in 250 and 100ml HDPE bottle and a convenient cap with collapsible filling nozzle

Type	Measuring range	Capacity	PK	Cat. No.
		ml		
MTR01025	0.000 °C	250	1	MTR01025
MTR02025	-0.408 °C, 422 m°H	250	1	MTR02025
MTR020X	-0.408 °C, 422 m°H	100	1	MTR020X
MTR03025	-0.512 °C, 530 m°H	250	1	MTR03025
MTR030X	-0.512 °C, 530 m°H	100	1	MTR030X
MTR03525	-0.557 °C, 577 m°H	250	1	MTR03525
MTR04025	-0.600 °C, 621 m°H	250	1	MTR04025
MTR040x	-0.600 °C, 621 m°H	100	1	MTR040X

## Osmolality standards



Reagecon

Osmolality Standards for Calibration and Control, compatible with all types of Osmometers. Extensive range: 50 to 3000 mOsmol/kg H<sub>2</sub>O, ISO17025 certified. Values from 100 to 700 mOsmol/kg according to European Pharmacopoeia 2.2.35 and US Pharmacopoeia 785. 12 ampoules of 5 ml each.

Type	Description	PK	Cat. No.
RE-OSM-50	50 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-50
RE-OSM-100	100 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-100
RE-OSM-200	200 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-200
RE-OSM-290	290 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-290
RE-OSM-300	300 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-300
RE-OSM-400	400 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-400
RE-OSM-500	500 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-500
RE-OSM-600	600 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-600
RE-OSM-700	700 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-700
RE-OSM-850	850 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-850
RE-OSM-900	900 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-900
RE-OSM-1000	1000 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-1000
RE-OSM-1500	1500 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-1500
RE-OSM-2000	2000 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-2000
RE-OSM-2500	2500 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-2500
RE-OSM-3000	3000 mOsmol/kg H <sub>2</sub> O	12	RE-OSM-3000

## Pt-Co Reference Standards



Levibond

Platinum-Cobalt-Scale (HAZEN/APHA) standards for colorimetric verifications. Bottles of 500 ml, certified according to QS System, ISO 9001. Shelf life 12 months.

Description	PK	Cat. No.
Pt-Co Colour 5	1	6.232 070
Pt-Co Colour 10	1	6.240 666
Pt-Co Colour 15	1	6.232 071
Pt-Co Colour 30	1	6.223 354
Pt-Co Colour 50	1	6.207 177
Pt-Co Colour 100	1	6.240 667

# LABORTOPS



## Certified reference materials for qualifying spectrophotometer



9.190 980

To maintain constant good measurement results, a regular review of the accuracy of the spectrophotometer is required. The certified reference materials (calibration standards) of the DIN EN ISO 17025 accredited Hellma Analytics calibration laboratory are traceable to the primary standards of NIST (National Institute of Standards and Technology) and meet the requirements of the major pharmacopoeias (e.g. EP, DAB, USP).

### Your benefits:

- High quality of the measurement results
- International comparability of measurement results
- Meeting the requirements of the major pharmacopoeias (EP, DAB, USP)
- Results traceable to NIST primary standards
- 30 years warranty on the reference materials

### Scope of delivery:

- Certified reference materials (Calibration Standards) in quality storage box
- DAKKS Calibration Certificate (DIN 17025)
- Handling guidelines

**Glass Filters 666-S000:** Complete sets for testing spectrophotometers. Photometric accuracy and wavelength accuracy in the visible spectral region. (VIS area)

**Liquid Filters 667.033-UV:** Complete sets for testing spectrophotometers according to European Pharmacopoeia, wavelength accuracy, photometric accuracy, stray light behaviour, resolution. (UV area)

Type	Capacity	Material	Wave-length nm	PK	Cat. No.
Glass Filters 666-S000	666-F1	Holmium Oxide Glass Filter	279, 361, 453, 536, 638	1	9.190 973
	666-F2	Neutral Density Glass Filter NG 11	440; 465; 546.1; 590; 635		
	666-F3	Neutral Density Glass Filter NG 5	440; 465; 546.1; 590; 635		
	666-F4	Neutral Density Glass Filter NG 4	440; 465; 546.1; 590; 635		
	666-F0	Empty Filter Mount			
Liquid Filters 667.033-UV	667.100-UV	Potassium Chloride + blank	198, 200 (zertifiziert)	1	9.190 980
	667.200-UV	Toluene in Hexane + blank	266, 269		
	667.305-UV	Potassium Dichromate in HClO <sub>4</sub> + blank	235, 257, 313, 350, 430		
	667-UV5	Holmium Perchlorate in Perchloric Acid	241.15; 287.15; 361.5; 536.3		

Filters also available individually.

## Single filter for check of the wavelength accuracy

Type	Description	Wave-length nm	PK	Cat. No.
667-UV5	Liquid filter UV5, Holmium oxide in Perchloric acid	240 - 650	1	6.227 666
667-UV45	Liquid filter UV45, Holmium and Didymium in Perchloric Acid	240 - 870	1	6.286 793
666-F1	Glass filter F1, Holmium oxide	279 - 638	1	6.201 067
666-F7A	Glass filter F7, Didymium	270 - 340	1	7.612 486