

Interpreting results

Data generated using Advanced Instruments standards and reference solutions may be analyzed according to the accuracy and precision specifications of the instrument (see *Performance characteristics* in the *Advanced Osmometer Model 2020 User's Guide* (p/n 2025)).

Laboratories may choose to employ one, two, or three standard deviations (SD) for accuracy based on what is relevant in their laboratories. For normally distributed data, approximately 68% of the individual data values will fall within one standard deviation of the mean, approximately 95% within two standard deviations, and approximately 99.7% within three standard deviations.

Advanced Instruments Standards and Reference Solutions	Precision	Accuracy (mOsm/kg H ₂ O)		
		1 SD	2 SD	3 SD
Clinitrol™ 290 Reference Solution	Standard deviation ≤ 3 mOsm/kg H ₂ O	287-293	284-296	281-299
50 mOsm/kg Calibration Standard	Standard deviation ≤ 3 mOsm/kg H ₂ O	47-53	44-56	41-59
100 mOsm/kg Calibration Standard	Standard deviation ≤ 3 mOsm/kg H ₂ O	97-103	94-106	91-109
200 mOsm/kg Calibration Standard	Standard deviation ≤ 3 mOsm/kg H ₂ O	197-203	194-206	191-209
400 mOsm/kg Calibration Standard	Standard deviation ≤ 3 mOsm/kg H ₂ O	397-403	394-406	391-409
500 mOsm/kg Calibration Standard	Coefficient of variation $\leq 0.75\%$	496-504	492-508	488-512
850 mOsm/kg Calibration Standard	Coefficient of variation $\leq 0.75\%$	843 -857	836-864	829-871
900 mOsm/kg Calibration Standard	Coefficient of variation $\leq 0.75\%$	893-907	886-914	879-921
1000 mOsm/kg Calibration Standard	Coefficient of variation $\leq 0.75\%$	992-1008	984-1016	976-1024
1500 mOsm/kg Calibration Standard	Coefficient of variation $\leq 0.75\%$	1488-1512	1476-1524	1464-1536
2000 mOsm/kg Calibration Standard	Coefficient of variation $\leq 0.75\%$	1985-2015	1970-2030	1955-2045



Two Technology Way / 781-320-9000
 Norwood, Massachusetts 02062, USA
 800-225-4034 Fax: 781-320-8181
 aicompanies.com

Model 2020 Osmometer

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